Korean Industrial Policy: From the Arrest of the Millionaires to Hallyu

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Within days after he seized power in the 1961 military coup d'état in South Korea, Major General Park Chung-hee ordered the arrest of fifty-one of the country's leading businessmen. The head of Samsung, the largest chaebol (family-owned conglomerate), who had been travelling in Japan, was immediately placed under house arrest when he returned to Korea. The charge in all cases was "illicit profiteering."

Park and his military junta ruled over a desperately poor country. South Korea's per capita GDP in 1961 was less than $100, lower than that of Guatemala, Cameroon, or Chad. This low number, however, did not truly reflect South Korea's actual level of development. The country had a modernized military, mass literacy, large trading firms, some industrialization, and substantial U.S. aid. (Some of these capabilities have a dark history.[1]) And yet, what was also true in 1961 was that South Korea was poorer than North Korea, whose per capita GDP was nearly a third higher.

Additionally, South Korea stood on the front line of the Cold War, and was part of a U.S. regional security strategy of capitalist states which included Japan and Taiwan. They all faced the threat posed by the Asian Communist countries of China, the USSR, and North Korea. The North Korean invasion of South Korea a decade before had led to nearly a million civilian casualties. The security situation confronting South Korea remained grave and existential.

Park and his military government felt that South Korea desperately needed to industrialize, but American aid, which mostly consisted of consumer goods, wasn't helping on this front. In his memoir, *The Country, The Revolution and I*, Park wrote, "we want a piece of brick rather than a lump of sugar."[2]

The specifics of the charge of "illicit profiteering" included unfair bidding for government contracts, monopolistic sales and foreign exchange practices, and generally living off of government licenses.[3] Given that this broad definition could apply to virtually every Korean chaebol owner at the time, all were vulnerable. In addition to jailing them, Park threatened to confiscate their properties and levy immense fines. After two months in detention, the "illicit profiteers" were released after signing an agreement stating that they would donate all their property when required for national construction. The most important thirteen were given the task of industrializing the country. In effect they were offered a compromise where they could avoid further jail time if they built factories, though they would still have to pay fines by donating company shares. The thirteen business leaders also received further dispensations if they met export targets.[4]

The key sectors targeted by Park and his military government for industrialization were cement, electricity, synthetic fiber, iron, and oil refining. The last was nationalized, as was the banking system. These were not sectors where South Korea enjoyed comparative advantage or even much expertise, but that was exactly Park's point; he believed they were vital to creating a rich nation and strong army.

By arresting the millionaires and then releasing them, Park established the ground rules for a state-business partnership directed toward the goal of industrialization, with the state firmly in charge. Park, in his memoir, wrote of the Meiji Reform in Japan as his influence: "Millionaires who promoted the reform were allowed to enter the central stage, thus promoting national capitalism."[5]

Il SaKong, the former Korean minister of finance (1983–87) and chairman emeritus of the Institute for Global Economics, Korea, interprets the episode this way: "the most important aspect of the measure was that President Park's policies encouraged what we call 'positive-sum entrepreneurship' rather than 'rent-seeking business activities.'"[6]

SaKong, in a book coauthored with Leroy Jones, characterizes "zero-sum entrepreneurship," as activities like the search for monopoly rents, along with foreign exchange arbitrage or land speculation, things that don't increase aggregate resources. In contrast, "positive-sum entrepreneurship" consists of activities that increase productive capacity and benefit society on the whole.[7] Because the windfalls associated with zero-sum entrepreneurship are so profitable, Jones and SaKong argue that it was necessary for Park to step in to forcibly rechannel the activities of the illicit profiteers towards productive sectors required for Korea's development.

It worked, according to SaKong: "We believe the policy was the primary driver of Korea's economic take-off that began in the early 1960s. The total amount of fines collected from the law itself was not significant enough for explaining Korea's take-off."[8]

A Thought Experiment

Imagine, as a thought experiment, that America's leading billionaires were arrested by a military junta and charged with "rent-seeking business activities," "zero-sum entrepreneurship," and not contributing to productive capacity. They could offer various moral and political arguments in their defense. But what economic arguments could they muster? They could try many:

Shareholder capitalism. The billionaires could point out they are merely trying to increase the value of their company for shareholders and maximize their profits given the incentives at hand. If that is a crime, then the problem is in the incentives (which was in effect General Park's argument).

Libertarianism. The billionaires could argue that, when it comes to the economy, the government needs to butt out. They could secretly fund a libertarian political network to spread this message. Or they could publicly make their argument, via the *Washington Post*/Amazon/Whole Foods[9] or Facebook/Instagram/WhatsApp or Bloomberg News or one of Alphabet's companies.

Demand measures and UBI. The billionaires could insist the real growth problems were on the demand side. They could ask the junta if they had considered using Keynesian levers. Or what about Modern Monetary

Theory? If these ideas didn't appease the junta, the billionaires could then play what would seem like a get out of jail free card: universal basic income.

Ineffectiveness of industrial policy. Perhaps the most persuasive economic arguments the billionaires could offer are the strands within mainstream economics attacking industrial policy. This goes well beyond questioning the nonstandard terminology of "zero-sum entrepreneurship." Instead, this approach holds that the state cannot play a constructive role in allocating resources across sectors or crafting the overall composition of the economy, that the idea of targeting specific sectors such as manufacturing is fundamentally outrageous. As Michael Boskin, chairman of George H. W. Bush's Council of Economic Advisers allegedly said (which he denies), "It doesn't make any difference whether a country makes potato chips or computer chips."[10] Economists view sectoral allocations as primarily stemming from free market forces, including consumer preferences and comparative advantage. They are not something anyone should or could dictate.

But these are arguments from twenty-first-century America, not 1960s Korea. Seoul is only fifty kilometers from the DMZ. The Korean millionaires didn't have much choice except to follow Park's orders and redirect their business activities away from rent seeking and financial arbitrage and towards the sectors he demanded; his command to industrialize grew out of the barrel of a gun. Hyung-A Kim, an academic specialist on the period, writes of the chaebol owners, "The consequences of resisting or challenging the state's first five-year plan were severe, whether in terms of their businesses or their personal safety."[11]

Miracle on the River Han

During the following decades of Park's rule, first as dictator and then as president after his democratic election in 1963, Korea's manufacturing output increased dramatically. In the 1970s he revealed his masterstroke: the heavy and chemical industry (HCI) drive.[12] Hyundai Heavy Industries, which built its first ship only in 1973, became the world's largest shipbuilder in just ten years. It was aided on this path when the Korean government declared that any oil delivered to Korea had to use Korean-made ships.

Korea entered a period of hypergrowth. Exports, especially in heavy manufacturing, increased 28 percent annually over most of the 1970s. Real wage growth was the fastest of any industrializing country, including those in previous industrial revolutions, increasing 19 percent annually between 1976 and 1979.[13]

The South Korean economic "takeoff," "hypergrowth," or even "miracle" has been widely studied from many perspectives, particularly in the 1980s and '90s, when there was much debate about its causes. The specific mechanisms at work in Korea's economic takeoff have been most fully articulated by the late MIT economist Alice Amsden in her classic work on the Korean economy, *Asia's Next Giant*.[14] Amsden, expanding on Alexander Gerschkron's historical work on economic backwardness, identifies Korea as a "late industrializer."[15] Whereas the United Kingdom and the United States had industrialized on the basis of invention and innovation, respectively, Korea industrialized by "learning." Late industrializers "borrow" (she doesn't use the word "steal") foreign technology from countries on the technological edge and then adapt, improve, and implement the technology locally.

The state is central to this process. It allocates capital to favored sectors and firms, provides access to easy, if not free, credit, and grants protection from imports. But at the same time firms are subject to relentless "discipline" by the state bureaucracy. As Amsden writes, "the state intervenes with subsidies to distort relative prices in order to stimulate economic activity. In exchange for subsidies the state has imposed performance standards on private firms."[16] State-favored firms are allowed to fail; this isn't state socialism. Rather, they have to reach aggressive export targets in order to keep receiving their subsidies. Domestically, they are prevented from abusing their monopoly power through price controls. Illegal capital flight in South Korea was punishable by death.

Currency manipulation undergirds this whole economic model. (The United States labeled South Korea a currency manipulator in 1988, and it remains on a U.S. Treasury watch list.) Education plays a much less central role. Amsden describes the quality of education in South Korea as "strained" and its role as largely passive in the country's industrialization. Whereas in the U.S. education is the go-to solution for every economic problem, Amsden writes, "the role played by education in economic development ought not to be deified."[17]

Political scientists and economists working in the heterodox tradition tended to view Korea as a variant or special case of the Japanese statist development model. That model had led to Japan's economic takeoff years earlier and was now being applied by President Park in Korea.

For instance, political scientist Jung-En Woo, in her account of Korean economic success, which focuses on how the state channeled financial resource to promote rapid industrialization, writes, “Instead of being the miraculous model of the triumphant procession of neoclassical economics into the mysterious East, the Korean model limns its origins in the relatively ruthless mercantilism of prewar Japan.”[18]

Indeed, President Park was intimately familiar with the economic model of prewar Japan. He was educated at the Japanese Military Academy and served in the Japanese Manchurian army in the sinister Japanese puppet state of Manchukuo. In his memoirs he writes frequently of the importance to him of the Meiji Restoration in Japan, including its concept of “rich nation, strong military.” He borrowed the word “Yushin” for his constitution from the Meiji “Ishin” or “great renewal.” President Park was familiar with postwar Japan as well. This included its long history of state interventions in the economy, and the success of its heavy-industry-focused New Long-Range Economic Plan of 1958–62.

In his book *MITI and the Japanese Miracle*,[19] Chalmers Johnson analyzes the state-guided market system behind the miracle. While Amsden uses the terms “late industrializers” and “learning states” to characterize East Asian economic development, Johnson, writing from a political science perspective about Japan, uses the term “developmental state,” a concept he pioneered. Japan used targeted industrial policies to change the composition of the economy and to industrialize. He identifies four key elements of the Japanese model: an “elite bureaucracy staffed by the best managerial talent available in the system”; “a political system in which the bureaucracy is given sufficient scope to take initiative and operate effectively”; preservation of competition in the economy; and, finally, an agency that controls industrial policy, such as Japan’s Ministry of International Trade and Industry (MITI).

The World according to the World Bank

The period when these books were published, the 1980s and early 1990s, was the time of "Japan as Number One" (it was then the world's largest manufacturing economy), with the "Four Tigers" of Hong Kong, Singapore, South Korea, and Taiwan rising behind it. But this was also the era of the ascendency of laissez-faire ideology, the neoliberal Washington Consensus. The idea that East Asia grew through industrial planning or semi-mythical Meiji Restoration policies was completely at odds with this dominant paradigm.[20]

Differing explanations of what accounted for East Asia's rapid growth came to a head in the World Bank's controversial 1993 report, *The East Asian Miracle: Economic Growth and Public Policy*.[21] Japan, the Bank's second largest funder, wanted a report acknowledging the success of industrial policy based on subsidized credit targeting specific sectors. According to the Japanese view, comparative advantage was not static and could be altered through government interventions. But the Bank's ideology was firmly against sectoral-based industrial policies, only seeing a role for government subsidies when it came to education and infrastructure.

Professor Robert Wade of the London School of Economics, who was previously a World Bank staff economist (and whose father was New Zealand's ambassador to South Korea and Japan), explains the context of this report and the political pressures behind it. Wade says, "the Bank held you had to have a free market in finance because that was most efficient. However, the Japanese were adamant that industrial policy—including directed credit—had worked in Japan, as well as Korea, Taiwan, and Singapore."

The final report held that industrial policy doesn't work, but that directed credit policies could work—an incoherent conclusion, given that directed credit is one of several instruments of industrial policy. "The report was inconsistent, with conflicted message throughout the text," says Wade:

> The inconsistency was no accident. The authors of the report had to respond to the Japanese Ministry of Finance, which paid the Bank a large sum of money to write the report, and which wanted the Bank to say that its favorite policy instrument, directed credit, could be effective. The authors, who were World Bank staff, also had to respond to the ideology of the Bank, which said that industrial policy—wrongly equated to "the state picking winners"—could not be effective.

Wade wrote a line by line analysis of the report's contradictions, published in the *New Left Review* in 1996.[22]

Yet the World Bank insisted that there was a clear takeaway: the growth in East Asia was the result of free markets. "Rapid growth in each economy was primarily due to the application of a set of common, market-friendly economic policies," the Bank's president Lewis Preston wrote in the foreword. "The importance of good macroeconomic management and broadly based educational systems for East Asia's rapid growth is abundantly demonstrated."[23]

These debates from the early 1990s about the wisdom of targeted industrial policy, as opposed to the Washington Consensus, are half-forgotten today, though they couldn't be more relevant. Many of the leading protagonists, such as Amsden and Johnson, are dead. And in the late 1990s the Asian financial crisis and the ongoing stagnation in Japan (arguably stemming from the Plaza Accord) exposed vulnerabilities in the East Asian model. Then the tech revolution took place in the United States. The debate seemed to be over.

The Return of Industrial Policy?

Twenty-five years later, things look very different. The word *neoliberal* is now an insult. The United States has experienced its own financial crisis, exposing the limits of a growth model based on financialization. Though the U.S. economy has created Facebook, Amazon, Apple, Netflix, Google, and other tech giants, it failed to translate its breakthroughs in technology into long-term productivity gains or revived manufacturing. U.S. labor productivity growth has stagnated, averaging only 1.3 percent a year since late 2005, as opposed to the 2.8 percent annual growth seen over the preceding decade.[24] Multifactor productivity in manufacturing industries has actually been declining since 2004.

Pundits and management consultants assured us that tech would lead to the reshoring of advanced manufacturing, but the opposite happened. U.S. manufacturing employment plunged in the 2000s, shortly after China's accession to the World Trade Organization. The locus of manufacturing, as well as innovation in key advanced technologies, ranging from LCD flat-panel displays to electronic ink to lithium-ion batteries, has moved to East

Asia, though all of these technologies were invented in the United States. America is even turning into an "also-ran" in smart phones. Smartphones are all manufactured and—except for Apple's—designed abroad.

Global Smartphone Market, Q2 2019

	Shipments (million units)	Market Share (%)
Samsung (South Korea)	75	23
Huawei (China)	59	18
Oppo (China)	36	11
Apple (USA)	35	11
Xiaomi (China)	32	10
Vivo (China)	28	9

Source: IHS Markit.

The key difference from the 1980s and '90s is the rise of China. China has been experiencing its own economic "hypergrowth" or "takeoff" or "miracle" for thirty years. Though China is sui generis—given its size, Communist Party control, and use of state-owned enterprises (SOEs)—it in some ways fits the developmental state model, and was included in the World Bank's 1993 report.[25] China's manufacturing output is now the largest in the world. Its rise poses a full-blooded strategic challenge to America's economic supremacy, and an intellectual challenge to the neoclassical model of economic growth and the Washington Consensus.

But the mainstream economics profession has hardly changed its views on industrial policy in response to this challenge. "The rise of China hasn't led to much rethinking in the core developmental agenda," Wade says. "The Washington Consensus has been subject to a lot of criticism but it seems to remain the default position at the World Bank and other developmental organizations. The only difference is that fuzzy concepts like 'governance' have been added at the margins." This same insight largely holds true of the academy as well. Sector-based industrial policies remain a controversial, almost taboo topic, even if "horizontal" policies that benefit all firms and sectors, such as education or infrastructure, are widely called for.

Though mainstream economists have hardly embraced the heterodox literature of earlier years on developmental states—or are even aware of it—there has been rethinking in some quarters. New trade models show that free trade is not necessarily an unqualified positive. Gomory and Baumol have built a model that shows there can be "inherent conflicts in trade" between an industrialized country and a newly industrializing one: growth in one comes at the expense of the other.[26] And shockingly, in 2019 the IMF published a working paper, "The Return of the Policy That Shall Not Be Named: Principles of Industrial Policy,"[27] that offered a positive assessment of the role industrial policy played in the growth of East Asia. The paper argued that "the success of the Asian Miracles was not a matter of luck but the result of [true industrial policy]."

But these and the smattering of similar papers are anomalies,[28] far from the main thrust of contemporary economics, which is going in a very different direction. Economics is changing, rapidly; economics is becoming "progressive." This is the economics of gender, race and identity, inequality, oppression, privilege, inclusivity, and power. Not too long ago, economics was one of the few academic fields where professors could be overtly rather than covertly conservative, but today the social justice movement of the humanities is in the process of colonizing it. Identity politics is ascendant.

Nevertheless, this rectification campaign still uses the standard tools and models of mainstream economics: taxation, benefits, deficits. The larger neoclassical framework still applies. The heterodox economists from the industrial policy debates of the 1980s and 1990s were—and often remain—marginalized in the economics profession. Today's progressive economists couldn't be more "establishment." It is unclear if they are truly on the left or are just following today's conventional thinking.

Industrial policy remains largely taboo (with the very big exception of Green policies). There is no acknowledgment of varieties of capitalism, whether "the coordinated market economy" of Germany or the national capitalism of East Asia. There is no acknowledgment that there might be a deep flaw in the overall productive structure of the U.S. economy, or a drift towards "zero-sum entrepreneurship"—issues that the conventional tool kit, even a progressive one, can't fix.

Developmental states offer new ideas and methods for reaching some of the outcomes that progressives are seeking, such as inclusive prosperity. But this approach is remote from the current victim identity framework of U.S. universities, which has shaped the progressive agenda. As a result, American economics has never been more parochial, when it needs to be more global.

America's Economic Backwardness

Rather than trying to shoehorn the rise of China into a Western, neoclassical macro growth model—which would only repeat the controversies of the *East Asian Miracle* report—it might be more fruitful to assess the United States from the perspective of the East Asian "national capitalism" model.

After all, this could be the economics of the future. We await a comprehensive analysis of the United States from this perspective by Chinese scholars. But even without it, a cursory look reveals major gaps in the U.S. approach.

The United States does have a developmental state focused on innovation, but as chronicled by scholars William Bonvillian and Charles Weiss,[29] this model falls short when it comes to implementation. The country does not apply this technological innovation to "legacy" sectors such as energy, transport, construction, and manufacturing, which have fallen behind. And private firms do little to make up for the lack of state support: American corporations like Apple are post-national: they are happy to take the fruits of federally funded innovation but see no reason to manufacture domestically. This situation would be unthinkable to Henry Ford, who increased his Detroit workers' wages so they could buy more. Moreover, when America does innovate and creates new hard technologies, they don't scale domestically, both because of financial constraints and a lack of infant industry protections in the United States.

There is also the financialization of corporations to consider. The financial sector itself is bloated and often rogue; it tends to channel credit to itself rather than to the productive economy. Monopolization and decreased market competition have led to windfall profits for corporations without the need for investment.

In fact, the United States is moving down the skill chain. It is deindustrializing. America still has strengths in the "intangible economy," but most job growth has come in low-skill, low-pay services. It is no longer on the technological frontier in many manufacturing industries, such as machine tools, passenger rail, batteries, electric vehicles, 5G hardware, robotics, etc.—really, most "hard" technologies. It is regressing and becoming economically "backward."

Heavy industries like shipbuilding, which so enchanted General Park and the Japanese, have been gutted in the United States. America, unlike its competitors, does not subsidize commercial shipbuilding, and as a result, it has fallen behind: as of 2015, only 0.35 percent of global commercial ship construction took place in the United States, compared to 37 percent in South Korea, 27 percent in Japan, and 21 percent in China.[30]

There is one upside to this situation. The United States is now in the position of being a late industrializer—like the East Asian "learning state" countries—meaning it too can learn and borrow from those on the technological frontier. As Gerschenkron put it, there are "advantages to backwardness." It's much easier to catch up than to innovate. Using the learning-state approach, the United States can quickly catch up in industries deemed strategically important, such as telecommunications, in which China's Huawei now dominates the production of hardware needed for 5G.

Indeed it would be cruel to American workers not to at least try "late industrialization" as part of an overall developmental strategy. But elite Americans couldn't care less about the ruin of these displaced industries and the resulting loss of manufacturing jobs—heavy industry is hardly the subject of TED Talks. The current preferred policy solution is to tell these formerly middle-class workers to get more education or to move. Their own solution is opioids and deaths of despair.

Professor Dan Breznitz of the University of Toronto cautions, “The real problem of jumping to the next stage is it will cost a huge amount of capital.” Using private capital, relying on entrepreneurs, or merely changing incentives will be insufficient. Breznitz, author of the forthcoming book *Innovation in Real Places: Strategies for Prosperity in an Unforgiving World*, says, “ideally, the political system would enable allocation of capital, but even in the defense industry I don’t know if this will happen.”

If the federal government remains dysfunctional, large states could step in with their own developmental policies. Or the United States could make technology transfer a condition for imports in high-tech industries or any other industry in which it is technologically behind. Catching up is important in advanced manufacturing, but is also a way to restart commoditized manufacturing where things are dire. As Intel’s Andy Grove once said, “abandoning today’s ‘commodity’ manufacturing can lock you out of tomorrow’s emerging industry.”[31]

The central weakness of the “learning state” model is that its institutions are only designed to take the country to the technological frontier. Once it is on the frontier, those exact same institutions might hold the state back from inventing the next frontier. But the fact that the United States is behind in so many areas of manufacturing shows that this assumption no longer holds true. Learning states clearly can innovate. Americans shouldn’t be certain that China won’t dominate the industries of the future, as set out in its own industrial policy promoting advanced manufacturing, “Made in China 2025.”

Hallyu: Culture as an Export Industry

Americans might take comfort in the belief that at least the United States remains unchallenged in supremacy in global pop culture—in its soft power. China might dominate the building of 5G networks, but American firms will dominate the content that flows across them, or so this line of thinking goes. But this is no longer entirely the case. Korea has been able to innovate and to advance the frontiers of the global entertainment industry. In doing so, it has projected its soft power around the world and proved that its developmental model can be applied to the cultural arena. China and other states have noticed, and a new competition between developmental states in the realm of cultural products is just beginning.[32] Enter *Hallyu*.

Hallyu (Korean Wave) refers to the vogue for Korean cultural products. The term was coined by Chinese journalists writing in the *Beijing Youth Daily* in the 1990s. The original *Hallyu* craze across Asia was for K-drama, such as the smash hit series *Winter Sonata*. This was followed by the frenzy for K-pop in China (some accounts claim the decisive moment here was the 2000 performance by the Korean group H.O.T. at the Beijing Workers' Gymnasium). *Hallyu* today includes games, animation, film, food, cosmetics, and also plastic surgery. The Korean Wave, rather than cresting, now has global popularity.

Games are by far the most commercially important *Hallyu* export category. American non-gamers may be more familiar with Korean art cinema, which is the result of cultural-industrial policies including a presidential decree.[33] Most internationally visible of all might be K-pop, which began attracting mainstream attention in the United States with Psy's 2012 "Gangnam Style," the first video to exceed two billion YouTube views.

K-pop is defined by its largely manufactured, institutional character. Rather than "bands," K-pop artists are part of *idol groups.* Idols are not the singer-songwriters of yore crafting their own material on acoustic guitars in their bedrooms—and unlike manufactured American pop talent, they do not even pretend to be. Instead, idols are products of extremely rigorous, multiyear training, often first outside a K-pop talent agency, and then later as an official, contracted agency trainee. Only a small percentage of trainees become idols. Most idol groups last less than three years.

The production of K-pop utilizes a sophisticated global supply chain of choreographers, videographers, and distributors. While a few idols write their own songs, the system mostly relies on an international pool of creative talent. Key songwriting teams have been based in Sweden (Korean lyricists are employed to write the lyrics); more recently there has been a move to use American songwriters, some based in South Korea.

The importance of idol *fandom* is also distinctive. Western pop groups have their own fan bases, but their social media interactions aren't at the same level of intensity as those of K-pop idol groups.[34] Idol groups' cultivation of their social media following is vital to their success. The fans of the leading idol group BTS, for instance, are known as ARMY. When BTS was snubbed at the 2019 Grammys, ARMY took to social media to express their outrage and undertook a systemic effort to push BTS to the top of the charts again. And, just as K-pop production makes use of global networks of talent, so K-pop fandom is borderless: there are BTS ARMYs throughout the world.

K-pop, ultimately, is *post-music.* It is designed for its impact on social media and fandom and needs to be seen (online) rather than just heard. "Idol K-pop is ocular-centric, but not all Korean popular music is," says CedarBough Saeji, a scholar of Korean contemporary culture at Indiana University.

The liberalization of Korean culture is critical for understanding the rise of the Korean Wave. Restrictions on foreign travel were fully lifted in 1988, meaning many *Hallyu* directors have attended LA film schools. Under the dictatorship songs could be banned for sounding too Japanese, or for being vulgar, degenerate, or unwholesome. Today there is freedom of expression. South Korea is a flourishing democracy.

But cultural explanations don't offer the complete story when it comes to *Hallyu*. Korea is a developmental state. A line item equivalent to $280 million for "*Hallyu* assistance"[35] in just one government ministry's budget in 2013 shows there is more to the story (how much other ministries are spending is unclear).

State Intervention:
Correcting Market Failures versus Creating Markets

When the original Korean Wave, K-drama, took off in the 1990s, the government became convinced of the potential for culture to be an export industry. Korean President Kim Dae-jung argued that culture was the industry of the future and should be a national priority. In a 2001 speech, Kim said,

> We should develop *Hallyu* in the direction of making this as lasting and beneficial for our economy. In detail, we should constantly create contents in music, soaps, movies, animations, games, and characters. In 2003, the

> size of creative cultural industry will grow up to $290 billion, which is bigger than the size of the semi-conductor market—which is estimated at $280 billion.

In 2008, President Lee Myung-bak emphasized the importance of *Hallyu* for "national branding and national image" and its role in soft power.[36]

Underpinning the development of the technological aspects of *Hallyu* was the Korean government's 1999 "horizontal" industrial policy, Cyber Korea 21, whose goal was to create a knowledge-based information society. By 2002 Korea had the most extensive broadband participation in the world, a development which supported gaming and online K-pop fandom later on.

But other *Hallyu* policies were more targeted, something anathema to Western planners. Hye-Kyung Lee of King's College London, whose research focus is on cultural policy, has been able to disentangle the different channels through which the government supports *Hallyu*. She writes:

> Since the mid-2000s, the Korean Wave policy has developed into a complex web of activities including planning, funding, investment, market research, marketing, branding, training, consulting, showcasing, events and networking engaging a vast array of governmental actors in and outside the country. The Korean Wave has become a key stream of the state cultural policy and some existing policy initiatives have become part of the Korean Wave project.[37]

Lee sees three major components of the government's support for *Hallyu*:

(1) Law. The 1999 Framework Act on the Promotion of Cultural Industries and sector-specific laws, such as the Promotion of Motion Pictures and Video Products Act and the Music Industry Promotion Act, defined promotion of these industries as the state's responsibility.

(2) Government agencies. The Korea Creative Content Agency provides comprehensive support, especially in the area of export. The Korean Film Council, an arm's-length body, is also involved, providing help at every step from film production to export.

(3) Financing. The government agencies provide direct subsidies to cultural industries. In addition to loan guarantees offered by state financial institutions, there are public-private partnership VC funds ultimately backed by the SME (small and medium-sized enterprise) Ministry's fund of funds, the Motae Fund. Currently, direct subsidies are larger than VC funding.

Lee, in her *Cultural Policy in South Korea: Making a New Patron State*, observes that the United Kingdom also supports cultural industries. But the support is much more limited and is centered almost entirely on horizontal policies, such as promoting education or trying to establish creative clusters, with very little direct funding of culture-industry firms. Lee says, "in the UK, cultural industrial policy is non-market interventionist, and is designed to correct for market failures. In Korea, the goals of industrial policy are more ambitious: to create new markets."[38]

There are contradictions, from a Western ideological perspective, in Korea's cultural-industrial policies. Following the Asian financial crisis, Korea extensively deregulated its industries. It reduced oligopolistic control by the chaebols, allowing smaller firms to emerge and thrive, including the new K-pop talent agencies. Korea has been widely lauded by Western economists for these market-friendly reforms. But these same economists fail to mention that Korea continued its state-led developmental practices, as seen in the government promotion of *Hallyu*.

Lee explains, "Policy makers see no inherent contradiction between state intervention and the market economy in the nation-wide effort for cultural industrial 'catch-up.' The market is merely a tool for achieving the ultimate policy goal of national economic survival and prosperity."

The K-pop talent agencies are flourishing on their own, without government subsidies. But as CedarBough Saeji observes, K-pop idols also appear on platforms and in media which do receive state support. Further, she points out that K-pop has been embraced by the Foreign Ministry which uses it as a tool of "cultural diplomacy." Saeji argues, "it's a fantasy to say that K-pop naturally arose without state support. People want to say that anything the government touches is inauthentic. But even Korean traditional performing arts wouldn't exist if the government hadn't stepped in to preserve them."

Though Korea has no comparative advantages in terms of pop music, and several severe disadvantages such as the use of the Hangul alphabet and global lack of Korean speakers, through industrial policy it has been able to catch up to and in some ways surpass the Western pop commercial model. BTS won Billboard's "Top Social Artist" in 2017 and 2018, and the group had three Billboard No. 1 albums in twelve months during 2018–19. Throughout Asia and in third-world countries, K-pop is the sound of today.

But whether K-pop will be the sound of tomorrow is unclear—for geopolitical reasons. China banned *Hallyu* products for two years following South Korea's 2016 decision to deploy the thaad missile defense system. There may have been commercial motives too, with China protecting its burgeoning gaming and music (C-pop) industries. Chinese fans now need to travel to Hong Kong to see K-pop idol groups. *Hallyu*, ultimately, might be a case study of the limits of soft power and what happens when it runs into the realities of hard power.

In the next few years South Korea, according to some forecasts, will surpass France in terms of per capita GDP. Though South Korea is now immensely richer than in 1961, the security threat it faced then has never really been resolved. North Korea is now a nuclear power, and China could soon become the largest economy in the world. If it were to catch up to Korean levels of individual affluence, its economy would be many times the size of America's.

Under China's national strategy of "military-civil fusion," its military capabilities are growing alongside its economic capabilities and, in some ways, encompass them. For instance, the Chinese National Intelligence Law of 2017 (revised in 2018) holds that all organizations in China—private or public, foreign-owned or domestic—and all Chinese citizens, whether in China or abroad, must comply with state national security interests: "All organizations and citizens shall, according to the law, provide support and assistance to and cooperate with the State intelligence work, and keep secret the State intelligence work that they know."[39]

Twilight of the Idols: The Millionaire Policy Returns

How might America respond? Offering a seeming echo of General Park's strategies, the most talked-about policy idea in the West at the moment concerns billionaires and multimillionaires. The policy, devised by the economists Emmanuel Saez and Gabriel Zucman, is a wealth tax on the richest Americans.[40] The hope is that this will reduce inequality and lead to "tax justice." Though Democratic politicians have differing ideas of how the proceeds could be spent (including on Green manufacturing), in its purest form the actual policy focus is on the impact of the tax itself. Maybe this would help with wealth distribution in the United States—there are debates—but the policy is otherwise strangely accepting and perhaps even optimistic about the functioning of the American economy.

In this sense, a tax on American billionaires couldn't be more different from what was tried in South Korea by General Park: U.S. billionaires are not being corralled into a national strategy for development. There are no calls to change the defective growth pattern in the U.S. economy that has led to this inequality in the first place. There are no calls to end "zero-sum entrepreneurship," financialization, monopolization, or rent-seeking activities. There are no calls for the reallocation of resources to highly productive, highly paid, or strategically important sectors such as manufacturing. There is nothing about the need for an innovation policy. There is no industrial strategy.

"Small-state," traditional free market economists, unlike progressive economists, are well aware of the risks of a predatory state. But like progressive economists, they too can't see the value of a developmental state. Economics is stuck in a rut.

Like much of the conventional wisdom offered in economic models today, K-pop lyrics are often meaningless. But one song is different: BTS's "Idol" offers genuine insight into Korean idol groups' self-perception and mocks their critics.

Given the universal power of art, or at least of hyper-commercialized, global post-music, the lyrics of "Idol" can also describe the point of view of conventional Western economists and policymakers. Despite their numerous policy failures, they retain their status. And although the developmental states of East Asia present both new challenges to U.S. dominance as well as new economic possibilities for mass prosperity, economists refuse to change their thinking about industrial policy:

> You can call me artist (artist)
> You can call me idol (idol)
> I don't care
> I don't care
> I'm proud of it (proud of it)
> No more irony (irony)
> (yeah yeah yeah yeah)
> I know what I am (I know what I am)
> I know what I want (I know what I want)
> I never gon' change (I never gon' change)[41]

[1] Robert Wade of the London School of Economics believes these advanced capabilities are built on the legacy of nearly half a century of Japanese colonial rule, which, unlike British colonial rule in Africa, developed strong institutions of production and state authority. Needless to say, this is an

extremely sensitive topic in Korea, where Wade notes that the Japanese legacy tends to be presented only in negative terms. See, for example, Jeyup S. Kwak, "South Korea Struggles with Legacy of Japanese Colonization," *Wall Street Journal*, August 12, 2015.

[2] Chung-hee Park, *The Country, The Revolution and I* (Seoul: Hollym, 1970), 156.

[3] The specifics of the law can be found in Leroy Jones and Il SaKong, *Government, Business, and Entrepreneurship in Economic Development: The Korean Case* (Cambridge: Harvard University Press, 1980): 280–82.

[4] There are conflicting accounts of the details of the punishment as well as of the deal, since neither were well documented. See Hyung-A Kim, "State Building: The Military Junta's Path to Modernity through Administrative Reforms," in *The Park Chung Hee Era: The Transformation of South Korea*, ed. Byung-Kook Kim and Ezra F. Vogel (Cambridge: Harvard University Press, 2011),
85–111; as well as Eun Mee Kim and Gil-Sung Park, "The Chaebol," in Kim and Vogel, 265–94.

[5] Park, *Country,* 120.

[6] Il SaKong, correspondence with the author, email, September 2019.

[7] Jones and SaKong, *Government, Business, and Entrepreneurship*, 280–82

[8] SaKong, correspondence, email, September 2019.

[9] The *Washington Post* was purchased by Jeff Bezos in 2013. In reaction to the 2019 National Conservatism Conference, Megan McArdle published an article in the paper attacking industrial planning. See Megan McArdle, "Conservatives Want to Revive a One-Time Trick from More Than 100 Years Ago," *Washington Post*, July 23, 2019.

[10] Lester C. Thurow, "Microchips, Not Potato Chips," *Foreign Affairs* 73, no. 4 (July–August 1994): 189–92.

[11] Hyung-A Kim, *Korea's Development under Park Chung Hee: Rapid Industrialization, 1961–79* (London: RoutledgeCurzon, 2004), 82–83.

[12] For a quantitative assessment of the HCI drive see, Nathan Lane, "Manufacturing Revolutions—Industrial Policy and Industrialization in South Korea." 2019

[13] Even if South Korea was racing forward economically, politically it returned to authoritarian rule. The new *Yushin* constitution of 1972 allowed Park to be president for life. Under his repressive *Yushin* regime unions were curtailed, if not made illegal, and there were violent clashes between student groups and the Korean Central Intelligence Agency (KCIA). In 1979 President Park was assassinated by the Director of the KCIA during a banquet at a KCIA safe-house in Seoul.

[14] Alice Amsden, *Asia's Next Giant: South Korea and Late Industrialization* (Oxford: Oxford University Press, 1992). See also Alice Amsden, *The Rise of "The Rest": Challenges to the West From Late-Industrializing Economies* (Oxford: Oxford University Press, 2001).

[15] Alexander Gerschenkron, *Economic Backwardness in Historical Perspective* (Cambridge: Harvard University Press, 1962).

[16] Amsden, *Asia's Next Giant*, 8.

[17] Amsden, *Asia's Next Giant*, 239.

[18] Jung-En Woo, *Race to the Swift: State and Finance in Korean Industrialization* (New York: Columbia University Press, 1991), 42.

[19] Chalmers Johnson, *MITI and the Japanese Miracle: The Growth of Industrial Policy, 1925–1975* (Stanford: Stanford University Press, 1982).

[20] For an excellent and comprehensive intellectual history of the debates of this era, see Stephan Haggard, *Developmental States* (Cambridge: Cambridge University Press, 2018).

[21] Nancy M. Birdsall et al., *The East Asian Miracle: Economic Growth and Public Policy; Main Report (English)*, A World Bank Policy Research Report (New York: Oxford University Press, 1993).

[22] Robert Wade, "Japan, the World Bank, and the Art of Paradigm Maintenance: The East Asian Miracle in Political Perspective," *New Left Review* 217 (May/June 1996): 3–37.

[23] Lewis T. Preston, foreword to Birdsall et al., *East Asian Miracle*, vi.

[24] Chad Syverson, "Challenges to Mismeasurement Explanations for the U.S. Productivity Slowdown" (NBER Working Paper No. 21974, February 2016).

[25] Amsden, writing in 2001, found China's growth strategy reminiscent of Japan in the 1950s and 1960s. See Amdsen, *Rise of "The Rest,"* 178–79.

[26] Ralph E. Gomory and William J. Baumol, *Global Trade and Conflicting National Interests* (Cambridge: MIT Press, 2001).

[27] Reda Cherif and Fuad Hasanov, "The Return of the Policy That Shall Not Be Named: Principles of Industrial Policy" (IMF Working Paper No. 19/74, March 26, 2019).

[28] Haggard, *Developmental States*, 72–73.

[29] William B. Bonvillian and Charles Weiss, *Technological Innovation in Legacy Sectors* (Oxford: Oxford University Press, 2015).

[30] Aaron Klein, "Decline in US Shipbuilding Industry: A Cautionary Tale of Foreign Subsidies Destroying US Jobs," Eno Center for Transportation, September 1, 2015. Shipbuilding also serves as a good example of why firm-to-firm misallocation research, the main thrust of academic and OECD research into the productivity slowdown, is useless here, given that the United States has been bumped from the sector altogether. For an example of this mainstream approach, see Dan Andrews, Chiara Criscuolo, and Peter N. Gal, "The Best versus the Rest: The Global Productivity Slowdown,

Divergence across Firms, and the Role of Public Policy" (OECD Productivity Working Papers No. 5, December 2, 2016).

[32] Those who recall the Blum-Byrnes agreements also know that this sort of competition is not entirely new, nor is it without precedent in U.S. history.

[33] For an extensive history of Korean art cinema and the role of the state, see Euny Hong, *The Birth of Korean Cool* (New York: Picador, 2014), specifically Chapter 11, "K-Cinema, the Journey from Crap to Cannes."

[34] Emily Blake, "The Strength of K-Pop Fandom, by the Numbers," *Forbes*, April 4, 2018.

[35] This number is reported in Ingyu Oh and Hyo-Jung Lee, "K-pop in Korea: How the Pop Music Industry is Changing a Post-Developmental Society," *Cross-Currents: East Asian History and Culture Review* E-Journal 9, (December 2013).

[36] Both speeches are quoted in Tae Young Kim and Dal Yong Jin, "Cultural Policy in the Korean Wave: An Analysis of Cultural Diplomacy Embedded in Presidential Speeches," *International Journal of Communication* 10 (2016): 5514–34.

[37] Hye-Kyung Lee, "From National Culture to Transnational Consumerism," in *The Korean Wave: Korean Media Go Global*, ed. Youna Kim (Abingdon: Routledge, 2013), 191.

[38] Hye-Kyung Lee, *Cultural Policy in South Korea: Making a New Patron State* (London: Routledge, 2019) and correspondence with author.

[39] For an (unofficial) English translation of the law, see "National Intelligence Law of the PRC (2017)," China Law Translate, June 27, 2017. For a legal primer on the law, see Mannheimer Swartling, *Applicability of Chinese National Intelligence Law to Chinese and Non-Chinese Entities* (Stockholm: Mannheimer Swartling, 2019).

[40] Emmanuel Saez and Gabriel Zucman, *The Triumph of Injustice: How the Rich Dodge Taxes and How to Make Them Pay* (New York: W. W. Norton, 2019).

[41] BTS, "Idol," by Bang Si-hyuk et al., track 15 on *Love Yourself: Answer*, Big Hit, 2018. There are typically English translations for every idol pop song within about twenty-four hours of release.

misinformation, Outline empowers readers to verify the facts.

Misunderstanding Investment in the United States and China

R. STEPHEN BRENT APRIL 23, 2012

America and China have very different views of the role of investment in creating economic growth. In America, we believe in shareholder value. Companies should invest in activities that have high rates of return, which will maximize productivity and growth. The job of government is to get out of the way. China believes the opposite. It values national market shares over rates of return. Far from getting out of the way, the government intervenes to provide cheap capital to fund high investment.

Market fundamentalists tell us that the U.S. system is superior and that China's methods are bound to backfire. But force-fed investment has worked well for China. Since 2001, its GDP has grown by 250 percent compared to America's 35 percent.[1] China has also risen from number four to number one in the world (by a large margin) in manufacturing.

Have market fundamentalists misunderstood the drivers of investment and growth? That much is suggested in the new book *Trade Wars Are Class Wars* by business journalist Mathew Klein and finance expert Michael Pettis. Klein and Pettis argue that investment is not limited by the amount of capital available but by national consumption and demand.[2] Supplementing their arguments with earlier work by the recently deceased Harvard Business School professor Clayton Christensen—who argued that financial metrics have caused American corporations to focus too much on cutting wages and offshoring and too little on investment and productivity[3]—makes clear that the sources of investment and growth have been largely misunderstood by many economists and policymakers.

It's the Demand, Stupid

Klein and Pettis's primary concerns are trade surpluses and deficits, and how international trade balances are shaped by income inequality within nations. But for our purposes, the authors' most important argument is that investment is not constrained by the amount of capital available but by "insufficient consumption."[4] Their clearest illustration of this phenomenon is the Hartz reforms in Germany in the early 2000s, which reduced wages and boosted the incomes of owners of capital in an attempt to make Germany more competitive internationally. The expectation was that the resulting higher savings would fuel higher investment and growth, but instead investment fell. Klein and Pettis say this happened because Germany's investment was constrained by domestic demand, which wage cuts reduced.

The authors argue that this demand constraint holds generally in advanced economies today. Investment used to be capital constrained, but starting in the late 1970s, global capital supplies grew rapidly and the world became flooded with cheap capital.

Klein and Pettis make two related arguments about the United States. The first is that America's stagnant wages have limited demand and investment. The authors quote Marriner Eccles's (FDR's Federal Reserve chairman) diagnosis of America's economy before the Great Depression: "By taking purchasing power out of the hands of mass consumers, the savers denied to themselves the kind of effective demand for their products that would justify a reinvestment of their capital accumulations in new plants."[5]

Second, Klein and Pettis argue that the high savings of the wealthy are much less conducive to investment and growth than commonly thought. If investment is limited by the amount of demand in the economy, then any increase in savings that results from giving more income to the wealthy is unlikely to go into investments in the real economy. Instead, it mostly goes toward bidding up financial asset prices or increasing consumer debt. As Pettis put it in an earlier blog post, "Today, because it is weak demand, not high costs of capital, that restrains business investment, income inequality does not lead to higher investment. On the contrary, it leads to slower growth, more debt, and perhaps even less investment."[6]

The Perils of RONA

Clay Christensen agrees that the world is awash in capital, but his analysis goes down a different path. He is concerned with how companies invest. Christensen criticizes the "seminarians of new finance" who insist that investment decisions must be based on financial metrics like internal rates of return (IRR) and return on net assets (RONA). He links these ills to the excesses of the shareholder value movement, which holds that companies should be run primarily, if not exclusively, to maximize shareholder returns. As Christensen points out, 95 percent of stock market transactions are driven by hedge funds and other institutional managers who hold stocks for less than a year.[7] These funds are not owners but renters; they are not investors but speculators. When they force CEOs to focus on maximizing quarterly returns, long-term value creation suffers.

Christensen identifies a contradiction at the core of modern finance: In economic terms, the world is awash in capital and interest rates are historically low, which should lead to the higher use of a resource that has become cheaper. But shareholder value metrics treat capital as *the most scarce resource* whose use can only be justified by investments with very high rates of return. This has led American companies to impose high hurdle rates on new investments—often 15 percent or more, which means that investments have to pay for themselves in five years. This discourages investment in general and disruptive innovation in particular.

Renowned as a theorist of business innovation, Chistensen distinguishes between "efficiency" or "sustaining" innovations (incremental improvements that lower costs but do not create new markets or jobs) and "disruptive" innovations (which create new products or services that generate new customers and create jobs). Disruptive innovations are particularly important because they drive the positive side of Schumpeterian creative destruction. But they are hard to achieve. Efficiency innovations are much easier to accomplish, but do not drive strong job creation or growth. Sustaining innovations can often pass hurdle rate tests because they pay back quickly, but disruptive innovations often cannot because the time horizons required are too long.

Metrics like RONA are even more perverse. Because they are ratios of earnings to assets, CEOs can improve the ratios either by investing more in order to increase returns (but that puts more assets on the balance sheet) or by cutting jobs, lowering wages, reducing capital equipment, or offshoring (which aim to increase profits without increasing assets or to reduce assets without reducing profits). Companies typically find it easier to maximize RONA by downsizing, cutting wages, or offshoring than by investing for the future.

Offshoring has had high costs for U.S. manufacturing and jobs. Christensen tells the story of Dell's interactions with AsusTek in Taiwan. Dell starting by offshoring simple circuit boards to AsusTek, but then moved on to assembly, other components of the supply chain, and finally product design. At each stage, Dell increased its profits and reduced its assets, but the eventual outcome was that Dell had the brand and AsusTek had the jobs.[8]

Thus RONA and corporate short-termism produce what Christensen called the capitalist's dilemma:

> Doing the right thing for long-term prosperity is the wrong thing for most investors, according to the tools used to guide investments. In our attempts to maximize returns to capital, we reduce returns to capital. Capitalists seem uninterested in capitalism—in supporting the development of market-creating innovations.[9]

Challenges to Market Fundamentalism

Taken together, the Klein-Pettis and Christensen arguments are mutually reinforcing and help explain many of the adverse trends that have characterized the U.S. economy in recent decades. First, they help explain the U.S. manufacturing slowdown. Klein and Pettis outline the macro issues arising from Chinese policy and offshoring, while Christensen explains corporate unwillingness to make large capital investments and the metric-driven desire to reduce physical assets.

Second, both help explain why U.S. wages have grown slowly and declined for workers with less education. Offshoring has broken the partnership between American capital and labor; RONA has pushed U.S. companies to pursue offshoring with a vengeance; and high hurdle rates have limited disruptive innovations that create high-paying jobs.

Third, they help explain low U.S. investment. If the bottom 50 percent of the population, which spends most of what it earns, has stagnant incomes, and the top 10 percent (and especially the top 1 and 0.1 percent) gets a lot of income but spends less, national demand and, therefore, investment are held back. Keynes and Eccles would agree. With their high hurdle rates, U.S. companies limit investment even more.

Fourth, they help explain slowing productivity gains. If investment is low, productivity advances will be limited. If companies are reluctant to invest in disruptive innovations, the United States will not experience big productivity jumps.

When market fundamentalists began their takeover of U.S. policies and corporate practices in the 1980s, they promised that financial deregulation, tax cuts for the wealthy, and the shareholder value movement would produce increased investment, faster productivity gains, and rising wages. Although none of these things has happened, the paradigm has proven remarkably durable. The main reason has been that powerful elites have benefited from it. But the paradigm also relies upon an economic narrative that many have found persuasive: The source of growth is private enterprise and finance. If the government just gets out of the way, the private sector will create prosperity and jobs. A strong financial sector provides the capital that companies need to invest and grow. Shareholder pressures ensure that companies use capital wisely. Inequality is a price we have to pay for strong private investment and growth.

Critics have attacked market fundamentalism on moral and political grounds but have not deconstructed this economic narrative. This is why the arguments of Klein and Pettis as well as Christensen are so important.

Klein and Pettis pose the most basic challenge: If market fundamentalist policies produce stagnant wages and a skewing of income to the top, low demand will limit investment and growth, and the higher savings of the wealthy will not help. The market fundamentalist paradigm gets inequality wrong. Far from being a spur to growth, high inequality is an obstacle to it.

Christensen illustrates the reasons for this failure at the level of individual firms: The shareholder value movement has backfired. It has led to high hurdle rates that force individual investments to look profitable, but that systemically reduce total investment and disruptive innovations.

These are major indictments, but they don't exhaust the case against market fundamentalism. Two other shortcomings can be briefly noted. First, finance does not support real investment the way its advocates claim. On the contrary, the financial sector's high profits have coincided with low investment in the real economy. One reason has been that high financial profits raise the opportunity costs of real investments—if a company can generate high returns from financial engineering, why should it accept lower returns from real engineering? It is also not true that most U.S. companies rely on the financial sector for capital. Most companies finance investment out of retained earnings, but many, at the behest of financial market activists and advisers, have been returning increasing amounts of capital to shareholders via stock buybacks.

Second, it is not just private investment that has been hurt by market fundamentalism, but public investment as well. When taxes are cut and entitlements spiral upward, the casualty is public investment in R&D, infrastructure, and education. Globalization and the rise of China would have hurt U.S. manufacturing and put downward pressures on American wages no matter what U.S. policies were in place, but market fundamentalist practices have made these problems worse.

China's High Investment

Let us now turn to China. Klein and Pettis provide a sophisticated assessment of China's growth methods, invoking the economic theories of Alexander Gershenkron and the growth strategies pioneered by Japan and the Asian Tigers. Gershenkron argued that poor countries do not have enough savings to fund investment or the business skills needed to build modern productive capacity. To break out of this dilemma, the state should boost saving by holding consumption down and lead investment in infrastructure and manufacturing.[10] Meiji Japan and the Asian Tigers followed this model, but added their own emphases on export promotion.

China has followed in the footsteps of its East Asian predecessors (especially Taiwan), but with two differences. First, it has relied much more heavily on state direction. According to Klein and Pettis, the Chinese government sets the level of investment. The government decides how fast it wants the economy to grow in a given year, calculates how much investment is needed to meet that target, and directs the state-owned banks to push out the needed amount of capital.

Second, China has put the East Asian model of high saving and investment on steroids. Whereas most East Asian nations peaked at 30–35 percent of GDP in savings and around 30 percent in investment, China has saved an incredible 45–50 percent of GDP and invested 40–45 percent. No major nation has ever invested this much.

The Klein-Pettis analysis of China has some limitations, however. The most significant is that the authors' focus on the costs of suppressed consumption lead them to overstate the costs of high investment: "Funding investment at the expense of consumption is therefore self-defeating if the result is excess capacity and impoverished workers—precisely the situation in China since the early 2000s."[11]

This is an incomplete picture. China's high-investment methods can actually be viewed as an answer to the dilemma of low wages and low demand that Klein and Pettis highlight. As the authors point out, China has severely suppressed wages from the beginning and today has the lowest share of GDP in consumption of any major nation. By the authors' theory, this could have held down domestic demand and investment (as happened in Germany).

But that did not happen. The main reason is that China does not let market forces set its level of investment. As noted above, the government sets that level artificially high to force-feed industrial expansion and growth. It also makes capital artificially cheap. It does this by paying savers negative real interest rates (lower than inflation) and passing the low rates on to companies. As Pettis has said:

> China's growth is actually heavily capital intensive. . . . Large Chinese businesses behave . . . not as if labor is the cheapest input they have but rather as if capital were the cheapest input. They are right. Labor may be cheap, but capital is almost free.[12]

According to Western economic theories, such manipulation of investment is not supposed to work. Overinvesting and underpricing capital should lead to malinvestment, bad debts, and falling productivity. China has had these problems to a degree (especially since 2010), but in strategic terms, high investment has been a major driver of China's rapid growth.

Skill and Luck

China's investment methods should also be viewed within the context of its broader growth strategy. That strategy is based on China becoming and remaining the most cost-effective producer of manufactured goods (starting low and moving upmarket) and on the acceptance of low profits and even losses in order to expand market shares.

This strategy involves "two blades of the scissors." The first blade is low costs. China has kept costs low by holding wages down, accepting low or negative profits, enduring severe environmental damage, and so on. Combined with its natural cost advantages, this blade has allowed China to underprice everyone else.

The second blade is strong manufacturing capabilities. China has strengthened its capabilities by subsidizing company investments and by making massive public investments in infrastructure. Most Chinese companies don't use hurdle rates. They respond to the incentives offered by local governments, whose officials are judged by their success in expanding factories and jobs. If the companies are in sectors that the Communist Party considers critical, they will receive massive subsidies.

This is the Gershenkron strategy on steroids. The government leads investment and provides large subsidies for manufacturing because manufacturing allows steady productivity gains and benefits from expansions of scale and scope (scale through the sheer magnitude of the manufacturing surge and scope through the development of extensive industrial clusters).

When you put extremely low costs together with extremely high investment, you get a world-beating "China price" that allows China to dominate global manufacturing. China has also benefited from unusually favorable conditions, especially from 2001 to 2008. The one-child policy gave it good dependency ratios; the massive shift of workers from farms to factories drove rapid gains in productivity; and Western companies boosted China's technology and high-end exports. Some of those conditions have moderated since 2009, but China has continued to make rapid gains in manufacturing and GDP.

The China Model's Hidden Costs

The public myth (promoted by China) is that China's rapid growth has been a boon to the world—it has reduced global poverty, helped other emerging market nations advance, and provided cheap goods to Western consumers. Some of this is true, but some of it is misleading. Most of China's contributions to poverty reduction have been within its own borders. Many other emerging market nations have grown faster and reduced poverty, but most have done so by exporting raw materials and commodities, which has left them vulnerable to the vicissitudes of commodity-led growth.

The impacts on Western nations (especially the United States) have been more adverse. Yes, cheap goods have helped consumers, but China's undervalued currency, industrial subsidies, and wage suppression have hit Western workers hard. The problems of China's high trade surpluses and excessive subsidies are well known, but the negative impacts of China's wage suppression have not been well understood.

Klein and Pettis explain how this works. When China keeps its wages artificially low, its hypercompetitive exports force other nations to adjust. In Germany, the government lowered wages to try to remain competitive. In other cases, the mechanisms were different but the impacts similar. The result has been a self-reinforcing cycle of cost-cutting, which has hurt global demand and growth:

> The perverse result is that deepening globalization and rising inequality have reinforced each other. Businesses across the world use international competition as an excuse to push for lower wages. . . . Squeezing ordinary

> households has, apparently, been much easier than increasing productivity. . . . This is unsustainable, however, because depressing wages must lead to some combination of lower consumption, which reduces total spending in the global economy, and higher indebtedness, which is ultimately self-limiting and self-defeating.[13]

The United States has been hit particularly hard due to our market fundamentalist policies. Here, workers are more exposed to global forces than in other nations, and U.S. companies have made wage pressures worse by their obeisance to RONA.

America's Potential

The last twenty years have been a golden age for China and two lost decades for the United States. China has enjoyed a virtuous circle of rising investment, fast-growing manufacturing, and rapid growth. Even though consumption is a low share of GDP, incomes have risen rapidly.

America, by contrast, has suffered from a vicious circle of low investment, slow productivity gains, manufacturing job losses, and slow growth. And because most of the gains from relatively low U.S. growth have gone to the top, wages have stagnated.

The past is not necessarily prologue, however. Longer-term growth trends could be more favorable to the United States. China's overinvestment means that it has little untapped upside potential. In addition, it faces serious downside forces, especially severe aging and high corporate debt. China's growth will slow; the question is how much.

America, on the other hand, has major upside potential because we have been leaving so many growth opportunities on the table. When you have been pursuing policies that make inequality and investment worse, you can make big gains by changing those policies. A central message of both Klein-Pettis and Christensen is that better equality and higher investment are complements. New policies that prioritize public and private investment and raise wages through productivity improvements would be win-win.

Unfortunately, such changes will be strongly opposed by American corporate and financial elites. It is not just trade policy that is subject to class wars, but all economic policy.

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Notes

The views expressed in this paper are those of the author and are not an official policy or position of the National Defense University, the Department of Defense, or the U.S. government.

[1] GDP in constant prices calculated from Federal Reserve Bank of St. Louis data. Last data are for 2017.

[2] Mathew C. Klein and Michael Pettis, *Trade Wars Are Class Wars: How Rising Inequality Distorts the Global Economy and Threatens International Peace* (New Haven: Yale University Press, 2020).

[3] Clayton M. Christensen and Derek C. M. van Bever, "The Capitalist's Dilemma," *Harvard Business Review* (June 2014): 60–68. See also: Clayton Christensen, "Disruptive Innovation" (lecture, Said Business School, University of Oxford, June 9, 2013), YouTube, June 19, 2013.

[4] Klein and Pettis, 76.

[5] Klein and Pettis, 81.

[6] Michael Pettis, "Wealth Should Trickle Up, Not Down," Carnegie Endowment for International Peace, June 19, 2019.

[8] Christensen, "Disruptive Innovation."

[9] Christensen and van Bever, 66.

[10] Klein and Pettis, 106–7.

[11] Klein and Pettis, 102.

[12] Michael Pettis, "China's Troubled Transition to a More Balanced Growth Model," New America, March 1, 2011.

[13] Klein and Pettis, 224–25.

China and the Rule of Law

ERIC LI OCTOBER 23, 2014

If any political concept could be said to have universal appeal, it would have to be the rule of law. Virtually no government rejects the idea of the rule of law. On the contrary, most, if not all, governments claim to seek its realization. In 1992, the World Bank officially deemed the rule of law a prerequisite of successful economic development, linking it to "efficient use of resources and productive investment."[1]

The modern West has staked out the claim of being the original birthplace and the eternal guardian of the rule of law. But China has also embraced this principle. The PRC's 1982 Constitution stated, "no organization or individual may enjoy the privilege of being above the Constitution and the law."[2] In 1997, the party declared at its Fifteenth Party Congress that China's "basic strategy" was "governing the country according to law and making it a socialist country of rule of law."[3] And General Secretary Xi Jinping has made the rule of law a centerpiece of his "new era."[4]

But what is the rule of law? Can a country like China realize the rule of law? Is America the leading model of the rule of law, as many believe? If we dig deeper, we find that the concept of the rule of law is greatly misconstrued and misinterpreted in the general media and in our political discourse. A more in-depth survey of the history, theories, and practices of the rule of law would demonstrate that it is not an exclusive possession of liberal societies.

In fact, conceptual confusion and practical corruption have placed the "rule of law" in a precarious position in the West. As a result, nonliberal societies, especially China, may now hold more promise in realizing the benefits of the rule of law.

Is the Rule of Law Limited to Liberal Societies?

What is the rule of law? If one poses the above question to educated elites around the world, the likely answer would be close to the following: A country with the rule of law is governed by a constitution that guarantees individual rights and sets out the rules for democratic elections. Its political institutions are defined by a separation of powers, including an independent judiciary that adjudicates disputes impartially, without political interference, and with the power to review legislation to ensure its compliance with the constitution. Finally, all individuals must be equal before the law.[5]

This definition could be further elaborated by the obvious merits of the rule of law. When rules are set in advance and applied equally to all by an independent judiciary, rights and properties cannot be taken away arbitrarily. Businesses can operate, and individuals can organize their lives with security and predictability. Such conditions seem necessary for economic development and even basic human dignity.

In this narrative, liberal societies are essentially rule-of-law countries, and nonliberal societies are not. Liberal democracies are said to possess all of the above ingredients in varying degrees; China and other nonliberal countries, it is claimed, do not.

In China, it is said, the party holds arbitrary power over the law and even the Constitution because its one-party rule is supreme. The judiciary is not independent and, therefore, cannot be impartial. Under the party's political supervision, the judiciary cannot apply the law equally to all without political interference, let alone serve as a check on the party's political authority. Under such a system, any individual rights stipulated in the Constitution are meaningless. Businesses and individuals cannot operate with predictability, nor even basic security of property and liberty.

By about every abstract criterion, China seems to exemplify the opposite of the spirit of the rule of law, and to represent a standard case of the rule of man (albeit in the form of the rule of the party). As such, some have labeled China's efforts to develop the rule of law as rule *by* law. Rule by law, in their interpretation, is simply using laws as a means to efficiently exercise the rule of the party and is, therefore, contrary to the ideal of the rule of law.

But this is a narrative built on shoddy grounds, having little basis in fact or even in theory.

The Rule of Law in the United States

Let's first examine the liberal societies of the world, which proclaim themselves to be the exemplary practitioners of the rule of law and the worldwide guardians of this principle. In particular, no country is said to represent that group better than the United States.

Yet, as soon as we get beyond the slogans, some puzzling facts emerge about the state of the rule of law in America. Why, for example, are there so many lawsuits in the United States? If general rules are set in advance and applied with consistency and predictability, one might expect less litigation, not more. In a lawsuit between two adversaries, it is likely that one party will lose. Few would enter into a lawsuit knowing for sure they will lose. Yet the United States is by all measures the most litigious society in the world. If the rule of law delivers predictability, why do so many people think they can win but end up losing? Or, perhaps more accurately, why are so many parties using the law as a means to exert economic pressure?

Why, moreover, have so many consequential judgments been determined by 5–4 votes on the U.S. Supreme Court? One swing vote, which could be the result of one justice's health, age, or personal experience, is hardly a demonstration of predictability. As it stands, a justice's idiosyncratic situation could result in a decision that affects fundamental aspects of American life for decades or longer. Some, for example, traced the Supreme Court decision that made same-sex marriage constitutional (which was a 5–4 decision opposed by Chief Justice John Roberts) at least in part to the personal acquaintances and life experience of one justice, Anthony Kennedy.[6] Overnight, same-sex marriage became constitutionally sanctioned, yet not a word changed in the U.S. Constitution. Likewise, a determination no less important than who should occupy the highest office of the land in the United States, in the contested presidential election of 2000, was also decided by a 5–4 vote in the Supreme Court.[7]

The recent confirmation of Brett Kavanaugh to the U.S. Supreme Court offers another case in point. The political struggle was intense and overtly partisan. The Republicans called him one of the most qualified candidates ever. The Democrats portrayed him as a dangerous addition to the court. Democratic senator Cory Booker went so far as to call Kavanaugh supporters "complicit in evil."[8] In fact, the Kavanaugh confirmation was the culmination of a well-organized and well-funded political campaign that lasted over thirty years. This campaign targeted not only the Supreme Court, but also the entire federal court system.[9]

One cannot help but wonder: if the essential elements of the rule of law are impartiality and predictability, why is so much partisan effort being put into ensuring that individuals of particular political persuasions become judges?

Misconceptions about the Rule of Law

It turns out that the theories of the rule of law have never been as neat as portrayed by their advocates in politics and the media. Here I summarize four areas of misconceptions on the rule of law in general and the implications of these errors for the Chinese political context in particular.

(1) The rule of law is liberal. It is a historic fact that the rule of law predated liberalism by more than a millennium. When Aristotle first conceptualized the rule of law, it was perfectly consistent with Athenian slave society. Equality simply meant that the law was applied equally to all according to its own terms. So the rule of law as theorized by Aristotle, who many consider to be the intellectual founding father of the rule of law, at least in the Western tradition, did not preclude, and even supported, the categorization of individuals (men, women, slaves, and noncitizens) with different legal implications.[10] Judith Shklar went so far as to argue that Aristotelian rule of law is perfectly compatible with the modern "dual state," in which part of the population is declared subhuman (such as the United States until the Civil War, and in some ways long after that, as well as Nazi

Germany and apartheid South Africa in more recent times).[11] John Locke's proclamation, "*Where-ever Law ends, Tyranny begins*,"[12] seems weak in this analysis, particularly in the moral context of liberalism. Many contemporary legal theorists would concur. Joseph Raz wrote that "the law may . . . institute slavery without violating the rule of law," as in fact Locke's *Constitutions of Carolina* did. Raz went on further to state that the rule of law is morally neutral: "A good knife is, among other things, a sharp knife. Similarly, conformity to the rule of law is an inherent value of laws, indeed it is their most important inherent value. . . . Like other instruments, the law has a specific virtue which is morally neutral in being neutral as to the end to which the instrument is put."[13]

Likewise, the popular story that the Magna Carta inaugurated a liberal society based on the rule of law in England is but a myth. As Edward Jenks pointed out, it was a contract between the feudal nobility and the king, who signed it under duress. If anything, it further consolidated feudal privileges instead of advancing modern liberties.[14]

Even a paradigmatic liberal theorist like John Rawls recognized that nonliberal societies, those that "do not have the right of free speech," could be legitimate as long as "the system of law is sincerely and not unreasonably believed to be guided by a common good conception and obligations to all members of society."[15] Brian Tamanaha, a law professor at Washington University in St. Louis, called the view that only liberal democracies can have rule of law "unjustifiable," arguing that it "smacks of stuffing the meaning of the rule of law with contestable normative presuppositions to produce a desired or presupposed outcome which is then imposed on everyone by definitional fiat."[16]

(2) The rule of law necessarily prevents unlimited governmental power. One of the most common criticisms of China and other nonliberal countries is that the lack of rule of law breeds societies in which the ruler, in China's case the party, can exercise sovereign power without constraints. Under such systems, civil rights and human rights do not have the protections of the law and can be trampled upon at will.

But this view is based on flawed political theory. The rule of law has never—not even at the conceptual level—resolved the issue of how to check sovereign power. Whatever the sovereign is—king, party, parliament, or court—can change the laws. "He that is bound to himself only, is not bound," as Hobbes put it.[17]

Carl Schmitt further elaborated this view in the twentieth century. In his *Political Theology*, Schmitt observed that a society's political decision-making is more fundamental than the law. The establishment of the constitution itself requires decision-making that is not further backed up by law. Indeed, even ordinary legislation requires decision-making. Laws are by definition general, and the gap between legal generalities and particular applications must be bridged by judicial decision-making that is central to justice itself.[18] A society's fundamental decisions are essentially within the realm of sovereignty, not law.[19]

Even in the long evolution of the liberal tradition in England, the role of the common law was shaped by fundamentally contradictory developments in societal decision-making. Coke represented an era in which the common law, including the Magna Carta, was seen as providing the basic legal framework and principles that were above the powers of legislators.[20] This was then disputed by Jeremy Bentham and repudiated by legal reforms that regarded parliamentary sovereignty as supreme, while judicial review of legislation was rejected.[21] Even a scholar like Max Radin, who believed in the Magna Carta's enduring contribution to the development of liberal society, conceded that the British Parliament, as the sovereign, in theory could abolish the Magna Carta simply by an act of parliament.[22]

The U.S. Constitution also carries specific provisions on how everything in it can be changed by the proclaimed will of the people as long as certain procedures are followed. There are others who believe that the principles stated in the Declaration of Independence reign supreme and are even above the Constitution.[23] The debate seems endless.

Recognizing this theoretical predicament, Tamanaha identifies three ways in which the rule of law *can* limit sovereign power in practice: First, political necessity leads the rulers to voluntarily or involuntarily pledge to be bound by the laws. Second, customs that developed over long periods of time create a cultural environment in which there is a broadly shared assumption and social practice of being bound by laws, such as under Germanic customary law during the Middle Ages. Third, governments can require officials to strictly follow the rules when conducting routine and mundane tasks.[24] All three, however, are products of cultural and political developments. A. V. Dicey even proclaimed that the rule of law was a unique product of Anglo-Saxon culture.[25]

At the Fourth Plenary Session of the Eighteenth Party Congress in October 2014, Xi Jinping made the development of the rule of law a centerpiece of his political agenda. He said the following about the Chinese Constitution: "the party leads the people in establishing the Constitution, the party leads the people in executing the Constitution, and the party must be bound by the Constitution."[26] Many have dismissed such pronouncements as contrary to the idea of the rule of law, pointing out the conceptual contradiction of the party both being the lawgiver and claiming to be bound by the law. But such contradiction has always been inherent to the theory of the rule of law. The Chinese party state is no exception. Party-led rule of law is not an oxymoron, as many have claimed, unless the entire concept of the rule of law is an oxymoron.

The question should not be whether there is some innate flaw in China's political system that excludes the rule of law. The question should be whether and how China can develop the appropriate political and cultural conditions that can deliver the benefits of the rule of law.

(3) The rule of law overcomes the follies of the rule of man. Among all the misconceptions about the rule of law, the dichotomy of the rule of law versus the rule of man is perhaps the most misleading. As the popular saying goes, the rule of law is impartial and just while the rule of man is arbitrary and unjust. But again, Aristotle reveals that this concept produces more ambiguity than clarity.

Aristotle places reason at the center of the rule of law—"the law is reason unaffected by desire."[27] In this telling, because man is necessarily influenced by human passions and biases, the rule of man would make for an unstable or even unjust society. Thus it would be preferable for a society to be governed by general rules set in advance and strictly applied.[28] On the other hand, Aristotle also emphasizes that the outcome of the rule of law depends on the quality of judges and, in complex cases, it would be better for laws to be less rigid so that judges could have more discretion.[29] This Aristotelian conflict has never been resolved throughout the intellectual and practical history of the rule of law. Montesquieu argued against expanding the role of judges for fear that "the life and liberty of the subject[s would be] exposed to arbitrary control."[30] Yet, Montesquieu, more than any other political thinker, was responsible for laying the intellectual foundations for the independence of the judiciary, which necessarily assigns tremendous power to judges. Later on, the likes of Jeremy Bentham and Justice Antonin Scalia railed against such institutional features, arguing that they led to bad laws being made by judges.[31] None of these thinkers could get away from the harsh reality that the law does not act or speak by or for itself; all laws must be interpreted and acted upon by human beings.

In fact, the rule of judges is now the normal condition of the rule of law in most Western countries, especially in the United States. And judges are men (or women). This conceptual contradiction explains why the process of appointing judges has turned into such an intense political battleground. It turns out that different judges can have radically different interpretations of the law, leading to radically different outcomes—so much so that many have begun to condemn the increasingly powerful roles judges play in directing political and legal outcomes in the United States. David Kaplan, in his recent book, called the U.S. Supreme Court "the most dangerous branch" of government, one that is mounting an "assault on the Constitution."[32] When an independent judiciary in a nation that is perceived as the paragon of the rule of law can be viewed as an enemy of the Constitution, the line between the rule of law and the rule of man is surely blurred.

But do such conspicuous manifestations of the rule of man subvert the rule of law? Not necessarily. In fact, a strong case can be made that a strict view of formal legality, as termed by Tamanaha,[33] which stipulates the rigid application of the letters of the law without human discretion, is contrary to the ideals of the rule of law.[34] The rule of law should not be morally and substantively neutral. Procedural justice is not substantive justice and could very much produce the opposite. It takes the interpretive intervention of human beings to ensure that the content and execution of the law actually generate just outcomes. And such interpretive interventions are by necessity contextual and, yes, political.

Unsurprisingly, modern China has been going through the same struggle in its effort to implement the rule of law. After the Cultural Revolution, the party state sought to institutionally rectify the system that allowed Mao's absolute personal rule, which was an extreme case of the rule of man, by building more impersonal versions of the rule of law. Chinese public opinion also supported such a shift.

The following comments of Xiao Yang, the chief justice of the Supreme People's Court of China, from a public speech in 2003, best captured the mood of that era:

> Today's world is one of the rule of law. The prosperity of a nation, the integrity of its politics, the stability of its society, the development of its

> economy, the solidarity of its ethnic groups, the flowering of its culture and the contentment and well-being of its people, all hinge upon the maintenance of law and order and the soundness of the legal system. China is no exception. The national strategy of a country determines its future and destiny. At the end of the twentieth century, China . . . publicly proclaimed to the world that we would adopt the rule of law as our governance strategy.[35]

In this context, the rule of law was put in stark contrast to the rule of man. Some jurisdictions went so far as to implement automatic computer sentencing, so as to take personal discretion completely out of certain legal decisions.[36] Whether such methods are consistent with the fundamental intent and conception of the rule of law is very much debatable. Perhaps as a result, computer sentencing, which flourished in certain provincial courts in the early 2000s, was not adopted on a large scale. Although such software is still being used in Chinese courts, it is primarily for aiding investigative work such as evidence analysis rather than making binding legal decisions.[37]

(4) The rule of law underwrites social justice in modern democratic societies. In recent decades, the rule of law has been invoked as the ideological and institutional framework to deliver social justice in liberal democratic societies. Civil rights and welfare politics have both been presented as societal goals based upon the ideals of the rule of law. But this view ignores intrinsic contradictions within the theoretical foundations of the rule of law.

As summarized above, the historic roots of the rule of law, from Aristotle through the medieval period, hardly represented any form of universal social justice, as slavery and feudal privileges were both institutionally enshrined in the concept of the rule of law. Even in the liberal tradition of the modern era, the rule of law was not about social justice, as we understand it today. John Locke, one of the most significant thinkers of the liberal rule of law, placed private property at the center of it. For Locke, a "state is a society of property owners,"[38] and the raison d'être of the rule of law was the "protection of the propertied members of society against the demands of the indigent."[39]

Adam Smith put it most succinctly:

> Laws and government may be considered in this and indeed in every case as a combination of the rich to oppress the poor, and to preserve to themselves the inequality of the goods which would otherwise be soon destroyed by the attacks of the poor, who if not hindered by the government would soon reduce others to an equality with themselves by open violence.[40]

Even centuries later, when social welfare became central to the political agenda of Western liberal societies as a means to remedy the excesses of capitalism, political and legal thinkers continued to view such positions as inimical to the rule of law. Prominent among them were A. V. Dicey[41] and Friedrich Hayek. For Hayek, the welfare state's pursuit of substantive equality through wealth redistribution was against the fundamental tenets of the rule of law.[42] If we pay attention to today's politics in America, echoes of this debate still divide the nation.

In China, this debate is perhaps just beginning. Forty years of expanding marketization and rapid growth has produced serious side effects that are exposing fundamental social contradictions. The two most notable ones are the expanding divide between rich and poor and environmental degradation. Since 2000, China's Gini coefficient has surged through 0.4, signaling potentially destabilizing levels of inequality. In 2017, rural residents, who account for 42 percent of the country's population, had an annual per capita disposable income of ¥12,363. That was only about one-third of the average per capita disposable income of urban residents, which stood at ¥33,616.[43]

At the Nineteenth Party Congress held in 2017, General Secretary Xi Jinping stated that China's development paradigm had shifted from rapid growth to high-quality development.[44] The principal challenge for Chinese society has changed from backward economic production to unbalanced and inadequate development. Redistribution of economic gains is, therefore, now the central political task.

But, in 2004, the protection of private property was officially enshrined in the PRC Constitution.[45] Some liberal opinion leaders, such as Zhang Weiying, Wu Jinglian, and Mao Yushi have used the concept of liberty and the law's protection of private property (in other words, procedural justice) to oppose active government policies to achieve substantive equality through taxation and other political means,[46] just as Hayek did in the West decades ago. It is important to note that these opinion leaders are not dissidents; they are actually senior members of the Chinese Communist Party (CCP).

Here is the extraordinary irony: China, as a socialist country, is the only major economy in the world that still has neither a property tax nor an inheritance tax. As the political leadership seeks to build Xi Jinping's new era by bringing general prosperity to all, there will surely be stiff resistance from elites within the party, from commercial powers, and from upper income strata. We can expect that the concept and interpretation of the rule of law will be a central theme in the great debates to come.

Confucius and the Law

The great political debate, indeed the struggle that has defined the Chinese civilization, began more than two thousand years ago. It was the struggle between legalism and Confucianism (*fajia* versus *rujia*). During the Warring States period (475–221 BC), when China was divided into separate kingdoms battling endlessly for dominance, the kingdom of Qin eventually surpassed all others in economic and military power and unified China in 221 BC. It did so via the implementation of strictly applied legal codes. Shang Yang, a reformist government minister who instituted this legalism, is known in the annals of history as the political leader who set Qin on the path to empire.[47]

Legalism was on the march, but it was a short march. Brutally impersonal procedural rule led to rebellions and the Qin dynasty collapsed after only fourteen years.[48] The Han dynasty took over and the ensuing debates in political philosophy lasted nearly a century. Many schools of thought emerged, even flourished. But the central rivalry was between legalism and Confucianism.

Legalism was essentially the strict application of general rules that were set in advance. All were to be treated equally according to the terms of the rules, without exceptions; procedural justice trumped substantive fairness. As the legal theorist Lon Fuller has suggested, this notion of the rule of law is "indifferent toward the substantive aims of the law and is ready to serve a variety of such aims with equal efficiency."[49] Modern Western thinkers such as Montesquieu, Raz, Fuller, and Hayek could all be considered disciples of legalism in the Chinese context.

Confucianism, on the other hand, was centered on the concept of the "mandate of heaven." Moral legitimacy was the basis of just rule. The ruler held a divine right to rule as long as he looked after the welfare of the people, but would risk overthrow if he failed in this duty. Being a good ruler entailed not only giving procedurally correct orders but also engaging in moral conduct. And performance legitimacy—ensuring the welfare of the people—was an important dimension of state legitimacy. In short, Confucianism was mostly about substantive justice, not procedural legitimacy.

Moreover, by linking the right to rule with performance legitimacy, Confucian thought implied that the ruler in China was not absolutely divine. He had to deliver substantive goods. "Mandate of heaven" contrasted sharply with the European doctrine of divine right, which asserted that a monarch received power directly from God and was subject neither to earthly authority nor to the will of the people.[50] According to the European logic, as long as succession procedures were followed correctly, the monarch's rule was deemed legitimate. And this view persists in the West even in the modern era: in general, as long as voting procedures are correctly carried out, a leader in a democracy is legitimate no matter how bad he is. The Chinese tradition is decidedly not that.

A simplified version of history would suggest that, in the great struggle between legalism and Confucianism in the early years of the Han dynasty, the latter emerged victorious and has served as the political foundation of China for two millennia.[51] But it's more complex than that. In fact, most historians name this defining period in Chinese political history the Qin-Han Era. They group the Qin dynasty (legalism) and the Han dynasty (Confucianism) together. Zhao Dingxin explains in his book, *The Confucian-Legalist State*, that although the Han dynasty instituted Confucianism as the official state ideology, legalism always remained an integral part of China's political constitution.

The procedural approach to law—Qin legalism—has served as the practical method of governance throughout all Chinese dynasties. People expect generality, prescriptiveness, and equality in the design of rules. Confucianism, however, is focused on higher purposes: constraining the ruler, securing substantive justice, and maintaining communitarian values.

Confucianism attempted to address the eternal problem of the rule of law—how to constrain the sovereign ruler, whether it's a king or a parliament. The Confucian doctrine both conceptually and institutionally sought to supply a check on sovereign rule. For centuries, it worked in ways not dissimilar to how Germanic customary laws worked in feudal Europe. Tamanaha gives a concise explanation of the medieval roots of the rule of law in the West, based on a "fusion of law and morals": The ruler answered to a moral responsibility that was higher than mere legal procedure.[52] Indeed, both the ruler and the ruled were bound by this higher moral law. The ruler, by declaring his obligation to this higher moral law effectively bound himself in his rule, and his legitimacy before the ruled rested upon honoring that vow.

This custom gave the ruled, in certain circumstances, a "right of resistance" if the ruler violated his obligation.[53]

Confucianism dictated that the emperor's mandate of heaven could only be based on moral rule. The ruler's legitimacy was only valid if he ruled for the common good. Mencius went so far as to suggest that a ruler who violated the moral code could be deposed.[54]

At the institutional level, Confucianism shaped the highly elaborate mandarin governance system through which a cadre of powerful commoner-officials effectively administered the country. These *shi da fu*s were the embodiment of Confucian morals and served as an institutional check on the absolute power of the emperor, possessing the Confucian right to disagree with or even criticize the emperor.[55] The right to rebellion was implicit and real—attested to by the violent overthrows of dynasties every two or three hundred years, followed by new dynasties with renewed mandates of heaven.

By extension, this Confucian check on sovereign power also served as the political and legal structure for the delivery of substantive justice when procedures alone were inadequate. In China's dynastic history, there are many examples of procedural outcomes that were contrary to the moral values of society. In the cases that turned out successfully, morality prevailed. And this cannot be seen as against the spirit of the rule of law; very much the opposite is true.[56]

This, of course, is not at all inconsistent with the intellectual framework of the rule of law in the West. Ronald Dworkin, for example, put forth the idea that morality forms the background and is an integral aspect of positive law, even though morality is not actually established by positive law. It is the responsibility of judges to make decisions that are consistent with the moral and political consensus of the community, and this imperative is above and beyond the rules in the book.[57]

To be sure, Confucian morality is distinctly different from Dworkin's liberalism. But even here, there are meaningful areas of overlap between Confucian rule of law and the evolution of liberal rule of law. The most relevant is the similarity with modern communitarianism.

In the West, theorists mostly on the left have long argued that liberal rule of law "is irredeemably flawed owing to its starting presupposition of autonomous individuals joining together to form a legal order to facilitate the pursuit of their own vision of the good," to quota Tamanaha.[58] This criticism has only intensified and broadened since the financial crisis of 2008, and is now frequently heard from both the Left and the Right.[59] Liberal rule of law's overt emphasis on procedural justice based on the fundamental value of individualism has contributed to the atomization of communities in the Western world and thereby exacerbated the decline of substantive justice. Communitarianism, in this context, unites the Left and the Right in its call for substantive justice, be it income equality or social cohesion, the mobilization of a community of shared values around a common good. Given many Americans' yearning for the return of community or an advance toward socialism,[60] not to mention much stronger tendencies in European nations, communitarian movements will likely continue to grow stronger in the first half of this century.

And this is precisely the role that Confucianism played for centuries in its subordination of legalism. The values and purposes of the community have served as the overarching vault that houses Chinese rule of law. Rules are to be applied strictly but only in accord with the Confucian spirit. Communitarian faith lies at the foundation of Confucian politics—*tian xia wei gong . . . shi wei da tong* (heaven and earth for all, such is the great common).[61]

Just like Aristotle and his intellectual descendants, who have struggled with the idea of the rule of law in the West, the Chinese recognized long ago that the law cannot be soulless. At the same time, the soul of the law needs to be harmonized with procedural rules in the application of the law. This, of course, is no easy task and may never be fully realized.

The Party and the Law: Present and Future

The one question that has driven prolonged political debates in and about China has been this: the party or the law, which is more important? Or which should be more important (*dang da hai shi fa da*)? Conservatives say the party is and should be; liberals say the party is but the law should be. Both miss the point. Both misread the fundamental essence and issues of the rule of law.

The structure of Chinese rule of law depends upon the combination of legal procedures with party oversight. Over the past forty years, the country has developed an elaborate system of laws. The main criticism has been that enforcement has been lacking, but most experts agree that enforcement and the professionalism of the courts have steadily improved.[62]

The contentious issue is the role of the party. The Central Committee Politics and Law Commission remains the nation's highest power on legal matters. And the party disciplinary commission structure holds all party members accountable to the party's rules, which are different and stricter than the official legal codes and allow the party to mete out punishments outside the country's formal legal structure.

Yet under a richer understanding of the history of and theory behind the rule of law, these arrangements may be well within the conceptual framework of the rule of law—even in the Western tradition. The party represents political sovereignty; the law cannot bind that sovereign power in theory or in practice. But the party declares itself to be bound, and the people expect such constraint as a basis of the party's political legitimacy. Indeed, the party subjects its members to higher standards of conduct and more severe punishments for violations.[63] And in this very practical way, the party is indeed bound by the laws, at least no less than other forms of sovereign powers.

More importantly, the party, through its Central Committee Politics and Law Commission, serves as the ultimate recourse on substantive justice, just as the Confucian political/moral structure did for centuries, and liberal values and institutions are supposed to do now in Western societies. Of course, the values that undergird substantive justice are quite different. The party upholds China's Confucian-Socialist ideology and the West's liberal institutions uphold the moral commitments of liberalism. But we have already established that the rule of law is not, and never was, the exclusive purview of liberalism.

When procedural justice produces outcomes that contravene society's generally accepted conceptions of substantive justice, and when public disagreement is significant and clearly manifested, the party does have the authority to step in and tip the balance of justice in favor of the community. In contemporary China, such cases have been rare, but they have indeed occurred and produced broad social impacts.[64] Some have criticized such interventions by the party as going against the ideals of the rule of law, but it is this very interpretive power that is an integral part of the rule of law. Such interpretive power is inherently political. The presence of the political in the rule of law is independent of the ideology of the particular regime concerned. Liberal politics is within liberal rule of law. And Confucian-Socialist politics is within Chinese rule of law.[65]

The party's political power over legal procedures also serves as the ultimate guarantor ensuring that procedural justice does not supersede the polity's fundamental values, as in Dworkin's claim that liberal society's consensus on moral imperatives forms the foundation of laws and their applications.[66] In China, the party plays this role instead of an "independent" judiciary. Therefore, the question of whether the party or the law is more important is a false dichotomy.

To be sure, conceptual clarity does not mean that reality is not messy on the ground. In China, the development of the rule of law has been and certainly is messy. Party committees at different levels often interfere arbitrarily with legal proceedings. There is a thin line between ensuring substantive justice and wanton political interference on behalf of special interests, or worse, for downright corrupt purposes.

On the other end of the spectrum, excessive legalism also plagues the development of Chinese rule of law. In an understandable attempt to move away from the rule of man after the Cultural Revolution, the legislature and the judiciary have codified increasingly larger portions of civil and commercial activities. In many areas, such as environmental protection and domestic disputes, the legal codes are elaborate and need to be applied in a unified fashion nationwide—and rigorous enforcement of existing laws remains an issue and source of complaint.[67] But it is also true that many of these codes, if applied strictly, without consideration for actual circumstances and regional differences—between urban and rural communities and other distinctive social groups—can prove practically unsuitable and contrary to the purposes of social justice.[68]

Looking forward, dealing with these issues and harmonizing the myriad conflicts that are both inherent to the rule of law and particular to China's circumstances will be a long and arduous process. But there are reasons for optimism. Both the party and the general public want a society in which general rules are made in advance and applied equally. Procedural justice has been and is being enhanced.

At the same time, the general consensus on values and moral imperatives in Chinese society is now the strongest it has been in perhaps a century and a half. For the foreseeable future, the moral imperatives of the Chinese nation are clear and simple: socialism and national renaissance. The former is the two-thousand-year Confucian patrimony of an egalitarian and just society for the "common good" expressed in modern form. The latter is the culmination of the struggles to survive that unified an entire people in the modern era. Chinese rule of law, in whichever procedural direction it may evolve towards, has a soul. The party, if it guards against corruption and elitism, will continue to embody the soul of substantive justice, and such embodiment will continue to be accepted by the people.

Perhaps it is time we free the rule of law from the unwarranted ideological bondage of liberalism. As Randall Peerenboom points out in his book *China's Long March toward Rule of Law*,[69] China does not need liberalism to have the rule of law. The same reasoning applies to other nonliberal societies. We may see many new possibilities for the fulfillment of the promises of the rule of law in a more pluralistic world.

The irony is that the state of the rule of law seems most fragile in liberal societies, and this is concerning in a more fundamental way. Across liberal societies in the West, their moral consensus has been shattered. Communities are decaying and societies are polarized on basic values such as identity, gender, and equality. Liberalism has fallen victim to the worst impulses of its anti-communitarian tendencies. Perhaps as a result, procedural justice has become a purely political and adversarial game. Soulless laws cannot sustain legitimacy for long. Western elites would be well advised to concentrate on introspection instead of continuing their rule of law road shows around the world.

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[4] The Fourth Plenary Session of the Eighteenth CPC Central Committee in 2014 was the first time that a Party session centered on rule of law. The general target is to form a system serving "the socialist rule of law with Chinese characteristics" and build a country under "the socialist rule of law." See *Communiqué of the Fourth Plenary Session of the 18th Central Committee of the Communist Party of China*, October 23, 2014.

[5] Brian Z. Tamanaha, *On the Rule of Law: History, Politics, Theory* (Cambridge: Cambridge University Press, 2004), 55.

[6] Sheryl Gay Stolberg, "Justice Anthony Kennedy's Tolerance Is Seen in His Sacramento Roots," *New York Times*, June 21, 2015.

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[9] Michael Kruse, “The Weekend at Yale That Changed American Politics,” *Politico* (September/October 2018); Jeffrey Toobin, “The Conservative Pipeline to the Supreme Court,” *New Yorker*, April 17, 2017.

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[11] Judith N. Shklar, “Political Theory and the Rule of Law,” in Allan Hutchinson and Patrick Monahan, eds., *The Rule of Law: Ideal or Ideology* (Toronto: Carswell, 1987).

[12] John Locke, *Two Treatises of Government*, ed. Peter Laslett (Cambridge: Cambridge University Press, 1988).

[13] Joseph Raz, “The Rule of Law and Its Virtue,” in *The Authority of Law: Essays on Law and Morality*, 2nd ed. (Oxford: Oxford University Press, 2009), 210–29.

[14] Edward Jenks, “The Myth of Magna Carta,” *Independent Review* 4, no. 14 (1904).

[15] John Rawls, *The Law of Peoples, with “The Idea of Public Reason Revisited”*, (Cambridge: Harvard University Press, 1999).

[16] Brian Z. Tamanaha, “The History and Elements of the Rule of Law,” *Singapore Journal of Legal Studies* (December 2012): 232–47.

[17] Thomas Hobbes, *Leviathan*, ed. Richard Tuck (Cambridge: Cambridge University Press, 1996).

[18] Carl Schmitt, *Political Theology: Four Chapters on the Concept of Sovereignty*, trans. George Schwab (Chicago: University of Chicago Press, 2005); *Political Theology II: The Myth of the Closure of Any Political Theology*, trans. Michael Hoelzl and Graham Ward (Cambridge: Polity, 2008).

[19] It is important to note, of course, that Schmitt's doctrine of sovereignty is contested by others, such as Hannah Arendt and Michel Foucault.

[20] See Tamanaha, *On the Rule of Law*; James, R. Stoner, *Common Law and Liberal Theory: Coke, Hobbes, and the Origins of American Constitutionalism* (Lawrence, Kan.: University Press of Kansas, 1992).

[21] Tamanaha, *On the Rule of Law*, 57.

[22] Max Radin, "The Myth of Magna Carta," *Harvard Law Review* 60, no. 7 (September 1947): 1060–91.

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[24] Tamanaha, *On the Rule of Law*.

[25] A. V. Dicey and Emlyn Capel Stewart Wade, *Introduction to the Study of the Law of the Constitution*, 10th ed. (London: Macmillan, 1959).

[27] Aristotle, *Politics*, trans. Benjamin Jowett (Oxford: Oxford University Press, 1963), 140.

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Foxconn's Rise and Labor's Fall in Global China

JENNY CHAN JULY 29, 2016

Amid the coronavirus pandemic and the ongoing U.S.-China "trade war," many multinational corporations are reconsidering the opportunities and risks of global supply chains, particularly those based in China. Within China, another long-festering question is growing more acute on the ground, even though it has faded from international view. Hundreds of millions of Chinese workers, toiling away at the production of Western consumer electronics, continue to face threats to their health and livelihoods —from the informalization of labor relations to the loss of income from factory closures—that are only growing worse.

Back in 2009, when *Time* magazine named Chinese workers the runners-up for "Person of the Year," the editor commented that Chinese workers have brightened the future of humanity by leading the world to economic recovery. The reality is much different, however. A closer look at the world's largest electronics manufacturer, Foxconn, gives us a window into the lives of Chinese workers over the past few years, and what it shows is that the new generation has experienced the shattering of the "Chinese dream."

At Foxconn, most young migrant workers (born primarily in the 1980s and 1990s, but increasingly also in the 2000s) aspire to earn a living wage, develop technical skills, start a family, and secure welfare benefits and the full range of citizenship rights in the cities they inhabit.[1] With China's deepening social and class inequality, however, many have quickly learned that formidable obstacles stand between them and success. In 2018, for example, although the total number of Foxconn employees who quit was not publicly reported, 73 percent were below thirty years old, and most of them (68 percent) were male.[2] These numbers reflect both the mobility of labor and the despair of working youth.

Between the rash of employee suicides in 2010 and the outbreak of coronavirus at the end of 2019, Foxconn sought to protect its image and hide the role played (or abandoned) by global tech corporations and the Chinese state in the lives of its workers. My colleagues and I engaged with Foxconn workers through interviews as well as their shared poems, songs, open letters, photos, and videos, supplemented with meetings with managers and government officials. The workers who produce the iPhones, Kindles, Xboxes, and other gadgets for an international clientele deserve to have their story told. In what follows, I describe our findings.

Terry Gou's Foxconn

Since 1974, Terry Gou has built Foxconn into the "electronics workshop of the world." From a geopolitical perspective, Foxconn's rise coincided with the global industrial transformation that occurred as corporate giants in the West and East Asia shifted major production sites abroad.[3] Following the U.S.-China rapprochement of the early 1970s and the China-Taiwan opening of the 1980s, Gou was quick to seize the new opportunities created by Taiwan's industrial policy while also leveraging China's reintegration into the world economy. Taiwanese and Hong Kong–based entrepreneurs invested $107 billion in China between 1982 and 1994 (more than 70 percent of the foreign direct investment inflow to mainland China), and the result was the creation of a Greater China industrial export powerhouse.[4]

In 1991, three years after Foxconn's first investment in China, Gou listed shares on the Taiwan Stock Exchange. With new capital and incoming orders, the company continued to gain wider access to international markets, particularly after China's accession to the World Trade Organization in 2001.[5] In 2003 and 2004, Foxconn acquired handset assembly plants owned by Motorola in Mexico and by Eimo Oyj in Finland. The company also merged with Ambit Microsystems Corporation in Taiwan, enabling it to branch out from computer production to mobile communications equipment manufacturing.[6] As *CommonWealth* magazine reported, "Gou presided over successive lightning quick acquisitions across Scandinavia, South America, and Asia, becoming Taiwan's first business chief to complete mergers on three different continents within a single year."[7]

By 2005, it was estimated that "90 percent of Hon Hai's net profit" was generated from "its business in China" (Hon Hai Precision Industry Co., Ltd. is the legal name of Foxconn's Taipei-based holding company entity).[8] For eight consecutive years between 2001 and 2009, Foxconn ranked number one as China's largest exporter.[9]

In addition, Foxconn has steadily climbed the value chain through research, patent acquisition, automation, and digitization. By 2010, Foxconn had acquired 39,870 patents worldwide in nanotechnology, heat transfer, optical coating, electrical machinery, semiconductor equipment, and wireless networking. The number doubled to 79,600 patents in 2016[10] and rose to 89,300 in 2019, demonstrating Foxconn's industrial innovation and technological entrepreneurship.[11] Indeed, Foxconn has a major presence at one of China's leading universities. The Tsinghua-Foxconn Nanotechnology Research Center is located at Tsinghua University in Beijing, where scientists study nanoscale materials to take advantage of such properties as greater strength and lighter weight.

Foxconn's vision is in sync with China's larger policy aim of continual technological advancement. The ten-year national program "Made in China 2025," which was launched in 2015, plans to transform China into an intelligent manufacturing base. As early as July 2016, Chia-Peng Day, general manager of Foxconn's Automation Technology Department Committee, reported that Foxconn had installed "about 40,000 fully operational industrial robots," in addition to "hundreds of thousands of other pieces of automated equipment."[12] Two years later, in June 2018, Foxconn Industrial Internet Company, a subsidiary that makes industrial robots and cloud services equipment, was listed on Shanghai's stock exchange. By 2018, Foxconn had deployed more than eighty thousand industrial robot units in its factories.[13] These robots—"Foxbots"—are automatons capable of spraying, welding, pressing, polishing, quality testing, and assembling printed circuit boards.

Across all levels of government, China has provided incentives to enterprises to accelerate growth.[14] At the provincial level, regional competition to secure foreign investment is intense, and this competition has further aided Foxconn's rise. In South China, for example, Foxconn has enjoyed government subsidies and privileges to move ahead with big projects in the Guangdong–Hong Kong–Macao Greater Bay Area (comprising nine fast-developing cities in Guangdong province and China's special administrative regions of Hong Kong and Macao). In 2016, Foxconn set up an ultra-high-definition panel facility by transferring the technical know-how of the newly acquired Japanese electronics company Sharp to Guangzhou, provincial capital of Guangdong. Critical to this move was the Guangzhou municipal government's agreement to sell "a plot of land covering 1.26 million square meters" to Foxconn "for 989 million yuan—a price that was only a fraction, or about 5 percent, of the price charged to other developers."[15]

In Zhuhai in 2018, on the border of Macao, Foxconn began construction of a semiconductor plant. Foxconn Zhuhai focuses on integrated circuitry and high-performance chips for artificial intelligence and 5G high-speed telecom networks. The municipal government announced that it will "spare no effort to optimize the business environment and provide quality and efficient services for Foxconn development in Zhuhai."[16] This development of the Greater Bay Area and clustering of scientists and technology experts will only strengthen the regional importance of Foxconn.

"In twenty years," suggested one business executive in 2010, "there will be only two companies—everything will be made by Foxconn and sold by Wal-Mart."[17] An exaggeration, to be sure (and perhaps Amazon, which contracts with Foxconn to build Kindles and Echo devices, would be more au courant in 2020), but it does underlie the impressive growth of Foxconn. By revenue, Hon Hai is the biggest company in Taiwan (topping over $172 billion in sales in 2019, equal to about 28 percent of the national GDP) and ranks twenty-sixth on the *Fortune* Global 500 list. Today it operates more than thirty industrial parks across coastal and interior China, creating a twenty-four-hour, high-speed production network predicated on vertical integration and flexible coordination.

Outside China, thanks in part to President Xi's call for massive investment via the Belt and Road Initiative (connecting China to Eurasia and Latin America through building roads, rails, and ports internationally), Foxconn runs science and technology hubs in strategic bases such as the Czech Republic, Slovakia, Hungary, Japan, Vietnam, India, Mexico, Brazil, and the United States. All told, Foxconn has more than two hundred subsidiaries and branch offices in Asia, the Americas, and Europe, representing nearly 40 percent of the global market in electronics manufacturing.[18] What remains understudied, however, is Foxconn's utilization and control of labor in China, as well as the importance of this strict labor management to the company's profitability.

Foxconn Workers in China

Foxconn is China's biggest private sector employer. Since 1988, when centered in Shenzhen close to Hong Kong, the Taiwanese company has moved to geographic clusters of the Pearl River Delta in South China, the Yangzi River Delta (concentrated around Shanghai and extending across the eastern provinces of Jiangsu and Zhejiang), and the Bohai Rim (including Beijing, Tianjin, and surrounding provinces of Hebei, Shandong, and Liaoning). In each of these locations, preferential policies, previously limited to southern coastal areas, have vastly expanded to encourage new investment. Tapping state funding for more geographically balanced growth, Foxconn has also constructed new facilities in the central and western regions, constituting a nationwide industrial supply base.

A colorful company job ad reads, "Pool the whole country's talent, paint splendid prospects." And a recruitment officer proclaims, "Your potential is only limited by your aspirations! There's no choosing your birth, but here you will reach your destiny. Here you need only dream, and you will soar!" Stories of successful entrepreneurs like Apple cofounder Steve Jobs, Intel chairman Andrew Grove, and Microsoft founder Bill Gates are told again and again to inspire youthful workers.

At the gigantic Shenzhen Longhua "campus," as the Foxconn managers like to call it, there are multistory factories, high-rise dormitories, warehouses, two hospitals, two libraries, a bookstore, a kindergarten, an educational institute (with the grandiose name "Foxconn University"), a post office, a fire department with two fire engines, an exclusive television network, banks, soccer fields, basketball courts, tennis courts, track and field, swimming pools, cyber theaters, shops, supermarkets, cafeterias, restaurants, guest houses, and even a wedding dress shop. Foxconn's campus is the very image of a modern company town. The assembly lines run on a twenty-four-hour basis, particularly when the production schedule is tight. When we visited, the well-lit factory floor was visible from afar throughout the night.

Inside "Foxconn city," unresolved tensions have arisen, however. From the moment they enter the factory gate, workers are monitored by a security system more intrusive than any that we have seen in the neighboring, smaller electronics processing factories. "Foxconn has its own security force, just as a country has an army," a stern-faced, broad-shouldered security officer stated as a matter of fact. Workers pass through successive electronic gates and "special security zones" before arriving at their workshops to start work. Foxconn's preoccupation with tight security reflects its clients' concern with secrecy to protect their intellectual property, prevent loss of their products, and assure that their high-volume goals are met. In keeping with its missions of data protection and technological advancement, Foxconn has installed a facial recognition system at the main entrances to its Longhua complex to improve identity checks.

The workplace and living spaces are compressed to facilitate high-speed, round-the-clock production. The dormitory warehouses a massive rural migrant labor force isolated from family relations. Whether single or married, each worker is assigned a bunk space for one person. In contrast to the corporate image of "a warm family with a loving heart," Foxconn workers frequently experience isolation and loneliness—some of it seemingly deliberately created by managerial staff to prevent the formation of strong social bonds among workers.

Managers, foremen, and line leaders prohibit conversation during work hours in the workshop. New workers are often reprimanded for working "too slowly" on the line, regardless of their efforts to keep up with the "standard work pace." "Outside the lab," according to an ominous saying of CEO Terry Gou, "there is no high tech, only implementation of discipline."

In the aftermath of the wave of suicides in 2010, industry leaders and corporate ethicists speculated that Foxconn would soften its stance toward workers and employees, and that suppliers in the buyer-dominated global production chain might have more room to maneuver. Considering the central importance of China's production and consumption markets, it was also thought that public relations incentives (notably Apple's commission of the Fair Labor Association to assist Foxconn in drawing up a remedial action plan from 2012 to 2016) might also make management more humane. But the facts do not paint an encouraging picture.

Suicide at Foxconn

During the first five months of 2010, problems with the workforce at Foxconn spilled into the international news. A dozen workers were known to have attempted suicide at company facilities in China. Following the twelve "jumpers," Taiwanese unions and labor activists unfurled white banners to mourn the workers in a protest against Foxconn in Taipei. One banner read, "For wealth and power: physical and mental health spent, hopes lost." Another proclaimed, "For profit of the brand: youthful days devoted, dreams shattered." Shortly after, nongovernmental organizations demonstrated at Foxconn's annual general meeting in Hong Kong to extend condolences to the victims' families and demand reforms in the interest of workers.

By the end of June, a team of suicide prevention experts assembled by Apple —Foxconn's largest customer—recommended a series of quick Foxconn actions, including hiring psychological counselors, establishing a twenty-four-hour employee care center, and, grimly, attaching large nets to the factory buildings to prevent death from jumping.[19] Apple's then chief operating officer Tim Cook also met with Gou and members of his senior staff to better understand the conditions at Foxconn's mega production sites in Shenzhen, where more than five hundred thousand employees were ramping up production of the iPhone 4, the first-generation iPad, and numerous other branded consumer electronics products.[20]

Like Foxconn, Apple confined discussion of the issues to the realm of psychology and mental health, ignoring company policies on contentious labor issues, including wages and excessive compulsory overtime. In driving its contractors to produce on a gargantuan scale, and setting precise standards in the most cost-effective way, Apple has remained in the driver's seat in the context of transnational production. It is important to highlight that, as of 2010, Foxconn was the exclusive final manufacturer not only of iPhones and iPads for Apple, but also a major contractor on a wide array of electronics products for many tech giants, including Amazon, Microsoft, Intel, Dell, HP, Samsung, Sony, and Huawei.

By December 2010, eighteen Foxconn workers had tried to take their lives. Fourteen were dead. Four survived with crippling injuries. Tragically, ranging in age from seventeen to twenty-five, they were in the prime of youth.[21] Liu Kun, the Foxconn public communications director, pointed out that the company had nearly one million employees in China alone, and that the reasons for the suicides could not simply be reduced to Foxconn policies. "Given its size, the rate of self-killing at Foxconn is not necessarily far from China's relatively high average," reported the *Guardian* newspaper, quoting the cavalier comment of company officials.[22]

But suicide is *not* evenly distributed in any population. Studies suggest elderly suicides represent over 40 percent of Chinese suicides.[23] The suicide cluster at Foxconn, in contrast, was carried out by young employees. Why would suicides by these young people working and living in the cities spike when medical professionals found that 88 percent of suicides by Chinese youth occurred in the countryside?[24] The concentration of the suicide cases at Foxconn points to something new and important in the context of the company's integration into a high-pressure global supply chain.

Designed by Apple, Assembled by Foxconn

Apple and Foxconn are independent companies, but they are inextricably linked in product development, engineering research, manufacturing processes, logistics, sales, and after-sales services. By the end of the 1990s, Apple had shifted all of its U.S.-based manufacturing jobs and some of its research facilities overseas,[25] while retaining only a small number of workers and staff at its Macintosh computer factory in Ireland. This outsourcing meant that Apple's success became inseparable from the contributions of its international suppliers and their workers—above all Foxconn and its Chinese employees.

Foxconn's iPhone plant in Zhengzhou (Henan Province) and its iPad plant in Chengdu (Sichuan) both began operations in the latter half of 2010 amid the suicide tragedy. Apple has exclusive access to the Foxconn production facilities in both areas. Jeff Williams, Apple's senior vice president of operations, acknowledged in 2014 that "more than 1,400 talented engineers and managers were stationed in China" to manage engineering and manufacturing operations at large production sites, and that they worked and lived "in the factories constantly."[26] Two major Apple business groups, namely, iDPBG (integrated Digital Product Business Group) and iDSBG (innovation Digital System Business Group), have become "the superstars at

Foxconn," a production manager said in his recounting of the corporate history.

The presence of Apple staff has not prevented the occurrence of labor problems at its huge China supply base, however. Indeed, it may exacerbate them. More than a dozen "business groups" compete within Foxconn on speed, quality, efficiency, engineering services, and added value to maximize profits. Foxconn executives understand that any failure to meet Apple production targets and quality standards could mean the loss of contracts. As a result, Foxconn's management has repeatedly forced overtime. With only a single day off every second week, or two rest days during the whole month in the lead-up to the release of a new Apple product, there is no spare time for workers to use the Olympic-sized swimming pool or other recreational or educational facilities.

China's national labor law stipulates a forty-hour regular workweek, which can be extended by a maximum of three hours a day or thirty-six hours a month, but only when workers consent. Yet although Apple requires its suppliers to meet the working-hour standards stipulated by applicable laws, it routinely fails to monitor working conditions. In reality, Foxconn employees race against time at Apple's command to get the work done regardless of the toll that compulsory overtime and speedups take on workers.

The new ultrathin iPhones, for instance, scratch so easily that they must be held in protective cases during assembly. The cases make workers' delicate operations even more difficult, but no extra time is given to complete each task. Every second counts toward profit. "We are working even faster than the machines. Now we must use both hands at work to increase efficiency and productivity. Not a hand is left idle for a moment. For example, I hold an electric screwdriver with my right hand, and fix the screws with my left hand. Then, I pick up another printed circuit board. I screw the screws without a break," a worker commented.

"Each screw turns diligently, but they can't turn around our future," a worker's verse read. Over the years, Foxconn, not unlike its competitors, did raise its base wage to recruit and retain workers. But it was not until March 2015 that the Shenzhen municipal government raised the minimum wage to 2,030 yuan a month, surpassing the 2,000 yuan ($300) threshold for the very first time.

From a broader perspective, Foxconn's management regime, including its policies on wages and hours, is a response to the high-pressure purchasing practices of global corporations. It is not only conditioned by the competitiveness of the local labor market. The fluctuation of orders, coupled with tight delivery requirements, shifts production pressure from global buyers to Foxconn and smaller suppliers in transnational manufacturing.

In fiscal year 2019, the iPhone alone generated more than half of Apple's revenues (54.7 percent)—over $142 billion.[27] Of greatest concern, iPhone shipments experience extreme spikes during the holiday seasons and close to the new year.[28] Foxconn, the largest Apple supplier, needs to periodically extend working hours and adapt its workforces to the boom-and-bust trends of Apple products. Consequently, the company is incentivized to shun longer-term commitments to employees and to expand informal employment. During the period of rapid business growth since 2010, Foxconn workers and managers were "flexibly" transferred between factories and jobs to reach ever-higher productivity and profit goals. This reflects an emergent pattern of massive, corporate-led migration and labor flexibility—what amounts to treating workers as pure commodity parts. For workers, contrary to corporate propaganda, the moves are not always voluntary or harmonious.

Student Interns as Cheap Labor

With continuing demand for the iPhone and iPad, among other best-selling products, Foxconn's labor needs have remained strong, leading to aggressive practices to bolster its workforce at the lowest possible cost. One such tactic has been the large-scale use of "student interns." During the summer of 2010 alone, Foxconn employed 150,000 student interns in China—15 percent of its entire million-strong Chinese workforce[29]—dwarfing Disney's College Program, often cited as being among the world's largest internship programs with more than 50,000 cumulative interns over thirty years.[30] Moreover, Foxconn's so-called internship programs have often been extended to meet factory production plans, ranging from three months to a full year, in complete disregard of student educational needs.[31] Working on the line and living in the factory dormitory, students must comply with the Foxconn "internship program" on pain of not graduating.

Good internship programs are practice-oriented and participatory, contribute to students' development, and are related to their field of study. Foxconn has remained silent about its workplace training content and skill evaluation methods, but interviews with student interns make clear that the company's internship concept is a complete sham. Students in a range of fields from healthcare to auto repair are simply placed on the assembly line with no skill training, working overtime and night shifts, ten- to twelve-hour workdays, six to seven days a week during peak seasons. This is despite the fact that China's official 2007 Administrative Measures for Internships at Secondary Vocational Schools clearly states that "interns shall not work more than eight hours a day,"[32] and the 2010 Education Circular likewise specifies that "interns shall not work overtime beyond the eight-hour workday."[33]

Student interns from vocational schools are Foxconn's new blood. Analysts have long pointed out that "the main cost-saving feature of informality is less the absolute level of wages than the avoidance of the 'indirect wage' formed by social benefits."[34] In China, the government-administered insurance program consists of five parts: work-related injury benefits, medical benefits, old age pensions, unemployment benefits, and maternity benefits. Maintaining that student interns are *not* employees—even when they perform work identical to that of production workers—Foxconn does not enroll interns in local social security. During 2015, in first-tier cities in Guangdong province, employers were to contribute 29.2 percent and employees 11 percent of the employee's wages to social insurance on a monthly basis. That is, Foxconn's insurance payment should have been 876 yuan if the monthly income of a worker fell under 3,000 yuan in total, including base pay, overtime premiums, and/or subsidies. By dispensing with all of these benefits for interning students, the company avoided considerable employment expenses.

Foxconn, with government collusion, systematically violated the letter and the spirit of the law governing interns. Local education bureaus pitched in by identifying vocational schools suitable for Foxconn internship program recruiting. To assure their cooperation, governments disbursed funds to schools that fulfilled company targets for enrolling student interns. Schools that failed to meet human resources requirements lost funds.

"Every day is just a repetition of one or two simple motions, like a robot," a sixteen-year-old student complains. If the Foxconn internship program is any indication, internships are not performed for the benefit of the intern. It is a cruel irony that vocational schools who market themselves as preparing the next Leonardo da Vincis and Thomas Edisons instead send interns to work day and night to make iPhones during peak periods of demand, leaving them with no time to study. Teachers have become labor contractors who receive two paychecks—one from their school and the other from Foxconn—to supervise their interning students at the factories. This trade in "forced student labor" is effectively a joint undertaking between Foxconn, local states, and global buyers like Apple.

Labor Strikes and Protests

The buyer-driven business model assures the primacy of profitability for companies that operate at the top of industries—and precarious working conditions for workers on the front lines of production. Corporate demand for intense speed has contributed to antagonism and conflict between workers and management, generating grievances on the shop floor. Labor actions, not surprisingly, have been frequent.[35]

In key nodes of globalized electronics production, particularly in periods in which sales leaps are expected, large-scale labor actions can send important messages to the state, to Foxconn, and to global brands. Sometimes these contribute to worker gains. In early October 2012, for example, three thousand workers protested against management abuse at one Foxconn facility. Although acts of resistance are usually short-lived, these organizing experiences can still be valuable as workers learn to articulate their demands through collective bargaining. Workers have sought to expose their inhumane treatment using both offline and online methods to mobilize the media and the wider public for support. In addition to organizing protests and strikes at the factory, workers also amplified their voices through blog posts, poems, and open letters documenting the various abuses, even when the government had stepped up censorship and surveillance to ensure a media blackout.

In the interest of maintaining social and political stability, government officials serve as brokers to pressure companies into compromising with workers.[36] In massive strikes, either government mediators or the employer require workers to elect representatives (generally limited to five) to engage in talks. This intervention typically marks the beginning of the fragmentation, co-optation, and crushing of worker power.[37] The leading workers who confront management and, on occasion, the government and police, risk being charged with disrupting the social order and being fired and/or imprisoned.

In contrast to the decline of union representation in the United States and other Western countries, Foxconn and many other large-scale Chinese enterprises are fully "unionized" through the All-China Federation of Trade Unions.[38] Formalities aside, however, workers lack voices and democratic participation in the unions, which are subordinate to the Chinese

Communist Party. Both management and the government vigilantly seek to prevent the emergence of autonomous unions that might empower workers.[39]

But in the face of numerous labor protests, the Foxconn Trade Union felt the need to address the gaps in union-worker communications to preempt unrest. The company placed feedback boxes inside the main production complexes and dormitories. "Satisfaction surveys" about canteen food quality, dormitory services, and employee assistance programs, among others, were regularly conducted, and the results were published in the *Foxconn Weekly* (the freely distributed company newspaper that sought to strengthen communication with employees). "When there's trouble, look to the union," was reiterated by the company union hotline. Foxconn also offered face-to-face consultation to workers facing family distress, financial difficulties, and other personal problems. But in the absence of effective grievance resolution procedures at the workplace, many problems festered.

Foxconn's Future

Throughout modern Chinese history, workers' demands have resulted in expanded employment and renewed calls for greater workplace rights. But many of those rights remain aspirational. Legal rights have frequently been treated like commodities, with workers, employers, and government officials bargaining among themselves rather than through organized arbitration and litigation.[40] The anti-suicide nets and barred windows installed at Foxconn buildings in 2010 (and remaining today!) are a reminder of worker hardship and the shared corporate failure of Foxconn, Apple, and other tech companies—as well as the failure of the Chinese state to guarantee worker rights.

New issues have recently emerged with the Covid-19 pandemic. As of March 2020, Foxconn reported that its major factories in China had returned to normal production after the coronavirus outbreak forced it to cease operations in late January. With governmental coordination, hundreds of thousands of rural migrant workers from all over the country eventually reported for duty. The company union reminds workers to wear masks at work and in the dormitories, while lecturing workers that a healthy workforce functioning at full speed must make up for lost time.

Many questions remain, however. How long will Foxconn and the Chinese state be able to quell discontent and block the emergence of effective workers' representation and the securing of fundamental worker rights? Should workers at Foxconn and elsewhere succeed in organizing and mobilizing effectively, they would inspire many more to strive to make a better future together. Given the economic importance of Foxconn and its durable relationship with major clients, engagement with its workers is strategically important for achieving significant long-term changes in global supply chains.

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Notes

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[11] Foxconn, "Corporate Social Responsibility Report 2019," 2020, 21.

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[26] (Apple senior vice president) Jeff Williams, email message to staff, December 19, 2014, referencing *Panorama*'s program entitled "Apple's Broken Promises."

[27] For Apple's annual revenues by product and service, see the company's financial report for the fiscal year ended September 28, 2019 (Form 10-K).

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The Digital Age Produces Binary Outcomes

DAVID P. GOLDMAN DECEMBER 20, 2016

The digital age produces binary outcomes. Winners tend to win overwhelmingly—in war as well as in business. The Soviet Union crumbled in the late 1980s when American technology bested Soviet military spending, then estimated at a quarter of GDP. The enormous Russian bet on military power lost and Communism fell. America emerged from the Cold War with a degree of military superiority greater than any country in modern history. It also emerged with a technologically driven economy that had no real competitor, with Russia close to ruin after the collapse of Communism and China in an early stage of economic development.

We have since come to consider American technological dominance a natural feature of the global landscape. That is a potentially fatal error. The military balance between the West and the Soviet Union shifted several times during the Cold War until the digital revolution gave the United States a definitive edge. But America achieved technological supremacy only because its leaders acted with a sense of urgency and responded to Russian advances by mobilizing America's resources on a grand scale.

Military strength and economic strength often rely upon the same policy foundations. The military and aerospace initiatives that won the Cold War also gave American companies a significant lead in the development of high technologies. That advantage has diminished steadily in the years since the fall of Communism, however. Without aggressive countermeasures, we risk losing it entirely.

We need to play catch-up in numerous fields. But the most glaring deficiency of the current policy approach is the decline of federal R&D spending relative to GDP. The policy initiatives that succeeded so brilliantly during the Cold War should provide a template for policymakers today. Renewing and improving defense R&D programs are not only essential to national security but can also become a critical driver of innovation and economic growth.

The Role of Technology in Winning the Cold War

Although the American victory in the Cold War was decisive when it ultimately came, that does not mean that it was easy, let alone foreordained. Different policies might have spelled defeat. The Soviet Union sent the first satellite into space in 1957 and the first man into space in 1961. If the Eisenhower administration had not responded to Sputnik with massive funding for basic research and scientific education, or if John F. Kennedy had not proposed the moon shot after Yuri Gargarin's first flight into space, or if public funds had not been channeled into private research facilities to meet military needs, or if Ronald Reagan hadn't undertaken the Strategic Defense Initiative—we would be living in a different world.

During the 1970s, military analysts calculated rates of attrition of tanks and aircraft to determine who was likely to win a war. At the time, they reckoned that Russia would beat the West in a war of attrition, and conventional wisdom called for détente as a way of delaying an inevitable

Soviet victory. Russian surface-to-air missiles and artillery as well as guided anti-tank weapons gave the advantage to Soviet-aligned Egypt in the largest air and tank battle since World War II, the 1973 Yom Kippur War between Israel and its neighbors. As Deputy Secretary of Defense Bob Work said in a September 2016 speech:

> In 1973 the Yom Kippur War provided dramatic evidence of advances in surface-to-air missiles, and Israel's most advanced fighters … lost their superiority for at least three days due to a SAM belt. And Israeli armored forces were savaged by antitank guided munitions. U.S. analysts cranked their little models and extrapolated that the balloon went up in Europe's central front and we had suffered attrition rates comparable to the Israelis. U.S. tactical air power would be destroyed within seventeen days, and NATO would literally run out of tanks.

Calculating men concluded that Russia would win an air and land war with the United States in Europe, which meant that Russia had the upper hand in the Cold War.

Then came the militarization of the microchip. During the Syrian collapse in June 1982, Israel deployed a combination of American and locally developed weapons systems and technologies, many in their first combat use, including F-15s and F-16s, AWACs,[1] lookdown radar, and remotely piloted vehicles. Decoy drones drew fire from the Soviet-made SAM batteries while Israeli fighters destroyed 17 out of the Syrians' 19 batteries. Superior command and control through faster computation and lookdown radar allowed Israeli F-4s, F-15s, and F-16s to destroy nearly 100 Syrian planes over the Bekaa Valley while losing just one Israeli fighter.

Such a victory would have been impossible without the new fast and light microchips that enabled the American-made fighters to carry sufficient onboard computing capacity for the new radar systems. The CMOS chips that powered the F-15's lookdown radar (beginning in 1978) were manufactured for the first time only ten years earlier, and for entirely different reasons. Originally the Defense Advanced Research Projects Agency (DARPA) commissioned RCA researchers to manufacture fast and light chips for weather analysis. In fact, the definitive inventions of late twentieth century technology—laser-powered optical networks, fast and light integrated circuits, and the Internet—all came out of Defense Department projects whose originators could not have foreseen the impact of the new discoveries.

The "Bekaa Valley Turkey Shoot" of 1982, as it came to be called, marked a decisive shift in the Cold War. In less than a decade, the American military (with some contributions from Israel) reversed what had appeared to be a decisive Soviet advantage in air combat and established overwhelming American superiority. By 1984, as Deputy Secretary Work commented, "Soviet Marshall Ogarkov famously said that reconnaissance strike complexes, the Soviet and Russian term for battle networks, could achieve the same destructive effects as low-yield tactical nuclear weapons."[2] The Soviet military concluded that it could never catch up to American avionics. That and the threat of the Strategic Defense Initiative persuaded Russia's leaders that America would win a conventional war, which set in motion the collapse of Communism.

Despite the overall weakness of President Jimmy Carter's foreign policy, the Defense Department under Secretary Harold Brown achieved many of the technological breakthroughs that helped the Reagan administration win the Cold War during the 1980s. In collaboration with the national laboratories and several major corporate laboratories, DARPA made a revolution in war-fighting that for the first time brought massive computing power to bear in a practical way. All the elements of the modern digital economy—integrated circuits, laser-powered optical networks, sensors, and displays—were invented at the behest of NASA or the Defense Department.

The director of RCA Labs who supervised their manufacture, Dr. Henry Kressel, and this writer described the impact of military-driven research and development in a 2013 article in the *American Interest*:

> When DARPA set out to create a communications system with multiple pathways for national security reasons, no-one had the slightest notion that this would create the Internet. When the Defense Department contracted RCA Labs in the 1970s to develop ways to illuminate night-time battlefields, no-one could have foreseen that the semiconductor laser would revolutionize telecommunications. And when the Defense Department commissioned RCA Labs to develop light and energy-efficient information processors to analyze weather data in the cockpits of military aircraft, no-one expected that the outcome would be mass production of inexpensive chips by the CMOS method.[3]

Kressel added:

> Companion technologies also sprang up that greatly expanded the ways in which lasers could be used. This led to their current status as not only the key to all fiber optic communication systems, including voice and data

> networks, but as the enabling technology of millions of instruments, DVD players, and a host of other devices.

Not one of the war-winning technologies funded by DARPA was employed for the purposes first envisioned by the Defense Department. And no one in DARPA or the laboratories developing these technologies foresaw their transformative impact on the civilian economy. Private entrepreneurs adapted the technologies that arose from defense research with remarkable speed. CMOS chip manufacturing was invented in 1963 at Fairchild Semiconductors, and the first CMOS chips were made at RCA Labs in 1968 under contract from DARPA. The first practical personal computers were on the market by the mid-1970s, and, by the 1980s, the personal computing revolution was in full swing.

American technological advances gave America an unequalled edge in military as well as civilian technologies, and America dominated world economic life to a degree not achieved since the highpoint of the British Empire during the nineteenth century. Fast and cheap computing, optical data transmission, sensing, imaging, CAD/CAM manufacturing—all the technologies that have defined the economy of the past thirty years—were products of America's drive to win the Cold War.

New Challenges to American Technological Superiority

Conservative critics frequently compare the Obama administration to the Carter presidency by arguing that the United States experienced a decline in world influence under both presidents.[4] In terms of defense fundamentals, however, the Obama presidency was incomparably worse. America's edge in defense technology has eroded and even fallen behind its prospective adversaries in critical areas. Federal research and development spending has dropped to barely half of its 1978 level as a proportion of GDP. The national laboratories are hollowed out, and the major corporate laboratories (at IBM, the Bell System, General Electric, and RCA among others) that contributed significantly to defense R&D during the Cold War no longer exist. Within the shrinking defense R&D budget, a disproportionate share has been squandered on the F-35, a poorly conceived and executed weapons system with the highest price tag in defense history.

FEDERAL R&D SPENDING AS % OF GDP

Source: National Science Foundation.

America remains the world's strongest military power, but select Russian and Chinese advances already limit America's strategic freedom of action. Russia's S-400 air defense system, for example, can acquire one hundred separate targets at distances of up to 400 kilometers. The deployment of the S-400 in Syria, moreover, made short work of American proposals for a no-fly zone in that country. U.S. commanders are not willing to risk stealth aircraft within the range of the S-400 because we do not know how close the Russians are to defeating stealth. The consensus view is that Russia cannot defeat stealth yet, but they may be able to do so in the not too distant future.[5]

Russia has already agreed to sell the system to China, which means that China could sweep the skies above Taiwan. China has two weapons systems that may be able to sink American aircraft carriers, the Dong Feng 21 surface-to-ship missile and the Type 039A diesel electric submarine, which is now virtually undetectable when running on battery power. Whether it wants to or not, America cannot deny China access to the artificial islands it is constructing in the South China Sea. It may be in no position to defend Taiwan.

Many military breakthroughs—such as Israel's Iron Dome missile defense system—depend on the quality of algorithms and the speed of computation rather than on changes in hardware. Defeating stealth is mainly a matter of computation (enhancing a small radar footprint quickly enough to acquire a target). At present, China has the world's fastest and second-fastest supercomputers, made entirely with domestically produced integrated circuits.[6]

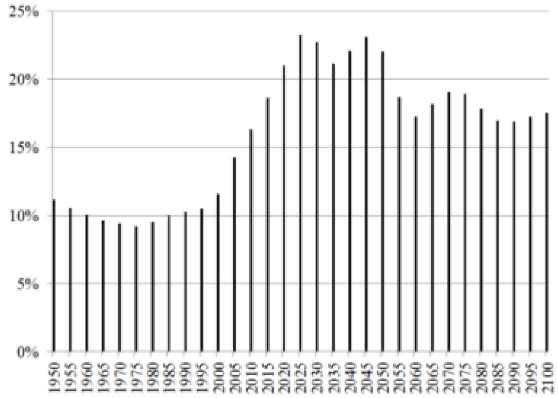
Although China's military industry in many respects remains a generation or more behind its U.S. counterparts, China has made advances in technologies that represent a strategic threat to the West to which the United States has no obvious countermeasures. These developments include satellite-killer missiles and hypersonic weapons delivery vehicles.[7] China has also ventured into experimental areas ahead of the United States in some key fields. Professor Michael Raska reported on China's launch of the world's first experimental quantum satellite, Micius, in December 2016: "While the Quantum Science Satellite will advance research on 'quantum internet'—i.e. secure communications and a distributed computational power that greatly exceeds that of the classical internet, Micius' experiments will also advance quantum cryptography, communications systems, and cyber capabilities that the China's military requires for its sensors and future strike systems."[8]

There is no single, decisive, dramatic breakthrough in China comparable to Russia's 1957 launch of the first orbital satellite or the first manned space flight in 1961. Instead, there has been a steady accretion of technological advantages that, combined, pose a threat to American strategic superiority over a ten- to twenty-year horizon. It is important to understand how touch-and-go America's position was at many junctures of the Cold War and the determination and commitment of resources that were required to restore America's technological advantage at moments when it was in jeopardy.

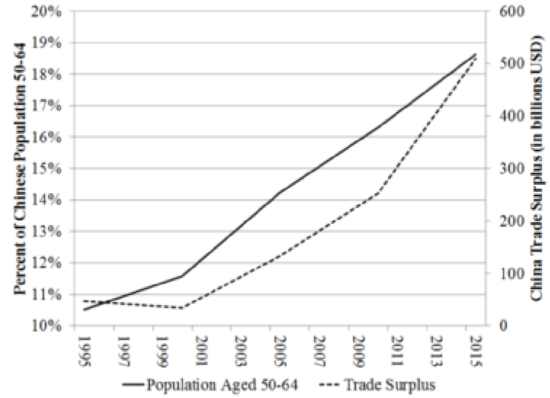
The Real Chinese Threat

The way to lose the next war is to fight the last war. China's trade surplus looms large as a challenge to American prosperity. For reasons that have nothing to do with American policy options, China's trade surplus is likely to diminish gradually over the next ten years. The Nobel Prize–winning Professor Robert Mundell, the father of supply-side economics, showed (along with other economists) that chronic trade imbalances stem from demographic shifts. Old people lend to young people, and countries with aging populations lend to countries with younger populations. They acquire the savings to be lent by running current account surpluses.[9]

Percentage of Chinese Aged 50-64



China Trade Surplus and Savings Need of Aging Population

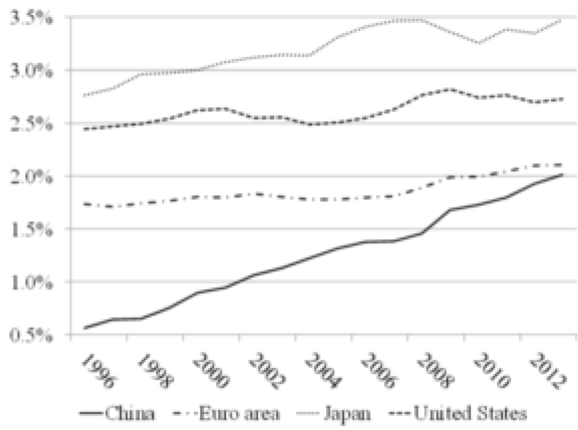


China's enormous trade surpluses coincided with the rapid aging of its population.
Sources: United Nations Population Prospects, St. Louis Federal Reserve FRED database.

A proxy of national demand for savings is the percentage of the population approaching retirement age. In China's case, the demographic cohort aged 50 to 65 years will double between 1995 and 2020. After 2020, China's rate of aging and demand for savings will level off.

As China's demand for savings tapers off during the next decade, its trade surplus should gradually fall. This trend is consistent with Chinese policy, which seeks to shift the economy away from dependence on exports to domestic consumption—that is, to increase consumption and reduce savings. This shift is perhaps the most commented-upon policy change in the world economy today.

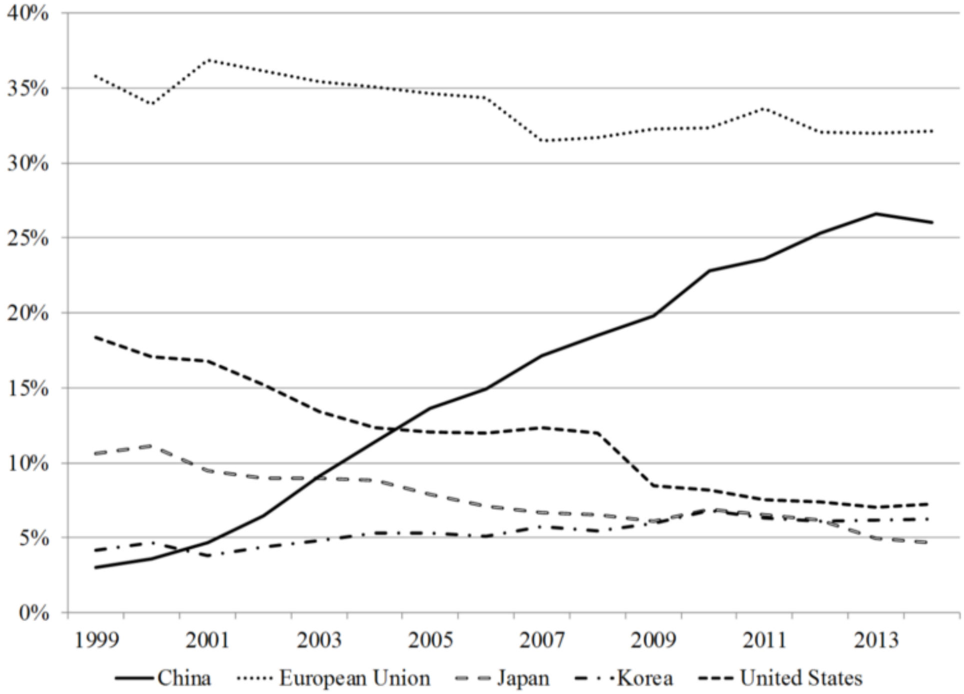
R&D as % of GDP



Source: World Bank.

Higher consumption implies a lower trade surplus. But that, unfortunately, is not the end of China's economic challenge to the United States. On the contrary: that is where China's challenge to the United States will begin in earnest. Going forward the issue will not be the quantity of Chinese exports but their quality. The old caricature of the Chinese economy of a cheap-labor, pollution-spewing throwback dependent on stolen technology contained a good deal of truth a decade ago. But a radical transformation is already underway that has led to Chinese dominance in high-tech exports, as defined by the World Bank. In 1999, China's share of global high tech exports was only 3%. In 2016 its global share rose to 26%. America's share fell from over 18% to just 7%. China's R&D spending has already reached the level of Europe as a percent of GDP.

Share of Global High Technology Exports



Source: World Bank.

High-tech industrial production has been shifting away from the United States since the late 1990s. Until then, America ran a substantial surplus in high-tech goods. In the early 2000s, however, that surplus turned into a deficit, which is likely to exceed $100 billion this year.

Most of America's trade deficit in high-tech goods consists of technologies invented in the United States, often supported by federally funded research sponsored by the Department of Defense and NASA. The seven technologies listed below constitute the basic elements of all modern electronics from computers to smart phones; in each case, their manufacture has migrated to Asia because Asian governments adopted the formerly American practice of supporting basic R&D. The economic benefits of the digital revolution that originated in the United States have shifted to Asia. America's share in the manufacture and distribution of its own inventions is relatively small.

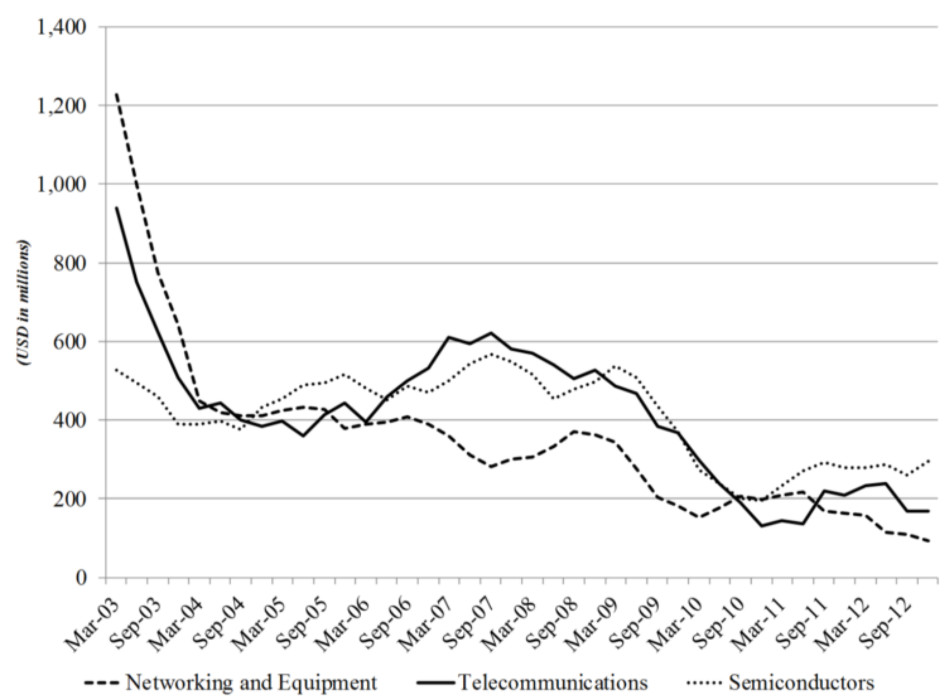
The core digital technologies include the following:

1. Liquid crystal displays, which are employed in a wide variety of products, with $100 billion in annual sales. South Korea controls 35% of the market, Taiwan 25%, and China 20%.
2. Light-emitting diodes (LEDs) are produced mainly in China and Taiwan.
3. China and Taiwan dominate the production of semiconductor lasers, the energy source for fiber optic communications.
4. Solid state sensors, which generate images in digital cameras and related devices, are produced mainly in Taiwan and Japan.
5. Flash memory is produced mainly in South Korea, Japan and China, with only 10% of world output coming from the United States.
6. Integrated circuits are a $270 billion global industry. Most are produced in Taiwan and South Korea, and China has undertaken an aggressive investment program in the industry. Less than a quarter of world output is produced in the United States.
7. Solar energy panels, a $30 billion industry, are dominated by China.

Venture capital commitments to the manufacturing industry have collapsed because American investors do not believe that American industry can stand up to Asian competition. Some of the Asian advantage is the result of the theft of intellectual property, but most of it stems from above-board collaboration of government and industry. Asian countries have licensed U.S. technologies and supported joint ventures with American companies in order to foster technology transfer, and they have made cheap capital available to their high-tech industry. Asian governments also have supported technical education. China now graduates twice as many STEM Ph.D. candidates as the United States does each year.

America developed many of the high technology products that are built by Asian manufacturing. But Asian dependence on American technology is starting to diminish. China's flagship high-tech manufacturer, Huawei, now employs tens of thousands of engineers, including thousands of Western researchers in several centers in Europe. A decade ago Huawei was regularly accused of stealing Western technology; now it is a vigorous defender of intellectual property rights, because it is heavily committed to innovation of its own. Huawei now spends 14% percent of gross revenues on R&D, more than Microsoft and the same level as Google.[10]

VENTURE CAPITAL INVESTMENTS IN MANUFACTURING



Source: National Venture Capital Association

A New R&D Policy Agenda

Is it too late for American high-tech manufacturing? No, but drastic policy changes are required. Tax incentives for exports and tax disincentives for imports may not be sufficient to turn the tide of Asian dominance. In many instances, the entire supply chain for tech projects has relocated to Asia, which leaves American manufacturers overwhelmingly dependent on Asian production for imports. The simplest and most direct response would be to require domestic production for all sensitive defense-related goods, including all computers, displays, integrated circuits, sensors, and other high-technology equipment used in defense applications. In other words, for certain important categories of security-related manufactures, the tariff should be infinite. This is the only reliable way to ensure that American manufacturers will bring production, including critical parts of the supply chain, back to the United States.

Russia's head start in the space race elicited a national effort to keep American technology in the forefront in the late 1950s and early 1960s. The very real possibility that Russia might triumph in the Cold War motivated a comparable effort in the early 1980s. We need the same sense of urgency today. We have no guarantees that America will retain technological leadership. Britain dominated world industrial production in 1870 with a third of total global output, but fell to a seventh of the world total by World War I. In 2010 China edged out the United States to become the world's largest goods producer, with a fifth of the global total.

Russian and Chinese advances in air defense, missile technology, submarine warfare, satellite interdiction and other critical areas pose a set of scientific problems comparable to the ones that DARPA addressed during the 1960s through the 1980s. Targets for future scientific research should include (but of course are not limited to):

1. Defeating the current generation of Russian air defense systems
2. Enhanced use of drones in place of manned aircraft
3. Hardening of satellites against prospective enemy attack
4. Cyber warfare
5. New physical principles in computing (e.g., quantum computing)
6. Quantum communications and encryption
7. Detection of ultra-quiet submarines (the present generation of Chinese diesel-electric boats are practically undetectable, and submarine drones could be used to deliver nuclear weapons to coastal cities)
8. Detection and defeat of the next generation of hypersonic missiles
9. Countermeasures against anti-ship missiles (rail guns, laser cannon)

America succeeded in the Cold War because of "long ball" rather than "small ball" research and development. Corporate R&D usually must be justified by relatively short-term improvements in revenues. Investigation of new physical principles cannot typically be justified by corporate planners. That is why military R&D plays such a unique role; to win wars, the United States has had no choice but to push the envelope of physical knowledge.

Federal R&D Spending and Productivity Growth

By one measure, the growth rate of labor productivity, the American economy is in its worst shape since the stagflation of the 1970s, and there is a close relationship between federal R&D spending and productivity growth. The chart below shows the annualized growth in productivity over five-year intervals against the annualized change in federal R&D spending. It is noteworthy that productivity growth tracks federal rather than overall R&D spending. That is because research that leads to fundamental breakthroughs is more likely to be funded for defense and aerospace needs. "Long ball" R&D typically involves strategic objectives, while private R&D focuses on "small ball" requirements with specific product goals in sight. In many cases, federal R&D has led to innovations with enormous economic consequences that were completely unforeseen by the original sponsors; this is the nature of frontier research.

The notion that defense and aerospace R&D fosters economic growth is not new. In 1976 NASA released a study by Chase Econometrics stating that if a "sustained increase in NASA spending of $1 billion (1958 dollars) for the 1975–1984 period" were implemented, then "constant-dollar CNP would be $23 billion higher by 1984," versus a baseline of no increase in expenditures.[11] Even so, conventional methods of economic estimation cannot begin to assess the revolutionary impact of breakthrough technologies on American productivity, because these technologies radically changed what economists call the investment opportunity set—the basic constituents of the economy itself. The civilian use of these defense technologies vastly outstripped the original objectives of their government sponsors. The demands of American defense pushed scientists to discover new physical processes, among them solid-state semiconductors, and these discoveries transformed economic life.

The challenges to American growth and productivity today are arguably even greater than they were when Jimmy Carter left office in 1981. Consider the following:

1. America's population is aging rapidly: 15% of the total population will be 65 or older in 2015, rising to 20% by 2030.
2. America had little foreign competition as a venue for entrepreneurial startups in the 1980s: the world's capital and talent had nowhere to go but the United States. Now there are numerous competing venues for technological entrepreneurship.
3. Several rising Asian powers, particularly China, have acted aggressively to close the technology gap with the United States, and they have leapfrogged American manufacturing in a number of key industries.
4. Federal debt was only 30% of GDP in 1979 (not counting unfunded entitlements) but rose to 110% in 2015.
5. Obstacles to growth at the end of the Carter administration—a 70% top marginal tax rate and an inflationary monetary policy—were easier to identify and remedy than contemporary challenges.
6. America's backlog of productivity-enhancing technologies has shrunk, in large part because defense R&D is half of what is was in the late 1970s relative to GDP.

Economic growth depends on technological innovations, and entrepreneurs who take risks to commercialize them. Absent innovation, entrepreneurs will find other things to do, such as designing new financial derivatives. But technological innovation will have as little impact as gunpowder and the movable type had on the medieval Chinese economy unless entrepreneurs plunge into the chaotic, disruptive work of commercializing these technologies.

Creating Unintended Consequences

Federal R&D is effective not merely because it is federal, however. On the contrary, governments frequently waste R&D funds on white elephant projects such as Solyndra, the California-based solar power venture that defaulted on a $535 million U.S. government loan. The F-35 and other poorly conceived acquisition programs also absorb large amounts of R&D funding. In contrast to these incremental projects, R&D that is focused on game-changing breakthroughs is the most productive. And the technological innovation it makes possible becomes truly transformative only when entrepreneurs effectively commercialize it. Kennedy's moon shot and Reagan's Strategic Defense Initiative had such lasting economic reverberations because they were accompanied by tax cuts and regulatory relief that made it easier for entrepreneurs to capitalize on basic scientific innovations. The Trump administration has already proposed aggressive fiscal and regulatory measures to improve incentives for investment. Neither innovation nor investment alone is enough, however; the innovations must turn into investment and employment in the United States.

PRODUCTIVITY VERSUS DEFENSE R&D SPENDING (5-YEAR CHANGE)

Sources: Commerce Department Bureau of Economic Analysis, National Science Foundation.

There is a clear division of labor between the public sector and the private sector. Few if any of the game-changing inventions of the 1950s through the 1980s would have emerged—or emerged as early as they did—without federal R&D funding. Once the technology is invented, though, private investors must bear the brunt of the risk. Conventional industrial policy is the worst approach. It allows bureaucrats to create vested interests in existing industries, and it creates incentives to suppress new technologies that might threaten investments undertaken by political cronies. There is a strong case, however, for using government funds to seed new companies that can develop innovative technologies. In an ideal world, the venture capital community would assume this function. But in the real world, the requirements of defense R&D and production require public funding.

The unintended consequences of federally sponsored R&D vastly exceeded the expectations of the projects' initiators. The economic spinoffs of the technologies invented for urgent national security reasons had incalculable impacts on growth and productivity. None of this could have been pre-programmed. Innovation is unpredictable by definition. The greatest lesson we can draw from both the Kennedy space program and the Reagan Strategic Defense Initiative is that the most productive investments are the ones that test the frontiers of physics. These projects enabled us to fight the next war, not the previous one.

Unlike the Russian space flights of 1957 and 1961, or the success of Russian air defenses in the Yom Kippur War, we can point to no single development to provoke a "Sputnik moment." Like a frog in a pot of cold water, we do not notice the gradual increase in temperature. Circumstances nonetheless demand a sense of urgency comparable to that experienced at the peak of the Cold War. We can leapfrog our competitors. Or we may suffer the fate of a boiled frog.

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Notes

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[2] Bob Work, "Remarks to the Air Force Association," Sept. 21, 2016, https://www.defense.gov/News/Speeches/Speech-View/Article/973907/remarks-to-the-air-force-association.

[3] David P. Goldman and Henry Kressel, "Prosperity, Security and Markets," *American Interest*, Oct. 10, 2013, http://www.the-american-interest.com/2013/10/10/prosperity-security-and-markets/.

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[7] See Office of the Secretary of Defense, "Annual Report to Congress: Military and Security Developments Involving the People's Republic of China 2015," https://www.defense.gov/Portals/1/Documents/pubs/2015_China_Military_Powe

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[10] See "Huawei Reports Revenue of CNY395 Billion in 2015," April 1, 2016, http://www.huawei.com/en/news/2016/3/huawei-reports-revenue-of-cny395billion-in2015.

[11] Michael K. Evans (Chase Econometrics), "The Economic Impact of NASA R&D Spending," April 1976, https://ntrs.nasa.gov/archive/nasa/casi.ntrs.nasa.gov/19760017002.pdf.

The New Silk Road and the Return of Geopolitics

HERVÉ JUVIN JANUARY 15, 2016

> *"With strong roots, plants will grow. With right approach, people will succeed."*
> *—Yang Jiechi, Director of the CPC Central Foreign Affairs Commission Office, July 2018*

The grand design came in 2013 from President Xi Jinping himself. The goal was to launch the project "One Belt One Road," or OBOR, across and around Eurasia, and to ensure mutually beneficial cooperation among all participating countries. At the time, the announcement of OBOR received little if any attention from European observers, distracted as they were by the difficulties of emerging from the euro crisis and the foreign policy challenges of Iran and Russia.

But turning a blind eye to China's projects was never a worse idea. During the last five years, thousands of miles of railways have stretched from east to west across the European continent; millions of tons of concrete have been poured; some 4,500 high-speed trains have been constructed in China; deep-sea harbors have welcomed containers from China, and the battleships of the Chinese People's Liberation Army as well, in places where they had never been seen before. Thousands of companies, from Turkmenistan to Ireland and from Germany to Serbia, came to see the OBOR project as a major opportunity for trading and development.

At the Heart of the Eurasian Project

The first Belt and Road Forum for International Cooperation hosted by President Xi in May 2017 attracted participants from 140 countries and 80 institutions—because it was, quite literally, on the way. Sixty countries actually have participated in the project, developing increasing links towards China, but also toward other Eurasian countries on a subregional scale. Some amazing results have already been achieved: in Uzbekistan, for instance, it used to take four or five days of difficult driving across rough mountain passes to travel by land from the capital Tashkent to the Andijan region, where about one-third of the population lives. But Chinese construction firms found a way under the mountains and helped build a railway tunnel in just nine hundred days. It is now an easy four-hour trip between the capital city and the Andijan province, according to Le Yucheng, China's vice minister of foreign affairs.

In Henan province, the cradle of China's empire and civilization, cities like Zhengzhou and Luoyang have been transforming at this breathtaking pace for decades, from provincial cities laden with memory to new Eurasian hubs with tremendous dreams. I was there at the end of October, on the invitation of the Chinese Embassy in France.

Zhengzhou is one of the most ancient cities of the Henan region, the heart of the central plain, whose nearly ten million inhabitants, five years ago, made their city one of the main ports of entry on the Silk Road at the request of President Xi Jinping.[1] At the railway terminal of Zhengzhou in the China (Henan) Pilot Free Trade Zone, one freight train leaves for western Europe every day, and one arrives from western Europe—from as far away as Liverpool or Luxembourg. (The online trading platform for Zhengzhou-Europe unit trains started operations in December 2015; the regular operations of the cross-border e-commerce platform began operations in January 2016.) In the gigantic automated warehouses where samples of anything coming from the west are stored, one can find boxes of milk for children from Ireland, cheese and gifts from the Netherlands and Italy, mechanical tools and supplies from Germany, wines and gifts from Serbia and Georgia (French wines are, by some extraordinary privilege, strictly limited to Cahors). A strong sense of a new geopolitical unity impresses itself on anyone who watches, on a giant screen, the two railroad networks coming from Liège, Cologne, or Berlin, either by way of Poland and Smolensk on the northern route, or across Bucharest, Baku, and Almaty by the southern. Outside, thousands of Chinese-made cars are awaiting the next train, sandwiched between the buses and tractors that are internationally acclaimed specialties of the city's factories (Yutong is a well-known brand of buses, even in western Europe).

The freight using the railways is just a small part of the six trillion dollars of trade between China and other participating countries. But rail freight transport is increasing at a fast pace, and for an obvious reason: it takes just six to eight days for the freight to cross the Eurasian continent by rail, while it takes up to three weeks to travel by sea, and even longer from the far hinterland of Eurasia. Reaching a deep-sea harbor from the heartland is easier said than done, after all. Railway is better suited for perishable goods, in limited quantity, and much more flexible than some of the monstrous container ships. And it offers an opportunity for small and medium-sized enterprises to reach the Chinese market at a low price; thus far freight has come abundantly from China, but less so from western Europe to China.

Of course, with hard infrastructure like railways, tunnels, and roads comes considerable soft power. The Confucius Institutes are never far from Chinese investments, and neither are diplomats and scholars. Banks and investment funds closely follow on the new Silk Road. Chinese investments in OBOR-participating countries rose to seventy billion dollars in 2018, and the Chinese development banks claim that more than two hundred thousand jobs have been created. Chinese authorities have also emphasized the new opportunities opened by OBOR for countries in search of partners. Rather interestingly, Germany is by far the chief partner of OBOR in western Europe, with a contribution of about 21 percent to this trade, while Great Britain and Italy are doing well with about 11 percent each. France, by contrast, lags far in the distance, comparable to Serbia or Switzerland, each at about 2.5 percent.

Railways, highways, and airports, mainly to western Europe, are intended to be one aspect of the project. A second set of connections may be even more exciting. Also known as the String of Pearls, it effectively encircles India—and a little bit more. Africa and even Latin America are considered legitimate parts of the Silk Road Economic Belt. One Belt One Road thus forms an unlikely memorial to, of all things, the first giraffe to reach the Celestial Empire—which came from Mombasa in the fourteenth century, carried by one vessel belonging to the flotilla commanded by the great admiral Zheng He—which was considered a blessing from the gods to the emperor.

Visiting Sri Lanka, as I did three years ago during Maithripala Sirisena's successful presidential campaign against the Chinese-aligned candidate Mahinda Rajapaksa (also supported by India), one could not but be impressed by the ubiquity of Chinese activity, especially near the deep sea port of Hambantota, eighty kilometers south of the capital city, Colombo. But more is to come. Mainly designed by the Chinese, a huge new port area called Port City, with some 2.6 square kilometers taken right from the Indian Ocean, is on the way in the heart of Colombo, across from the historic Galle Face Hotel. An estimated influx of eighty thousand people is expected in the next five years, along with the biggest foreign investment ever in the troubled Sri Lankan economy. How Sri Lanka will repay the loan is another question—and a question for Pakistan, Afghanistan, and many others.[2] The port will offer a new hub for the Indian Ocean, for those ships which don't want to go up north to the other major Chinese harbor, under construction in Pakistan.

And let us go west. For the sake of fighting piracy, the Chinese army took a strong hand in the area near Djibouti, positioning both naval and ground forces there, and with a sharp eye to the fishing rights in the prosperous waters of the Red Sea. In addition, Djibouti is close to handing over to China the Port of Doraleh, giving it its first base in the Red Sea (as John Bolton correctly pointed out in a speech given to the Heritage Foundation on December 13, 2018). Some agreements are said to have been signed with Sudan and Eritrea as well. In the deep south, China is actively working on Mozambique's canal (with Mauritius and France's Réunion territory in sight), but mainly seeking the natural resources of Madagascar—rosewood, palisander, and other precious wood, taken directly from what is left in the formerly magnificent "national parks."

In western Europe, Chinese ships have a safe harbor in the Greek port of Piraeus—one of the little-known "successes" of the debt crisis managed both by the European Union and the IMF. On the request of its creditors, the heavily indebted Greek government had to sell some of the most valuable assets of the country, and guess who was a convenient buyer? A similar scenario is about to reach a happy end with a heavily indebted Italy dealing some of its ports and facilities to Chinese investors: a general agreement is supposed to be reached soon, on the request of Luigi Di Maio, Italy's deputy prime minister. For the same reasons, Portugal was about to sell its main phone network to Chinese investors. China is widely seen as an excellent ally in the quest to push out an invasive and uncompromising European Commission.

To the north, the Chinese naval forces are actively working on the northeast passage, a reason why they have taken so much interest in Ireland and Denmark.[3] Add to this landscape the building of a second Panama Canal across the equator—designed, financed, and built by Chinese companies—and the big picture comes into view: as the United States is beginning its strategic pivot to Asia, China is beginning its pivot to the world. China's navy is even becoming a part of the Mediterranean playground. Just ten years ago, who could have predicted that?

All these deep-sea harbors and logistics platforms leave a huge physical footprint on local and regional economies and populations. The financial footprint is significant, as well. The China-Pakistan Economic Corridor represents loans and investments of some $62 billion. For many countries of eastern Europe and central Asia, China has recently become both the first investor and the first lender. Serbia and Azerbaijan are among them, with numerous worries lingering about their ability to service the debt, or whether they might have to sign over national treasures—mines, factories, fertile land—to pay the debt. In a few years, both the China Development Bank and the Asia Infrastructure Investment Bank, the Shanghai Cooperation Organization, and the Russian-led Organization for Central Asian Cooperation have taken a very strong position as a regional alternative to American-led international institutions such as the World Bank and the International Monetary Fund.

In addition to these financial and industrial imprints, there is an increasingly significant digital one. The Silk Road is a strange animal, with at least three legs—and the third leg is the soft power arising out of the other two. OBOR comes with common rules and systems to make things work smoothly all along the railways, highways, harbors, and airports of the Silk Road. It comes with common rules to manage, secure, and dispatch the freight; common rules to organize traffic, signals, and logistic conveniences; and common rules for teams of workers making things happen—from drivers to road contractors to tunnel diggers. It comes with Chinese security officers, lawyers, engineers, and designers embedded in the local teams of their counterparts. It comes also with the Chinese language spreading along the way, with Confucius Institutes following the Silk Road's great opening, with the spreading of the "Chinese Dream" for the century, and also with contracts and agreements according to Chinese legal practices and behavior. Along with this soft power, a "digital Silk Road" is being built—the use of Chinese protocols, Chinese algorithms, and Chinese data centers, as well as cellphones from Huawei or ZTE, servers from Alibaba or Tencent, and financial and banking platforms managed from China with the renminbi as the new standard. This global design is, for better or worse, one of a ubiquitous China—a new China whose own playing ground is the world itself.

One of the most impressive pictures of the "Chinese dream" came to me during my first visit to the Shaolin Monastery, where some sixteen thousand students were training in the strictest fighting discipline of kung fu. A very strong mix of ancient culture, old martial techniques, and new management and educational tools mixed together to shape an indomitable commitment to win. For a Western observer, it is not insignificant that many religious devotees of the old Chinese fighting disciplines exercise every day with the top members of the PLA Special Operations Forces.

New Vision or Old Empire? The Stakes for Europe

Something larger is also happening at the heart of the Eurasian continent: it is the first time since the great invasions of the Mongol Empire, and after them the Muslim Caliphate, that land routes are open for trade between the Far East and the "far west" of Europe. The extraordinary trips of Giovanni da Pian del Carpine or Marco Polo between western Europe, the Mongol tents, and China could not have been achieved after the fourteenth century. By that point, Muslim rulers had cut the land routes to the infidels and firmly established, for four centuries, a trade monopoly on the old Silk Road.

Those who favor the geopolitical strength of the Eurasian continent have strongly emphasized the global benefits of a project which aims to give Europe the means of its independence against the so-called *puissances de la mer*—the powers of sea trade, Great Britain and the United States. Sir Halford Mackinder wrote some decisive essays on the opposition between "heartland" and "rimland," and it is clear that the twenty-first century has not forgotten these geographical issues. They are back, with unexpected consequences.

Till now, the project has been about trade and development. But everyone can see the geopolitical issues playing out behind the curtain. OBOR could be a project of closer relationship between all the participants, bringing along with it new perspectives for the European Union, the former Soviet Republics of central Asia, the Balkans, and, last but not least, Russia. Could it perhaps be a distant consequence of the fall of the Iron Curtain dividing Europe between its western and eastern parts? Could it not also be a kind of reaction to the "pivot to Asia" in U.S. foreign policy, so deeply felt in some European think tanks and institutions, not least NATO?

On a warm Sunday in late May 2017, a very confident Angela Merkel told an assembly of her party, "The times in which we could rely fully on others—they are somewhat over."[4] She is among those who are progressively turning their political hopes and expectations away from the western Atlantic zone to the eastern continental zone and, eventually, as far as the Pacific Coast. From sea to land, the shift of power is one of tremendous importance and of uncertainty.

OBOR's potential to divide the West has long been underestimated, but that is a mistake no one can make any longer. And it is increasingly provoking criticism from the United States and its allies, from India to Great Britain. The future of the Eurasian continent is at stake now, and many more issues are subject to new questions.[5]

There is a vision behind One Belt One Road, and there is a will. There is an opportunity as well, created by the civilizational decay of the European Union and the emptiness of Western strategy. Because One Belt One Road works, it attracts partners. Furthermore, it represents a real and consistent opportunity for European countries stuck in the "high debt, low growth" trap, and it is quickly growing.

Throughout the world, OBOR is a global network of multidimensional relations, and the informational dimension must not be underestimated. At the very heart of the project lies the goal of broadcasting a Chinese voice and making the Chinese worldview more palatable for the global community.

Taking in the whole picture, it becomes obvious that OBOR involves African resources and needs, and even South American ones, as well (just have a look at Chinese investment in Brazil). An indebted Zambia is close to selling its major state enterprise to China, to secure a $10 billion debt. The same is true for some other countries in Africa and eastern or southern Europe. China's benevolence offers a welcome escape from the strict budgetary discipline of the IMF or, in Europe, German rule. A new global power is advancing softly but quickly behind the OBOR project and its increasingly global reach.

Facing such a project, what are the expectations, fears, and hopes of the main powers involved? The so-called trade war between China and the United States has attracted a lot of fears and threats since fall 2018, particularly after the United States temporarily imposed trading bans on ZTE, along with the spectacular arrest of the CFO of the Chinese telecom giant Huawei in December 2018, under suspicion of breaking U.S. sanctions against Iran. The trade war sheds light on issues of growing concern for U.S. and other western government agencies: How can we deal with the new Chinese tech giants? How can we rein in European countries that are searching for new visions—and, perhaps, new allies?

Last November, former Treasury secretary Hank Paulson delivered a speech about the growing dominance of "supertech China." He emphasized the digital leg of the Silk Road, which, he said, seeks to impose China's cybersecurity standards in every participating country (for obvious reasons), and to softly introduce a kind of dependence on China's interests and legal framework. He judged that the U.S. attempt to change China's behavior in commercial practices and intellectual property had been a "miserable failure," and warned about an "economic Iron Curtain" beginning to divide the world. He then advocated a "Cold War–style technology denial" strategy against China. (The amusing image that comes to mind in some European countries is that of the "Echelon" system and the NSA's meddling in European internal affairs, even spying on Angela Merkel's private phone.) It is interesting to observe that the usually shy chief of Britain's MI6, Alex Younger, speaking at his old University of St Andrews in early December 2018, gave British students the same message. He warned them about the use of Chinese-made electronic devices, even cellphones, and questioned the ability of Chinese providers to cope with the security requirements of the British government. He described the digital industry as a key used by China to enter banking, financial, and information networks and, at the end of the day, to influence the formation of public opinion itself.

The fear of a Chinese strategy aimed at global media dominance, widely spread by U.S. and British media, helps to inculcate in European and American citizens a certain hostility to China and to emphasize the threat coming from China's soft and smart power push. It is all too easy to warn of the "yellow threat" in order to unite Western people in disarray against the craftiest enemy. For an outside observer such as myself, it is more than a little amusing to read so much about Chinese propaganda (and, of course, Russian propaganda) and so little about the U.S. propaganda machine, by far the largest in its class. And the threat now is widely seen as arising from the well-known Thucydides Trap—the inevitable conflict between a growing power and a declining power, like that between Sparta and Athens during the fourth century BC.

The prospect of commercial conflict, however, remains uncertain. Some European countries are following U.S. requests closely, already closing their markets to Huawei or ZTE and putting up barriers to entry to Chinese money, Chinese goods, and Chinese high-tech services. They share the U.S. administration's concern (and that of John Bolton in particular) that China and Russia's push in Africa, central Asia, and even South America is undermining the national interests of Western countries. Nevertheless, the unilateralism of the United States can only be accepted with caution—especially when a strong assertion of European nationalisms is on the way, with loud acclaim from President Trump himself. More and more countries around the world will not be able to help experiencing American unilateralism as an aggression against their free will, a denial of national sovereignty, and a serious cause of global trouble. Another question will soon emerge, as well: does cutting relations with China and trying to isolate it mainly harm China or, given the present shape of the world economy, would it do more harm to the interests of U.S. and European corporations?

A New Model of Globalization

Today, the fate of globalization seems to be at stake, along with the end of the "easygoing" ideology behind it. These are troubling and confusing times for a lot of Europeans. Many have come to believe that the system of "no border, no tariff, no nation" has failed miserably. Some European countries have not yet recovered from the 2008 financial crisis. A growing number of European leaders, from the Brexiteers in England to Viktor Orbán in Hungary and Matteo Salvini in Italy, tell another story to their constituents. According to them, the future will put an end to the fairy tale of globalism, free trade, and open-borders ideology. They repudiate globalism as a common hope; they see it as a common threat—the path to a new subordination and a step toward colonization. They mostly agree with Donald Trump that a country without borders is a vanishing entity, and that the price for free trade cannot be the free will of the people itself. They also agree that nationalism is the living force of free nations and that national interests will decide the future.

At the same time, other Western leaders, many in business and universities but also in the leading countries (like French president Emmanuel Macron), still stand firmly within the narrative of the 1990s—the triumphant globalist talk and the unbreakable faith in free trade and open commerce. They still imagine the future as it seemed in the not-too-distant past. They have been saying for many years that concern about the national origins of any product is illegitimate. Everything is simply "made on earth by humans";

everywhere, went the slogan, we can find "the same people doing the same jobs and searching for the same performance." The digital age was supposedly driving everyone toward a borderless, limitless world. And from this standpoint, why should it be a problem to deal with China, and to welcome railway stations, harbors, and highways from the OBOR project? Why should it be a problem to buy China's products and services, to borrow from Chinese banks, and to expect a better future benefiting from the Chinese demand for Western brands?

Yet, in a strange irony, some of the strongest defenders of globalization have become the most vocal critics of China's growing willingness to reshape the world order. What will happen, they ask, if China wants to control or monitor companies—and even countries—which have become dependent on China's economic strength? What will happen if China uses its power to reshape global political institutions? They fear the return of geopolitics, of the struggle for power, influence, and wealth, and the disappearance of the world as an open market. This 1990s vision now seems inescapably trapped between Western "populist-nationalists" on one side and Chinese ambitions on the other.

Meanwhile, political confusion in the United States has not helped Europeans who want clear answers on free trade, transcontinental relationships, and dealing with China. Unpredictability and uncertainty in U.S. foreign policy have left European leaders unprepared and unable to cope, especially vis-à-vis China. They felt oppressed by the "hyperpower" of the United States, but they are lost without it.

The heart of the issue lies here: from NATO to OBOR and the European Union itself, Europe has come back into history. Mercantilists or nationalists, federalists or populists, all of them seem to agree on one point: the European Union is engulfed in the end of "the end of history" and the fear of the end of the Union itself. They share a growing concern about the decay of existing international institutions, from the WTO to the UN, from NATO to the World Bank, each growing increasingly irrelevant though not definitively out of the picture. The lip service paid by China to traditional institutions is not an answer: China both enforces its presence in all these institutions, and at the same time carefully builds institutions on its own initiative with close allies, which eventually could become strong pillars of a new world order—a Chinese one.

What will happen? It will be very surprising if some dramatic events don't occur to interrupt, delay, or destroy some parts of the OBOR infrastructure. In the current trend of growing tensions between the two superpowers, anything could happen. OBOR will increasingly become a divisive issue, one of intractable opposition and harsh judgments. We will witness both covert and open actions to prevent countries or companies from dealing with China and participating in the OBOR project, as well as covert and open operations to disrupt, delegitimize, and condemn any involvement in it. Land routes are very easy to close or at least to threaten. Every oil or gas company is well aware of the political risks facing any land pipeline. The same is true for railways, highways, even airports. "Accidents" may occur, and the threat of conflict, for instance in the Balkans or central Asia, cannot be dismissed.

This is a nightmare for European countries, heading toward a multipolar world and having to make a choice between dependence on the United States or colonization by China. Different pressures will affect the countries and companies most engaged with China's network of trade, finance, information, and intelligence. Indeed, they already do. Would an isolated China be more disruptive? Or is growing global dependence upon China a greater risk?

Indeed, we are at the end of the former Western world as we know it. The world is not becoming another Europe, nor a global America. Something different is taking place. With all the know-how, tools, and technologies that they have acquired, mainly from the West, China is building something different. The old dream of the 1950s, "growth brings peace," is irrelevant, mainly because of the massive impacts of economic growth on the environment. And it's also irrelevant because China (along with India and Russia) is not becoming a new version of America.

OBOR is but one expression of the coming new world order slowly emerging from the great confusion of the 1990s. One cannot understand what is at stake without attending to geography, culture, spiritual needs, and the burning desire to say "We, the people." The growing complexity of an architecture of local diversity, regional integration, and international multipolarity is gaining ground steadily against the fictitious trend toward global convergence and uniformity. The question is how to manage both the diversity of human people, cultures, and civilizations, and the strong push from private, multinational corporations to flatten rules, regulations, tariffs, and all other practicalities of trade. And on this point, globalization and democracy increasingly become antagonists. For European nations and for the European Union as well, the fear of accepting a new form of subordination is never far away, especially in those eastern nations which have experienced political freedom for less than thirty years.

Far beyond commercial interests, OBOR represents the seemingly forgotten figure of political self-assertion. It carries a vision rarely seen elsewhere. It seems to be a question of "to be or not to be" for many European nations disappointed by the lack of will and vision of their own union. The future of the West is at stake, and the debate is just beginning.

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Notes

[1] On Zhengzhou, see John King Fairbank and Merle Goldman, *China: A New History*, 2nd enlarged ed. (Cambridge: Belknap, 2006). The Zhengzhou International Hub Development and Construction Company Ltd. was established on June 27, 2013.

[2] Part of the China-Pakistan Economic Corridor (CPEC), the Gwadar Port became operational in 2016. See Jean-Michel Valantin, "China and the New Silk Road: The Pakistani Strategy," *Red (Team) Analysis* (blog), May 18, 2015.

[3] Linda Jakobson, "China Prepares for an Ice-Free Arctic," sipri *Insights on Peace and Security* no. 2010/2 (March 2010).

[4] Alison Smale and Steven Erlanger, "Merkel, after Discordant G-7 Meeting, Is Looking Past Trump," *New York Times*, May 29, 2017.

China, America, and "Nationalism"

ERIC LI

"Fire and fury" were expected at the annual CLSA conference in Hong Kong in September. Stephen Bannon was to deliver a frontal assault on China—on Chinese soil—and advance the proposition that the United States and China are, or should be, engaged in an epic struggle for world domination in the twenty-first century, according to the *New York Times*.

Perhaps no one represents the "America First" ethos behind the Trump movement more than the executive director of Breitbart News. In an earlier interview, during his last days as a White House senior official, he told the *American Prospect* that "we're at economic war with China. . . . One of us is going to be a hegemon in 25 or 30 years. . . ."

In his keynote address, however, and in subsequent press interviews, Bannon said that he had "never been anti-China," and that we are no longer in the Cold War era. Although the United States and China are in a competitive relationship, they are quite capable of resolving their problems, even in the toughest case at the present time—the North Korean nuclear issue. He also paid rather strong compliments to the Chinese leadership, calling President Xi Jinping a "wise leader" and the world leader that President Trump respects the most.

Seemingly schizophrenic to many, this mindset should not have been a surprise. The "nationalist" movement that is roiling the United States is part of a paradigm shift that has been sweeping the globe. This is a reaction to the excesses of ideological "globalism" (as opposed to economic globalization) in the past few decades. While globalization simply means a world increasingly interconnected through trade, investment, travel, and information, globalism has hijacked that trend and turned it into an ideology. It envisions a world moving relentlessly toward the adoption of a unified set of rules and standards in economics, politics, international relations, and even morality. National borders would gradually lose relevance and even disappear. Cultural distinctions would give way to universal values. Since the end of the Cold War, the so-called liberal world order, led by America, has essentially been turned into an aspiration for a universal order, at the expense of national sovereignties.

The reaction against such ideological overreach is not limited to the United States or even the West. Even in the country often considered a major beneficiary of globalization—China—an approach based on national interests to foreign and economic policy has been the norm. China has long preferred an international framework in which states interact with each other based on their respective national interests rather than universal ideology. Indeed, a national-interests-based approach to foreign affairs is more likely to ensure continued peace and even cooperation with China, while the globalism of the Western elite is more likely to create tension both between and within nations.

The Global Unpopularity of Globalism

Increasingly, large portions of people, even many majorities, have decided that elites in Western countries—and in many developing countries as well

—have prosecuted this project of globalism at the expense of their own peoples and communities. In America, Wall Street and Silicon Valley reaped the lion's share of the benefits of globalization while the American middle class stagnated and languished.

The situation is the same and worse in many developing countries. The Philippines, after many years of "liberal" leadership, was being turned into a massive haven for drug lords and is teetering toward becoming a narco-state, with its youth poisoned, and its economic development severely crippled. Hungary and Poland, two of the most successful eastern European countries that joined the West after the Cold War, have seen their national priorities suppressed by Brussels' dicta. The EU has nearly prevented them from determining policies that are most fundamental to a sovereign nation, such as immigration and how to run their courts.

Now many of these countries have produced rather strong leaders who (among other things) are seeking to reassert national powers against an over-reaching universal order: the Philippines' Rodrigo Duterte, Hungary's Viktor Orban, India's Narendra Modi, Poland's Law and Justice Party, Egypt's Abdel Fattah el-Sisi, Thailand's Prayut Chan-o-Cha, and, of course, Russia's Vladimir Putin—plus Brexit.

And America produced Donald Trump.

To polemically brand them as nationalists, or populists, is a gross oversimplification. They are nationalistic, and appeal to populism, only in the context of an overly aggressive, one-size-fits-all universal order that has severely limited the powers of national governments to solve problems for their own peoples under their respective and unique national circumstances.

Their support among their own people is derived from the latter's desire to get some power back, in order to determine their nations' own destinies. President Duterte's aggressive campaign against drug crimes, for example, has been condemned by many global opinion leaders but enjoys significant support among the long-suffering Filipino people, even after recent declines. The leaders of Poland and Hungary have likewise faced tremendous pressure from the EU over their efforts to secure their national borders. Even Nobel Peace Prize winner Aung Sang Su Ki, who used to be the darling of universal values advocates, is under attack from her former fans for her efforts to deal with violent and complex ethnic issues on the ground in her country.

In an increasing number of developed and developing countries alike, the conventional, "globalist" political establishment is simply no longer able to solve their societies' problems. Hence their opposition, "nationalists," are on the march. "Nationalist" parties have recently won a clear majority of votes in Austria's national election. Even the mighty Angela Merkel, coroneted by the establishment as the new leader of the free world after Trump's election, saw her party receive the lowest level of voter support in 70 years in the most recent election, while Alternative for Germany (AfD) has surged to a historic high.

In the United States, Trump's election has begun a sustained period of division. The intensity of the attacks on Trump from virtually all quarters of the American political and media establishment has been rare in recent memory—even Jimmy Carter agreed. Just this month, two elder Republican leaders, former President George W. Bush and Senator John McCain, weighed in. Bush echoed the long-held views of many American intellectual elites that the United States is a nation of ideas—a credo polity defined only by its ideology, and divergence from the American creed is "blasphemy". McCain consigned the nationalist sentiments underlying the Trump movement to the "ash heap of history". Such language is troubling, to say the least. The last great power that defined itself as a state of ideas and rejected the central role of shared national history and community in its foundation was the Soviet Union. Are American globalists attempting to turn America from a nation-state into an ideological state—one that could follow the footsteps of the USSR?

China Will Not Abandon Its National Interests

China is a rather unique case in that it never succumbed to the universal order of globalism. Although opening up to the world, especially in trade and economic activity, it has been able to retain its political autonomy to implement policies based on its own circumstances. China has always engaged with globalization on its own terms. In its long negotiation to accede to the WTO, the Chinese government won hard-fought concessions that enabled it to expand employment for its people. Technology transfers were required in exchange for market access, all for the long-term welfare of its national economy. As President Xi has said, China would not "swallow the bitter fruits of harming its national interests" to satisfy the demands of some world order.

Furthermore, China has long advocated allowing such an approach for all other countries. Letting different countries pursue their own development paths has been a steadfast motto of China's worldview. This is why the kind of intense nationalistic populism that is sweeping America and many other countries is not happening in China—because there is no such need.

Over the past thirty years, China has transformed itself from a poor agrarian country into the second largest economy in the world, precisely through the intelligent pursuit of its national interests in a globalizing context. China became the largest economy by purchasing power parity and, in the process, lifted 700 million people out of poverty. Yes, the divide between rich and poor has expanded dramatically. But even the poorest are better off compared to where they were ten or twenty years ago. This is starkly different from what has happened in the United States, where the top earners took virtually all of the wealth created by globalization and the middle and bottom are mostly worse off.

China and the United States: Competitors Can Cooperate

Just as Bannon said, the United States and China are competitors. This is obvious. In fact, almost all countries are rivals of each other to some degree—the United States and Russia, Germany and the United States, India and China. In addition to the economic competition that exists between almost all nations, cultural and civilizational differences combined with geo-political contentions create the potential for conflicts.

But, at the same time, China and the United States have more in common than it appears.

Mr. Bannon would be mistaken if he made America's rivalry with China the defining struggle of his and Mr. Trump's political enterprise. At this moment, the American nation is much more at risk of being subsumed by the Frankenstein universal order of its own making than is China. In the past quarter century, after the end of the Cold War, the globalist agenda has turned America from a victorious superpower into a nation mired in constant and endless warfare abroad and economic polarization, political decay, and social unraveling at home.

Trump's America and China, and many other would-be competitor nations, have a common interest in moderating the excesses of globalism and reconfiguring the world order to make it more conducive to the interests of nations and communities. In this pursuit, China is arguably the most successful, and a potential ally.

Leaders looking to restore national sovereignty will find China to be supportive of many of their goals. China would no doubt support other countries' efforts to regain control of their national borders and determine their own immigration policies, for instance. The Chinese have for decades been the staunchest defender of cultural integrity, embodied in nation states. China is the only major world power to provide strong moral and material support to President Duterte's anti-drug campaign. At the Universal Periodic Review undertaken by the UN Human Rights Council in May 2017, China was the only country that stood by Manila while others condemned it.

For many years, China has been virtually alone in rejecting universal values imposed from the outside. The same proponents of these universal values are now condemning Trump on a daily basis, using nearly identical language to that which they have used to condemn China for a long time. These same voices cheered President Xi at Davos, but the Chinese are not so blind. They know the difference between the globalist agenda and the Chinese agenda.

Many Americans may be too quick to assume that China is on the opposite side when it comes to economic issues, especially on trade. But even here, although their interests necessarily differ, their outlooks are converging. Given its own development experience, China would certainly favor an international economic system that allows room for different countries to implement trade policies appropriate to their national needs. The trade deal China is pursuing with Asian countries, the Regional Comprehensive Economic Partnership (RCEP), is markedly different from the Trans-Pacific Partnership (TPP), which was championed by Obama and terminated by Trump, in that particular respect. The former envisions different standards for different countries while the latter sought to apply universal standards.

Mr. Trump and many of his supporters have blamed China for America's job losses. But this is overly simplistic. Parts of the United States benefited tremendously from globalization. The problem has been America's own inability to distribute these gains equitably and in ways beneficial to its long-term national interests. How can they blame Chinese leaders for doing their job in looking after their own national interests? If they can find the wisdom to sit down and negotiate with the Chinese, the Trump administration may just find a counterparty who is receptive to the notion that America, too, has its own interests and needs. And China should contribute to fixing the trade imbalances between them. Given appropriate trade-offs, China would probably be willing to impose export restraint and further open its markets for American goods and services.

Wang Yang, China's Vice Premier in charge from the Chinese side of the U.S. China Strategic and Economic Dialogue, put it best in a speech delivered in Washington in July 2017, "We understand that quite a few Americans support 'Buy American, Hire American,' just as in China there is also voice for 'Buy Chinese, Hire Chinese.' But it is important that both sides come to realize with cool heads that given the depth of our business cooperation, neither Chinese nor Americans can do without goods from the other country. We both have a stake in the robust, balanced and healthy development of our business ties."

Indeed, bilateralism between the United States and China, both strong and sovereign powers, may be the most constructive way forward. Acting on its own national interests to rebalance its economic relationship with the United States, according to Vice Premier Wang, China imported 400,000 tons of LNG from the U.S. just in the first five months of 2017, from zero in the same period last year. It has also jettisoned a long-standing ban on American beef. For the longer term, China is implementing structural changes such as reducing the number of industries restricted to foreign participation from 180 six years ago to the current 63. Consumptions and services are both up significantly as a share of China's GDP growth. All these speak to a more balanced trade with the United States in the medium to long term, and all these are being carried out in China's own national interests.

Thus it would be wise for America's current leaders to dial down the paranoia about a growing China. The Chinese want to reclaim their preeminent position in Asia, commensurate to China's size and history. But they certainly do not harbor any ambition of becoming some sort of global hegemon, which is not in China's civilizational DNA. The Chinese built its Great Wall to keep "barbarians" out, not to invade them. In the last 100 years, China has only relinquished territorial claims; it has never expanded them. When the People's Republic of China was founded, all of the 16 countries that shared land borders with China had territorial disputes with it. Now, all but two (India and Bhutan) have been resolved through bilateral negotiations, not through global-multilateral schemes.

Multilateral diplomacy can be useful. But strong sovereign states that pursue rational policies based on long-term national interests can be conducive to peace as well. Multilateralism, when pursued with a globalist outlook, often exacerbates conflict. In the South China Sea, for example, decisions by some over-reaching international court intensified confrontation, while bilateral negotiations between China and the Philippines have led to agreements. President Trump may be right on one thing: the United States is expending too many resources to sustain the current world order. The U.S. military is so over-stretched that it found it difficult to deal with natural disasters that have struck its own soil. Perhaps it is high time for America to pivot to solving its own myriad problems and let other sovereign nations deal with theirs.

Reforming International Institutions

The greatest risk for these newly powerful nationalistic leaders is that, in their quest to reclaim national powers, they take the world backwards into the rules of the jungle, forsaking long-term peace for short-term gain. That would be a tragic betrayal of the people who put them in power. Increasing interconnectedness is a secular trend driven by technology and economics, and it will continue. Globalism is the ideological excess. The goal should be to reformulate the structures and contours of globalization to benefit more people rather than to reverse it.

If today's "nationalist" leaders want to contribute to a better future, they need to move beyond reactionary protests and begin generating a positive agenda. One place to start could be reforming antiquated global economic institutions. Many of them are failing at their missions to promote development because of draconian rules to standardize the world. Adherence to rigid doctrines of "free trade" and free capital flow, for example, did not bring promised developments for a vast majority of developing countries in the past twenty years. Within the EU, a single currency and uniform labor rules have crippled the abilities of countries like Greece, Italy, and Bulgaria to adjust their economies in response to changing environments, and the consequences have been dire for these countries. The World Bank now seems to exist mainly to serve its own bureaucrats and universalist ideologues. Its cumbersome, abstract rules and the resulting paralysis have been failing many developing countries. If such institutions cannot be effectively reformed, new ones should be started. China led such an effort two years ago with the establishment of the Asian Infrastructure Investment Bank (AIIB), against strong resistance from the Obama administration.

And it goes beyond economics. The International Criminal Court (ICC) has often put abstract principles above realities on the ground. Its selective pursuit of alleged war criminals has in many cases prolonged violent conflicts, particularly in Africa

The leaders of the world's "nationalist" movements must make it clear that they are not seeking to reverse globalization, but to advance a new version of it. Mutual support between them and China may become a new norm. On a visit to China last year, Hungarian Prime Minister Orban, while promoting the building of railway links to increase the flow of goods between China and central Europe, said the following: "We need to see eye to eye without asking the other side to change themselves. . . . The West (should not believe that it) represents a superior ideal and expects other parts of the world to adopt international doctrines reflecting that. . . . China's political system is up to the Chinese, while Hungary's is up to Hungarians. . . . Nobody has the right to interfere as a self-appointed judge."

President Trump has called his foreign policy outlook "principled realism." In his recent speech to the United Nations General Assembly, his words echoed what China has always advocated: "strong, sovereign nations let diverse countries with different values, different cultures and different dreams not just coexist but work side by side on the basis of mutual respect."

Competition is unavoidable when nations pursue their "permanent interests." But in war everyone loses. President Xi has proposed building a new "community of shared destinies". A good example is the recent rapprochement between China and the Philippines under the leadership of President Duterte, putting aside territorial disputes in the South China Sea and pursuing common interests in trade and investments. Some commentators have judged this as China subordinating the Philippines. Not so. President Duterte stood his own ground with his country's giant neighbor. In exchange for cooperating in the South China Sea, the

Philippines has secured from China unprecedented multibillion-dollar development assistance in addition to support for the anti-drug campaign.

Western opinion leaders have treated such successes of Chinese diplomacy with derision, but the results of the last several decades speak for themselves. The world's newly empowered "nationalists" can usher in a new and stronger international order, in which China can be an important partner. They should work toward an international order that allows room for nations to pursue their own development paths, to defend their own interests, and—on that basis—cooperate to preserve the global commons. The message to the world's nationalists and would-be nationalists: China is your example, and potentially your ally, not your enemy.

Reforming Elites the Confucian Way

JAMES HANKINS

> *The most instructive comparisons (whether of difference or similarity) are those that surprise.*

Meritocracy has become a theme of great interest in contemporary politics, both in Western and Eastern societies. But attitudes toward meritocracy in the two regions differ sharply. In the West, the concept of an elite constituted by its most intellectually gifted and energetic members came into its own in the later nineteenth century with the adoption by the British government of civil service exams. The reform was promoted by British liberals such as William Gladstone and G. M. Macaulay, who believed government offices should be held by the best qualified, not by the well-born or their patronage appointees. For them, meritocracy was a matter of fairness, efficiency, and egalitarianism. In the United States, meritocracy took slightly longer to establish; examinations for the civil service were formally established by the Pendleton Act of 1883. The ideal soon spread to higher education. One of its most effective proponents was James B. Conant, the president of Harvard from 1933 to 1953, a great champion of standardized testing and scholarships for the underprivileged. By the time the word "meritocracy" entered the lexicon of social science in 1957, the ideal it represented had become central to the philosophy of American education. It has remained so down to the present, however qualified by cross-cutting demands for "diversity."

Yet already in the 1950s a reaction had set in. Indeed, the inventor of the term "meritocracy," Michael Young, a leading Labour politician, coined it as a term of abuse (as a hybrid of Latin and Greek, it was technically a barbarism). He objected, as he later wrote, to the rise of a new elite class whose status was based on academic performance. Such a "new class" robbed the working classes of their natural leaders and, confident of its own merit and "insufferably smug," it had little understanding and even less genuine concern for the masses, leaving them "morally naked," judged to be without value. The new class, including both government and business elites, felt entitled to ever greater rewards for itself, which only made inequality worse, despite loud expressions of concern for the poor and oppressed.

Since the 1960s, many voices on both left and right in the West have found fault with meritocracy. On the American left, the deepest concern is that the schools, universities, and tests that confer elite status are unfair to minorities, while the Right worries that progressive elites have become missionaries of an alien global culture, dedicated to wiping out loyalties to traditional morality and religious belief, to country, and to the wider Western heritage of freedom and tolerance. The recent political upheavals in

Europe, Britain, and the United States, mislabeled "populist" or "Far-Right revolts" by elite opinion leaders, show on the contrary that hostility to corrupt, self-righteous elites is a mass phenomenon not confined to conservative think tanks or the political Right. Some large percentage of political moderates—moderate in their view of the state, the old marker of Left-Right sympathies—are rejecting the international progressive elite and all its works.

The Loss and Recovery of Confucian Meritocracy

Meritocracy may be in bad odor in the West, but, meanwhile, in China, it has increasingly been smelling like a rose, at least in the nostrils of philosophers and political scientists. In one sense this is not surprising, given that for nearly two millennia China was the world's first and most successful meritocracy. Although supreme authority in imperial China, through its many dynasties, was based on the principle of hereditary succession, the magistrates and governors who ran the imperial government beneath the emperor qualified for their posts by a series of examinations on classical Confucian texts. Further promotion for the scholar-official depended on both learning and successful tenure of office. The system of imperial examinations was first introduced in the Sui Dynasty—a dynasty contemporaneous with the Merovingians of early medieval Gaul—and lasted, with various intermissions, revivals, and modifications, down to 1905, when it was suppressed in the final death agonies of the Qing Dynasty. By 1905 the examination system was seen as a relic of a failed political culture, one that had been unable to defend China against Western imperialists. Many Chinese critics of Confucianism at the time were themselves part of international networks who had acquired contempt for

Chinese traditions thanks to their immersion in Western ideologies of modernity and progress. By the time the Republic of China was founded in 1911, the teaching of Confucian texts was dying out—though Confucian values proved to be more durable.

When the Chinese Communists came to power in 1949, as radical modernizers they continued to treat Confucianism with contempt. In Mao's various thought-reform campaigns during the 1950s and 1960s—the models for "political correctness" in American universities—Confucianism was regularly denounced as a relic of "feudalism." The nadir came during the Cultural Revolution in 1966, when fanatical young Red Guards trashed the cemetery of Confucius in Qufu and laid siege to the nearby temple complex, the spiritual center of Confucianism.

Since the reforms of Deng Xiaoping began in 1978, however, the ruling Communist Party has acknowledged that excesses were committed during the Cultural Revolution and that Confucianism should be considered a valuable part of China's cultural heritage. Confucianism is taught in that spirit in schools and universities, and Confucian moral values have been publicly embraced by party leaders. Critics even complain that this "official" Confucianism has become something of a state religion, used to promote political quietism. The CPC seems at least to understand that, at this historical moment, Confucius has more appeal as a cultural icon than Mao. A thirty-one-foot-high bronze statue of the sage was even set up in a prominent place near Tiananmen Square in 2011, though it was removed four months later. Whatever the reason for its removal, Confucius remains useful as an ambassador of Chinese culture. The Confucius Institute, founded in 2004 by the PRC's Ministry of Education, has established centers and programs all over the world, on the model of the British Council, the Alliance Française, or Italy's Società Dante Alighieri, to teach Chinese language and promote Chinese culture. When China wants to present a benign face to the world of culture, its face is increasingly that of Confucius.

Even more surprising is the emergence of the works of Confucius and other early Confucian thinkers as sources for the most interesting school of Chinese political theory today, known in English as "Political Confucianism." The name is meant to distinguish it from the New Confucian movement of the early and mid-twentieth century, an effort of some scholars, first inside then (after 1949) outside China, to modernize Confucianism and bring it into harmony with Western rationalism. New Confucians saw Master Kong's works as a wisdom literature, compatible with Western humanism and liberal democracy, primarily ethical in orientation. Political Confucianism sees in them a basis for a new, authentically Chinese political theory and for a reform of China's constitution and forms of governance. (Other names for Political Confucianism are Constitutional or Institutional Confucianism.) Its political goal is, above all, to restore China's traditional commitment to meritocracy.

A good part of the impetus behind Political Confucianism can be described in Western terms as nationalistic, though it should be borne in mind that nationalism is a Western category not easily mapped onto Asia. It is sometimes said that China is a civilization masquerading as a nation-state, and this applies to Political Confucianism as well: Chinese scholars in the movement believe they are defending a wider Asian way of thinking and acting. In the 1990s Chinese thinkers felt themselves under renewed threat from Western imperialism, but this time the threat was more ideological than military or economic, and came from a growing embrace within China of Western-style liberal democracy and the discourse of human rights.

The constant foil of Political Confucianism, even its bête noire, has been the famous work of Francis Fukuyama, *The End of History and the Last Man* (Free Press, 1992). Written in the immediate aftermath of the fall of Communism and the collapse of the Soviet Union, Fukuyama argued that the historical development of political institutions had now come to its end and that soon nation-states all over the world would be forced by the logic of history to embrace American-style liberal democracy. The book was a powerful irritant in Chinese intellectual circles, not only because it was written by a Japanese-American, but because it emerged from a late-Hegelian style of thought well understood in China and given credence by thinkers raised in the Marxist-Leninist tradition. In addition, the book came on the heels of the student uprising in Tiananmen Square (1989), which many inside and outside China believed was the harbinger of a democratic revolution and the end of the Communist Party's hold on power. But the revolution hasn't happened. Most Chinese turned out to have had quite enough of violent political upheaval in the Cultural Revolution, and most Chinese had, and still have, a measure of gratitude to the post-1979 regime for restoring social peace and presiding over the greatest and fastest period of economic growth in history. This above all is what explains the failure of Western-style democratic reforms in China and the consequent rise of Political Meritocracy.

Jiang Qing and the Rise of Political Meritocracy

It would be easy to conclude (as many in fact do) that Political Meritocracy is an ideological weapon being deployed to defend the Communist system. But that is not only an injustice; it is close to being the opposite of the truth. To see why this is the case, it's worth looking at the work of the first major theorist of the movement, Jiang Qing, whose writings have begun to be translated into English. (His name, as transliterated in the *pinyin* system, is, confusingly, the same as Mao Zedong's fourth wife, one of the so-called Gang of Four.) Jiang Qing the philosopher, born in 1953, was the son of a high-ranking Communist official. He attended high school during the Cultural Revolution when, by his own account, he was a committed Marxist. Responding to Mao's anti-elitist calls to "whole-heartedly serve the people," Jiang enlisted in the army where he served as a truck repairman. His intellectual journey took him first from the industrial-grade Marxism of the CPC to the "humanistic" early Marx, and thence to the Western philosophers such as Locke and Rousseau with whom Marx was in dialogue. By this time he had left the army and enrolled in the Southwest University of Politics and Law in Chonqing. In his law school days Jiang became something of a radical, developing a form of liberal Marxism open to Western ideas of democracy and human rights. His writings were suppressed by the authorities. When his first thesis, "A Critique of Stalinism," was rejected by his assessors, Jiang chose to move into what must have seemed safer waters, writing instead a thesis with the title, "A First Look at Confucius' Humanism." Without knowing it, Jiang had found the subject of his life's work.

Judged unreliable by the Party, Jiang was passed over for a government position and went through a period of disillusionment with politics. He experienced a spiritual crisis which led him to explore Daoism, Buddhism, and Christianity. He came close to converting to the latter faith but in the end, he said, "The spirit of Chinese culture dragged my legs back." Eventually he committed himself to Confucianism under the influence especially of Tang Junyi, a New Confucian scholar in Hong Kong, and the brave Liang Shuming, the most influential Confucian surviving in mainland China. What provoked Jiang ultimately to reject New Confucianism were the upheavals of 1989. For him as for many others, the bloody repression of the student-led democracy movement shredded the legitimacy of the regime. But unlike others, Jiang no longer looked to the West for solutions to China's crisis, but to the Chinese past, to the founding fathers of imperial China: Confucius and the early Confucian philosophers Xunzi, Mencius, and Dong Zhongshu.

Jiang defined China's crisis as a crisis of legitimacy, and legitimacy is perhaps the key concern of his work as a political theorist. Jiang rejects the modern principle, fundamental for both Marxism and liberal democracy, that the legitimacy of a regime depends exclusively on its claim to represent the will of the people. Marxists claim to represent the true will of the people, or what the will of the people should be by the lights of Marxist theory as interpreted by party intellectuals, whereas modern democratic leaders claim to represent the people's will as expressed in popular elections. Jiang does not deny that the will of the people is one leg upholding the legitimacy of a regime, but it is not the only one, and not in itself sufficient to make a political system legitimate. In an early Confucian work called the *Gongyang Commentary on the Spring and Summer Annals*, dubiously attributed to Confucius himself, Jiang claims to have found three sources of legitimacy, those of Heaven, of Earth, and of Humanity. The legitimacy of Heaven refers to a sacred source of morality, something like the medieval Western idea of natural law, which has some kind of transcendent origin beyond the phenomenal world. The legitimacy of Earth comes from history and long-standing cultural norms, something like the Roman idea of the *mos maiorum*. The legitimacy of the human comes from the will of the people, which can (but need not) find expression through an electoral system.

Jiang's proposal for constitutional reform in China builds on this triple legitimacy by proposing a tricameral legislature: a House of the People, "chosen according to the norms and processes of Western democratic parliaments"; a House of Scholars, consisting of Confucian scholars chosen by cooptation and examination in the Confucian classics; and a House of the Nation, a largely hereditary body containing "descendants of great sages of the past, descendants of the rulers, descendants of famous people, of patriots, university professors of Chinese history, retired top officials, judges and diplomats, worthy people from society as well as representatives of Daoism, Buddhism, Islam, Tibetan Buddhism, and Christianity." A body, in other words, not unlike the modern British House of Lords, meant to represent and preserve the most respected traditions and achievements of the Chinese people. Jiang also proposes a further, independent body—the Academy—which would set examinations for public office, adjudicate disputes between the Houses, prescribe state ceremonies (an important consideration for Confucians) and uphold religion, and generally act in ways similar to the old Roman office of censor, to maintain moral and intellectual standards among officials and parliamentarians.

What Jiang proposes is neither Western-style liberal democracy nor a socialist republic run by the Communist Party, but something both new and old: a political system adapted to modern conditions but resting on a careful (though controversial) reading of ancient Confucian sources. Indeed, one of the remarkable features of Political Confucianism is its attention to the correct interpretation of texts, a mode of argument that recalls in some ways Western scholastic interpretations of Aristotle in the medieval and early modern periods. It matters what Confucius and his followers actually said, but the state of the texts and their often enigmatic quality leaves much open to interpretation. But some themes are clear enough, and one of those themes is meritocracy. Like the early Confucians, Jiang believes in government by the best and most humane (i.e., learned and moral) persons; in a government whose moral excellence is measured by its concern for all the people, including nonvoters such as future generations and foreigners. It is no surprise that Jiang ran into political obstacles to his teaching at the Shenzhen College of Administration and was obliged to resign his post. He now runs a privately funded Confucian academy in Guizhou, but his intellectual influence remains strong, and he is still a central reference point in the widening movement to return China to its meritocratic roots.

Jiang's bold proposals have acted like a lightning bolt at evening, suddenly illuminating the landscape of modern Chinese political thought. He has attracted numerous followers and critics, who are sometimes the same people. Perhaps his best-known critic in China is Joseph Chan, a professor of politics and public administration at the University of Hong Kong. Chan worries that Jiang's constitution makes Confucianism into a "comprehensive doctrine," structurally not unlike Maoism, that is inappropriate to rapidly changing, pluralistic modern societies. Its "perfectionism," its insistence on a Confucian scale of values, would lead to social conflict and damage civility. In other words, it is illiberal. Chan believes that Confucianism should be invoked more selectively to promote certain values (like meritocracy) but should not be turned into a new state religion. Confucianism should be blended with liberal democratic institutions; those institutions should rest on a Confucian conception of the good, not on Western concepts of individual rights, radical equality, or popular sovereignty alien to Chinese civilization. Chan's critique of Jiang in fact bears some resemblance to Locke's critique of Hobbes's recasting of Anglican Christianity as an ideological instrument of the state. Chan, like Locke, wants to limit the role of religion in public affairs, using it chiefly to identify a common good that transcends partisanship. Jiang replies that Chan's defense of liberal pluralism shows that his deepest loyalties are to Western and not Chinese values; China should be allowed to form its own public philosophy based on its own traditions. Confucianism was historically able to tolerate Daoism, Buddhism, and Christianity as subaltern, private value systems under the umbrella of a public Confucian philosophy.

Really Existing Confucianism

Bai Tongdong of Fudan University is another Political Confucian who disagrees with Jiang on specific issues. A political philosopher educated in the United States, Bai writes engagingly in English as well as in Chinese. He has an excellent understanding of Western political thought that allows him to bring Confucius into dialogue with major Western thinkers from Plato to Rawls. Yet Bai, unlike Chan, does not aim to create a more inclusive framework for global politics via a synthesis of Western and Chinese elements; he is more a partisan defender of Chinese civilization and its political traditions against Western critics. His objections to Jiang are based on his own expert reading of Confucian texts. In Mencius, above all, he finds a more humanistic, less transcendental basis for Confucianism.

Because of its relative secularism, this Confucianism is better adapted to the modern world. Mindful of the horrifying excesses of the Cultural Revolution, Bai argues that China needs to be wary of political ideologies that have the character of religious belief. The ability of religions to create deep bonds among citizens also makes them liable to intolerance of a kind that does not work well in large, pluralistic societies such as China. Confucianism should be understood not as a religion but as a Chinese political philosophy, neither more nor less. If ultimately it could replace the teaching of Western political theories such as Marxism-Leninism in China's schools, Chinese civilization could be restored to its former autonomy and the long period of Western dominance in the Middle Kingdom brought to an end.

Bai is representative of a newer strain of Political Confucianism that is more intellectually aggressive, willing to compare Chinese traditions with Western political values to the latter's disadvantage. Bai goes so far as to argue that Europe's political development from "warring states" in the early modern period to the modern European Union recapitulates in key respects the political development of China between the Spring and Autumn and Warring States (SAWS) period down to founding of the Qin dynasty (roughly 770 to 222 BC). Since Confucianism had its origins as a response to that long crisis of legitimacy, its complex modes of justifying elite power can offer philosophical resources to the modern European Union, often accused of lacking legitimacy owing to its "democratic deficit." In Bai's provocative formulation, China was "modern" before the West was modern.

Even more challenging is the work of Daniel A. Bell, the leading ambassador of Political Confucianism in the Anglosphere and a major *animateur* of the movement within China itself. A Canadian educated at McGill and Oxford with near-native fluency in Chinese, he has made his career as a political scientist in China at Tsinghua and Shandong Universities and is a professor at China's answer to the Rhodes Scholar program, Schwarzman College in Beijing. Bell's controversial recent book, *The China Model: Political Meritocracy and the Limits of Democracy* (Princeton, 2015), makes the case for an alternative to Western liberal democracy, a new ideal of governance inspired by the Chinese Confucian tradition. Bell proposes confining democracy to local government, allowing experimentation with different political institutions at the regional level, but instituting a Confucian-style meritocracy at the top. Such changes would surely represent a considerable improvement over China's current system. But that has not prevented his proposals from being widely attacked in the West for insufficient devotion to the principle of individual freedom, the basis for legitimacy in Western democratic societies. Bell's critics rely too much, however, on the universalist assumptions behind Western theory: the idea that what is right for the West must be equally right for all societies. Despite appearances, Bell is not really asking which system, Chinese meritocracy or Western liberal democracy, produces better governance. That question can be argued in the world of theory, but a theoretical answer to an abstract question is not what is needed in the world of politics. Bell is really asking a more practical question: which system is more likely to provide a path to good governance in China as it seeks an alternative to the Marxist ideology that has less and less hold on the young, and even on members of the Party. As we see also in the West, the absence of a credible political ideal leaves only the hypocritical, the partisan, and the corrupt in charge of politics.

Meritocracy is a case in point. In modern Western democratic thought, meritocracy will always have the suggestion of illegitimacy about it, since the principle of one-man, one-vote implies radical political equality. To deny that principle is to take away liberty as it is conceived in the West. Political equality has been a part of the American credo from its founding, and one way of reading the narrative of America, endorsed by Progressive historiography, is as a history of ever-widening equality, "fulfilling the promise of America," in the cliché of media commentators. In fact the Founding Fathers of the American federal constitution tried to introduce a meritocratic element in the selection of the Senate, but the principle was discarded in the Seventeenth Amendment, passed in 1913 under the sponsorship of the early Progressive movement. In this way the challenge of the "China Model" spotlights a deep tension, perhaps a contradiction, in Progressive ideology: on the one hand, it defends radical equality, while on the other it proposes government by experts, or what Joseph Chan dismisses as mere "technical meritocracy." In principle the technical meritocracy (or "managerial elite," to use James Burnham's term; "new class," to use Irving Kristol's; or "cognitive elite," to use Charles Murray's) is open to anyone of ability, but in practice it is difficult to prevent it developing into a closed caste with its own dogmas, interests, and culture, at odds with those of the non-elites it nominally serves. That is perhaps why modern progressive elites have developed ever more subtle theories of inequality, invisible to the naked eye, such as the theories of "microaggression" and "implicit" or "unconscious" racism or sexism. A highly visible extremism in the cause of eradicating inequality serves to draw attention away from the consolidation of elite power over non-elites—the oppression of the Benighted by the Enlightened (to use Thomas Sowell's terms). As can be seen from the so-called populist reactions of the last year, the tactic has not worked, not least because people do not like being called racist because they are white, or sexist because they are male, any more than African Americans like being called inferior because they are black. In response, one is expected to engage in a form of self-criticism, recalling the practices of Mao's Cultural Revolution. But progressive elites in the West still lack the fullness of institutional power enjoyed by the Communist Party in China; hence the temporary success of revolts against the elite in the Western world.

Populism, however, can never be a governing philosophy for the simple reason that all government requires the rule of some over others, and all regimes need a degree of continuity if they are successfully to prosecute their policies. Hence there will always be an elite of some kind. If we accept the insight of the Italian sociologist Vilfredo Pareto, all elites will naturally seek to perpetuate themselves and rule in their own interest—all elites become oligarchies over time—unless institutions or social norms prevent them from doing so. The real question, as Plato and Aristotle already saw, is what kind of elites a polity is going to have, how to get good and wise rulers into power, how to make them rule in the interests of the whole and not the part, and how to prevent corruption. The more modern issue is how the good and the wise, assuming they can be brought to power, can have their authority accepted by those whom they govern. These are questions that have been relatively neglected in modern Western political theory after the time of John Stuart Mill, but they are front and center in Political Confucianism.

One of the exciting things about reading modern Confucian political philosophy is the sense that it might actually have an impact beyond the world of theory. The Chinese crisis of legitimacy is still ongoing, and indeed is intensifying as the Chinese economy slows and the threat of recession looms. The CPC has relied a great deal on what Daniel Bell calls "performance legitimacy," success in improving the quality of life for the people, yet economic inequality has continued to widen. Western lifestyles, if not Western democracy, have great appeal, and the tired scholastic Marxism mandated in universities is regarded by most students as an arbitrary set of dogmas one is required to parrot for the sake of professional advancement. It has lost its power to inspire. At the same time, China has become more nationalistic, in part to prop up the CPC's authority, and more resistant to the imperialism of Western ideas. Pressure to do something about corrupt officials is building, a pressure to which the Chinese government has responded in Xi Jinping's anti-corruption campaign. Ideological reform, perhaps even constitutional reform, may well occur in the near future, and as generation succeeds generation a modernized Confucianism could well displace Maoism as the governing philosophy of China, playing a role similar to that of Locke and Montesquieu in American constitutional thought.

Reforming American Elites the Confucian Way

The outlook for similar changes in America is less favorable, as American elites increasingly owe their status to a decentralized system of wealthy private universities reliant on billionaire donors, especially Harvard, Yale, Princeton, and Stanford. They have become status-generating machines funded principally by private donations from powerful members of the elite. In other words, they provide a perfect illustration of Robert Michel's "iron law of oligarchy," the closed feedback loop by which elites protect their own power. Such schools have become political monocultures resistant to any challenges to their values or self-esteem. Perhaps the only way to imagine fundamental change occurring in the behavior of American elites, the only way to loosen their grip on power, is via wider changes in public opinion: a more skeptical attitude to elite credentials, for example. And indeed, in America, too, some cracks in the fortress of elite legitimacy have appeared. The commitment to "diversity" has been allowed to undermine the elite's claims to merit, and it is increasingly hard to defend the injustice done to what is doubtless the fastest-growing and most meritorious of American ethnic groups, Asians. The default grade at many universities is now an A, and the consequent absence of meaningful assessment of student performance further undermines the elite's claim to earned rather than ascribed status. Even more destructive of elite credibility are its conspicuous failures in the performance of the social sciences, especially in economics and health care policy, where both predictions and solutions have all too obviously fallen short of knowledge claims.

Here is where Americans might well learn something from modern Confucian thinkers. The thrust of multicultural education has been to regard Western traditions and the political principles of the American founding with suspicion, if not contempt, but to treat all non-Western cultures with the utmost respect. So it's possible that students might be brought to glimpse their own shortcomings in a more distant mirror—the Confucian mirror. Confucians, for example, have far more epistemic humility than their American counterparts. They are much more skeptical of ideological crusades aimed at bringing about political and economic equality or uniformity of thought; such campaigns, they recognize, inevitably lead to tyranny and the immiseration of the people, as occurred during the French Revolution or in Mao's Cultural Revolution. Governments instead should attend to more modest ends, seeing to it that the people have the means to live a decent life and are protected from violence. "Asked about governing, the Master said, 'Simply make sure there is sufficient food, sufficient armaments, and that you have the confidence of the people'" (*Analects* 12.7). Rulers that seek only their own enrichment will fail, but a ruler that aims first at justice for the people will have both wealth and the people's good will (*Mencius* 1A1). Leadership status should spring from the natural admiration most people have for virtue and benevolence as well as from technical expertise. The problem with meritocracy doesn't lie in the desire for status as such. The desire to excel others, to acquire the virtues (in the Aristotelian sense of that word), is natural but rare. In the proper circumstances, in the culture of the Confucian *junzi* or the English gentleman, for example, it can be admirable. It should not be repressed in a spirit of false egalitarianism but redirected in socially useful ways. "Instead of hopelessly and counterproductively trying to eliminate [inequality]," the natural desire for status should be turned "into something good—the service of the 'small men,' the disadvantaged," writes Bai Tongdong. The Confucian idea is thus, for him, a kind of political version of John Rawls's "difference principle," according to which inequality should be tolerated if it serves the most disadvantaged in society. The ideal should be an "equality-based mobile hierarchy," an elite open to all who prove themselves worthy.

So if modern Confucian philosophers were to advise Americans concerned about the state of their elites, what advice might they give? I believe they would assign the highest priority to promoting a true meritocracy. The goal should be to select leaders and magistrates who (as Joseph Chan writes) "have integrity, ability, and commitment to public service and who will cultivate trust and harmony with the people." To accomplish this, education, good culture, and strong institutions are all necessary, but education comes first. Given the hegemony of a few private universities within the American status system, if a competent, modest, decent, and public-spirited elite is to emerge, the donor class will need to appreciate that university programs and curricula as they are currently constituted, as a mere menu of consumer choices, have lost their orientation to the common good and stand in need of radical reform. Mere technocracy uninformed by humane values turns into arrogance and contempt for inferiors; policy elites who believe they have all the answers will train bureaucratic tyrants, wielding their little tridents, certain of their superiority to the ignorant rabble.

Technical posts in government, involving economic policy or public health for example, of course need to be held by persons with the proper qualifications, but technicians should be guided by those with wider views and moral integrity. The highest officers of state should have an education that is broadly literary and philosophical, similar to older forms of classical education in the West or Confucian education in the East, and should include the study of history, languages, literature, and philosophy. And tenure of the highest offices of state must ultimately be justified not simply by successfully competing in examinations or displaying particular competencies but by proven success in improving the quality of life for all the people, and not just in material terms. Social harmony and respect for the sound traditions that have nurtured the finest achievements of America and the West require firm support from those set in authority over us. A society that turns its back on its past stands in danger of a foolish and destructive arrogance. As Master Kong said, "I was not someone who was born with knowledge. I simply love antiquity and diligently look there for knowledge" (*Analects* 7.20).

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The "Surprise" of Authoritarian Resilience in China

WENFANG TANG OCTOBER 20, 2017

Ever since the domino collapse of Communist regimes in the Soviet Bloc in the late 1980s and early 1990s, the world has been waiting for China to follow suit. Indeed, the fall of the Chinese Communist government would probably mean the real end of history given the size of the country. Yet nearly thirty years later, history hasn't ended and the authoritarian government is still going strong. No one can be sure about how long the Chinese regime will last, but it shows no sign of collapsing anytime soon. China observers have changed their research topics from predicting when the country will democratize to understanding why it is resilient to democratization. Although many people haven't given up their hope that China will one day become democratic, here I focus on why the Chinese political system has been working without liberal democracy, at least for the past thirty years. There are different ways to explain authoritarian resilience in China, such as elite power sharing,[1] Confucian meritocracy,[2] and institutional fragmentation.[3] Here I shall focus on another important factor—public opinion and mass political support for the Chinese Communist government. Advances in public opinion research over the last three decades paint a strikingly different picture of Chinese political life, one that challenges fundamental Western preconceptions about democracy and casts recent Chinese political history in a new light.

The Rise of Public Opinion Survey Research in China

One of the most remarkable changes in the past thirty years in the study of Chinese politics is the rise of public opinion survey research. Before then, Chinese politics was sometimes described, with a mixture of images, as a Byzantine-style palace coup d'état behind the bamboo curtain. China scholars were trained to predict policy and personnel changes by reading the front-page articles of the Communist Party's official newspaper, the *People's Daily*, and detecting the slightest word changes. They were also trained to closely examine the official photos in which leaders appeared in different orders, symbolizing the subtle realignment and reconfiguration of elite power balance. Even today, elite politics remains a crucial component in the study of Chinese politics.[4]

As China opened up, however, government officials and scholars realized the importance of collecting scientific data on public opinion. In May 1987, the Economic System Reform Institute of China (esric) conducted the first public opinion survey using a national probability sample based on China's urban population. The esric was set up as a think tank by then prime minister Zhao Ziyang. Concerned about public intolerance and political instability, Zhao ordered esric to carry out biannual urban surveys to monitor the public mood during China's transition from state planning to market capitalism.

The leader of the esric survey team was Yang Guansan, a scholar-official who was a brilliant economist and a graduate of the 1977 class, which was the first crop of China's college graduates in the post-Mao era. Under his leadership, the esric conducted six urban surveys in May and October of

1987, 1988, and 1989. While analyzing the survey data, Yang observed rapidly rising public dissatisfaction with inflation, unemployment, social morale, and government inefficiency.

In early 1989, Yang wrote a top-secret internal report to Zhao Ziyang, showing the survey results and warning him of the danger of urban unrest. It was too late. The massive urban protests began in April that year. Zhao and the other leaders in the Chinese Communist Party never had the time and appropriate measures to respond to the public dissatisfaction. When the protests were suppressed and when Zhao Ziyang was stripped of all of his titles, Yang Guansan's report was found on Zhao's desk. An investigation followed and Yang Guansan was found guilty of instigating the urban riots. He was immediately arrested and jailed at Qin Cheng Prison, the place for the highest-level political prisoners such as the Gang of Four.

In 1991, Yang was released from Qin Cheng. He managed to conduct the esric surveys two more times in 1991 and 1992. The 1992 esric survey was particularly important because it adopted many questions from the General Social Survey in the United States, therefore making the Chinese data systematically comparable to other societies for the first time. As Deng Xiaoping's Southern Tour in 1992 confirmed China's determination to continue market capitalism without political liberalization, Yang finally decided to give up his political and academic career. He turned down my invitation to come to the United States as a visiting scholar and jumped into the futures market. Soon he became a successful trader and a frequent visitor of Beijing's private clubs in his black Mercedes-Benz 600.

After a brief quiet period in the early 1990s, public opinion survey research regained its momentum in China. At the forefront of political science surveys was Shen Mingming. A Michigan-trained political scientist, Shen returned to Peking University and took over the leadership of the Research Center for Contemporary China (RCCC) in the mid-1990s. Since then, the RCCC worked with many international scholars and conducted numerous national and international surveys, such as the 1999 Chinese Urban Survey, the 2004 Legal Survey, the 2008 China Survey, the fourth, fifth, and sixth World Values Surveys, and the 2013–2015 Urban Surveys, among many other local and specialized surveys.

One of the most important contributions to public opinion survey research by the RCCC was its pioneering use of spatial sampling in China during the 2004 Legal Survey under the leadership of Shen Mingming and Pierre Landry.[5] Traditional sampling methods relied on household registration records, which were often incomplete, inaccurate, and politically difficult. The GPS-based spatial sampling can avoid these problems and more easily capture any resident, particularly in large cities like Beijing, Shanghai, Guangzhou, and Shenzhen where the migrant population can be as high as 30–50 percent. Since then, spatial sampling has become a standard technique that has assured the representativeness of survey samples in China. This sample representativeness later turned out to have important implications in the study of regime resilience.

Survey research has mushroomed quickly in China since the 1990s. There are several large-scale national surveys backed by generous grants from the Chinese government, such as the Chinese Labor Dynamics Survey (panel survey) conducted by Sun Yat-Sen University, the Chinese Family Panel

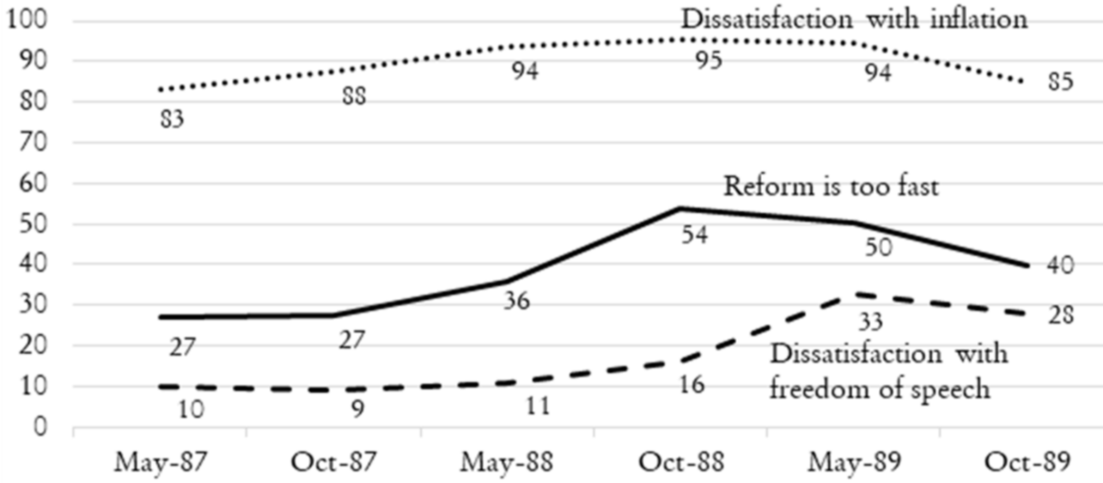
Survey conducted by Peking University, the Chinese General Social Survey conducted by Ren-min University, and independent surveys conducted by overseas scholars, including the World Values Surveys in China, the Asian Barometer Surveys in China, the Chinese Income Inequality Surveys, and so on. In addition to using spatial sampling, these surveys also borrowed many questions from the existing international surveys. Today, survey research about China can rival any country in the world in terms of sampling technique, questionnaire design, and survey quality control; and there is lots of survey data available from China, much of which is underutilized.

The "Surprises" of Public Opinion Surveys

Public opinion surveys have had profound influence on the study of regime resilience in China. Sometimes these surveys challenge long-existing beliefs about political and social realities. Below I will mention five controversial and provocative findings in Chinese public opinion surveys.

(1) The Tiananmen protest was not a pro-democracy movement. While analyzing the esric data, I found something very interesting and unexpected. Public dissatisfaction with inflation, unemployment, social morale, and government inefficiency skyrocketed during the peak of the urban protests in spring 1989, but the majority of urban residents in October 1988 (54 percent) thought that market reform was going "too fast," and such "anti-reform" attitudes closely echoed the rise of inflation during the same time. In the meantime, public demand for liberal democratic ideas such as freedom of speech and freedom of the press never surpassed 33 percent, even in May 1989.

SOCIAL REACTION TO MARKET REFORM IN URBAN CHINA (WEIGHTED %)



Sources: ESRIC Surveys, May 1987–October 1989.

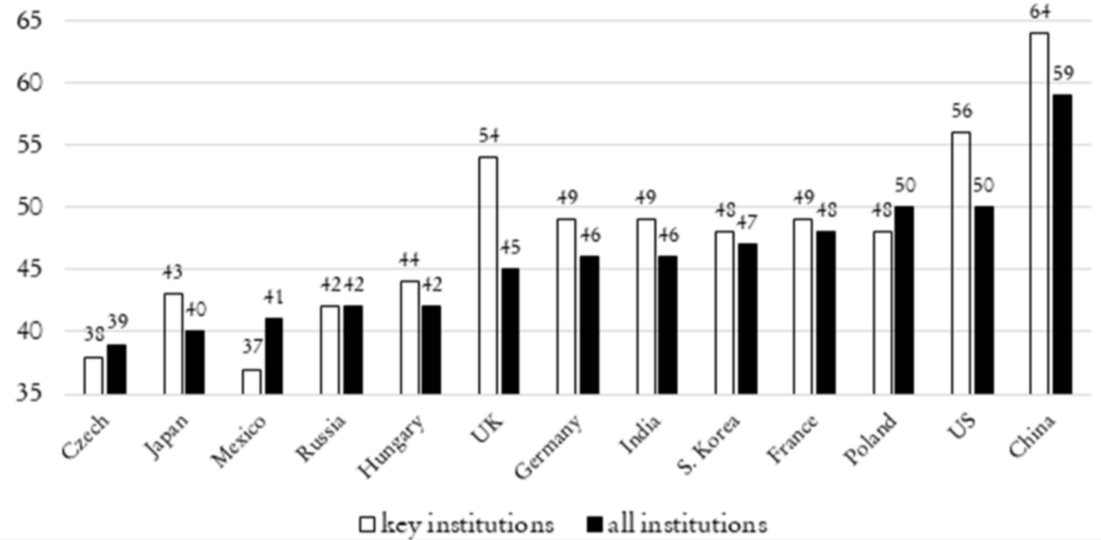
Putting these findings together, what the esric surveys reveal is that the Tiananmen Square protest was by nature an anti-reform movement when urban residents panicked about the negative consequences of marketization. In a miracle of miracles, if there were free elections, the conservative anti-reform candidates probably would have won, and China would have returned to the centrally planned system where urban residents enjoyed a cradle-to-grave social safety net.

This paints a very different picture from the Western media's coverage of the Tiananmen protest. According to the Western media, the Tiananmen protest was a pro-democratic movement where the majority of Chinese urban residents demanded liberal democratic reform. Discussing the findings of the esric surveys was very unpopular in the early 1990s, when Communist governments in the Soviet Bloc were collapsing.[6] Yet the regime resilience in China later proved that the findings of the esric surveys were a realistic reflection of public sentiment in urban China. Today, the esric surveys stand out as the best and only available scientific evidence about what really happened in the spring of 1989 in Tiananmen Square. I would rather trust the results of the esric data, which are based on probability samples, than media reports based on anecdotal stories.

(2) Regime support is high. One of the most consistent findings in the Chinese public opinion surveys is the high level of regime support. Chinese survey respondents have shown strong positive feelings toward their government no matter how survey questions are worded, such as “support for the central government,” “trust in the Communist Party,” “trust in the central government leaders,” “confidence in the key political institutions,” “approval of China’s political system,” “satisfaction with central government performance,” or “identity with the Chinese nation.” Such strong regime support is found in different Chinese surveys conducted by different organizations and different investigators, including the World Values Surveys, the Asian Barometer Surveys, the Pew Surveys, the Chinese General Social Surveys, and the Chinese Urban Surveys, among others.

For example, in the fourth wave of the World Values Surveys conducted around 2000, when respondents in different countries were asked how much confidence they had in their country’s political institutions, China stood out by showing the highest levels of institutional trust among the selected countries, including both new and established democracies.

POLITICAL TRUST IN INSTITUTIONS



Source: World Values Surveys 2000.[7]

The most common challenge to the findings of strong regime support in China is the "political sensitivity" argument. According to this argument, China is an authoritarian police state and Chinese survey respondents hide their unhappiness with the regime due to fear of retribution. This view could be true of the Mao era, but it is a little out of date in today's China. Analyzing online comments, researchers including Gary King, Jennifer Pan, and Molly Roberts found Chinese internet users were willing to be politically active and highly critical of the government, as long as they did not advocate organized political actions.[8] Survey tools such as the list experiment have been used in the United States to detect, for example, when respondents hide racial biases.[9] When the same list experiment was used in Chinese surveys, only 8–10 percent of the respondents were found to hide their unhappiness with the central government.[10] Even after discounting for the political sensitivity effect, regime support in China is still among the highest in the world, higher than in many democracies.

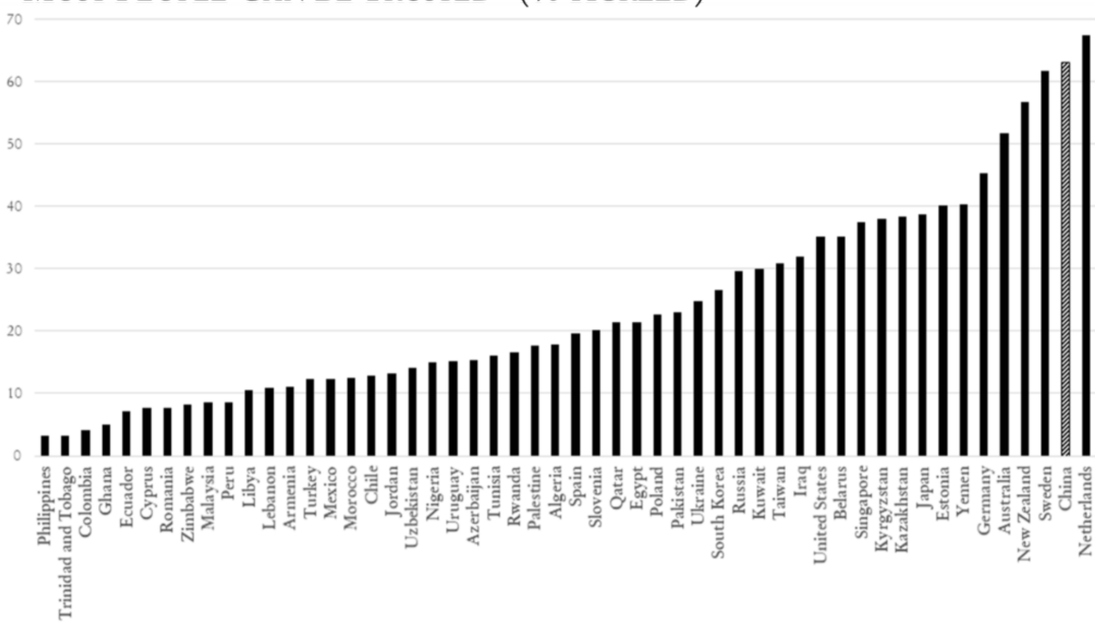
Some people think that authoritarian regime trust is unhealthy and democratic regime distrust is healthy. This may be true, since critical democratic citizens can play the role of assuring government accountability. Yet it seems equally true that decision-making is more efficient and less wasteful of time and resources if there is less tension and greater harmony between the government and the public, particularly in societies with a lot of people and limited resources to spare.

(3) Interpersonal trust. The third "surprise" in the Chinese public opinion surveys is the high level of interpersonal trust. Many Chinese survey respondents in the past twenty years have consistently agreed that "most people can be trusted." For example, 60 percent of the Chinese respondents in the sixth wave of the World Values Survey in 2012 agreed that most people could be trusted, ranking the second highest in the world only next to the Netherlands (62 percent) and much higher than many democracies such as the United States, Taiwan, Japan, and South Korea, in which only some 30 percent of citizens expressed trust in each other. This finding is counterintuitive because it conflicts with the traditional theory of democracy, which tends to make interpersonal trust and social capital a precondition for the successful functioning of democracy.[11]

Such a finding is equally controversial. Some people do not want to believe it because it does not match their impressions when they travel to China and talk to Chinese people.[12] Unfortunately, personal impressions cannot serve to discredit survey findings, especially when surveys are based on representative samples. The disbelievers need better evidence to challenge the survey findings.

Others tend to argue that interpersonal trust has different meanings in different societies. China is a Confucian society, so interpersonal trust must mean trusting one's own family members, while in democratic societies interpersonal trust means trusting strangers. Such a depiction is only partially true. While family trust is very high in China, it is not the most important reason for the high level of general trust. Instead, community-based trust turned out to be most closely related to general trust in China, and it has a positive effect on regime support in multivariate regression analysis when other factors are controlled. The abundance of social capital despite the lack of democracy seems to make China a significant outlier in the existing theory of civic culture and democracy.

"MOST PEOPLE CAN BE TRUSTED" (% AGREED)



Source: World Values Survey 2010–2014.

(4) Political activism. The fourth "surprise" in the Chinese public opinion surveys is the high level of political activism. For example, in the 2012 Chinese Labor Dynamics Survey, nearly half of employees mentioned that they had at least one labor dispute in the past two years. In the 2004 Legal Survey, only 6 percent of the respondents chose to do nothing when they were involved in legal disputes, and the rest would try to resolve them by

various channels, including the court, the labor mediation bureau, the news media, the internet, petition, and protests.

These findings are consistent with the media reports of the increasing number of mass protests in recent years, particularly at the local level. For example, the *New York Times* reported that there were 180,000 mass incidents in 2010, compared to only 10,000 in 1994.[13] The scale of these incidents ranges from a few protesters or petitioners to as many as 100,000. Challenging the government is no longer the business of a few dissidents and intellectuals.

Recent high-profile incidents have been widely reported by Western media: the protest against the local government's handling of a young girl's drowning in Wengan in 2008, protests against a chef's death in Shishou in 2009, the land dispute in Wukan in 2011, the mining plant dispute in Shifang in 2012, the wastewater processing plant dispute in Qidong in 2012.[14] These incidents have generated considerable excitement among Chinese dissidents and some Western media outlets, who tend to describe them as harbingers of political change, a stepping stone towards democracy, or the beginning of the collapse of the authoritarian regime.

On the surface, political activism seems to contradict regime support, as the former brings out public political contention against the regime in the conventional belief. Yet, what is remarkable is that in survey data such as the Chinese General Social Survey, trusting the central government makes people protest more.[15] In other words, central government supporters and the protestors are the *same* people.

Authors such as Keven O'Brien and Li Lianjiang[16] believe that Chinese citizens engage in a clever practice in which they protest against local governments and their bad policies while using the central government's glorious propaganda about serving the people. According to this belief, the protestors learn to fight for their rights in this process, and eventually will fight against and ultimately bring down the authoritarian regime itself. In contrast, others such as Yanqi Tong and Shaohua Lei[17] and Peter Lorentzen[18] believe that mass protests at the local level are encouraged by the central government either through the CCP's populist ideology of Mass Line, or to test and identify unpopular local policies and officials. Such a practice will eventually improve public support for the central government. If the second view is true, political activism is an integral component of regime resilience in China.

(5) Government responsiveness. The fifth "surprise" is the high level of government responsiveness. For example, in the second wave of the Asian Barometer Survey conducted in 2008, 78 percent of mainland Chinese respondents agreed that their government would respond to what people needed. In contrast, only 36 percent of Taiwanese respondents agreed with the same statement in the same survey. The percentages are even worse in other East Asian democracies that copied the Western liberal democratic system, including Japan (33 percent), the Philippines (33 percent), Mongolia (25 percent), and South Korea (21 perecnt).

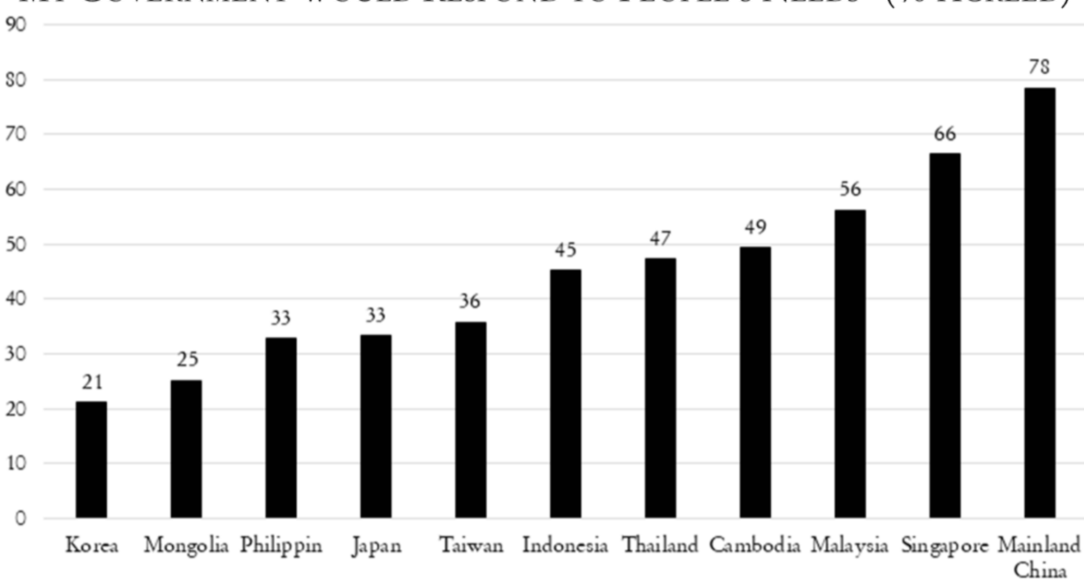
In a multivariate regression analysis when other factors such as age, education, gender, income, religiosity, and geographic location are taken into consideration, government responsiveness played the single most significant role in promoting regime support in China.[19] Existing studies typically attribute the high level of government support to three things: economic growth, media control, and cultural values. According to these studies, the Chinese are happy with their government because (1) their economic conditions have improved during China's period of rapid growth; (2) they are brainwashed by the government-controlled media, which always presents a rosy picture of the country; and (3) the Confucian cultural values make people respect political hierarchy and avoid challenging authority.[20] Yet when these three factors are compared with government responsiveness in the same regression model, the latter continues to show the strongest impact in promoting regime support.[21]

WUKAN VILLAGER PROTESTS IN 2011

Note: the banner says "Central government, please save Wukan!"
Source: YouTube, *accessed Dec. 1, 2017.*

One of the most common challenges to the perceived high level of government responsiveness goes like this: the Chinese live in an unfree society so that they have extremely low expectations about what their government can do for them. They tend to be thrilled if their government does a little of something.[22] In a democratic society, the government regularly responds to public demand, yet the public is always grumpy and constantly asks for more. But this view needs to present real evidence that democratic citizens hold higher expectations of their governments than authoritarian citizens. In fact, the high level of public political activism discussed above suggests that Chinese citizens may have high expectations, and that they do not hesitate to challenge their government when they perceive any mistreatment by its officials. Even if the view of low expectations is true, it discounts the importance of public opinion. Positive public opinion of government responsiveness at least demonstrates external political efficacy, a political commodity desired by any government, regardless of how much a government responds.

"My Government Would Respond to People's Needs" (% Agreed)



Source: Asian Barometer Survey II, 2008.

Another even more provocative explanation of the above finding is that the Chinese authoritarian government is actually more responsive to the public than a democratically elected government such as in Taiwan. Leaders of a democratic government may be hyper-responsive to public opinion only during the election season, and only to their own supporters, but less so once they get elected, between elections, and to those who do not vote for them. In contrast, leaders in authoritarian China do not have the luxury of electoral cycles. The CCP claims to represent the interests of the highest number of people in China, yet it does not have elections as a simple but effective yardstick to measure such representativeness. The CCP becomes paranoid and compelled to respond even when it sees a single protestor on the street. Researchers such as Tong and Lei in their 2014 study of protests in China[23] show that the CCP spends a large amount of time and resources to calm and compensate protestors and petitioners, as an effort to maintain social stability.[24] Perhaps that explains the perception that the CCP spends more on maintaining social stability than on defense.

Authoritarian Resilience and the Theory of Democracy

The information explosion based on public opinion surveys in China in the past thirty years has left a few cracks in the empirical foundation of some of the classic theories of political science that were first developed in the West with limited firsthand evidence. For example, the classic theory of civic culture was developed from survey data in only five countries—the United States, the United Kingdom, Germany, Italy, and Mexico. Today, the World Values Surveys cover more than eighty countries in all continents with human inhabitation.

Among these countries, China stands out as an outlier and does not fit the theoretical predictions of Western political science. As discussed in the above mentioned "surprises": (1) the Tiananmen protest in 1989 was an anti-reform movement, but it was expected to be a pro-democratic movement; (2) the Chinese regime enjoys strong public support even though many in the West expected it to have collapsed already; (3) social capital in China is among the highest in the world, despite political science's expectation that its authoritarian political system would produce public distrust; (4) the authoritarian government is (perceived to be) highly responsive while the theory of democracy predicts otherwise; and (5) Chinese citizens are politically active and enjoy a strong feeling of political efficacy even if they are expected to be politically apathetic.

One problem in the existing political science literature is the rigid (and black-and-white) definition of democracy. For example, in the rankings of democracy and freedom by Polity[25] and Freedom House,[26] both highly respected organizations whose annual rankings are widely used in political science teaching and research, China has been consistently ranked at the very bottom in terms of freedom and democracy. Yet in the World Values Survey in 2012, more than 60 percent of Chinese respondents said they felt free, which was higher than in many democracies. Yes, the Chinese may have extremely low expectations, but they do feel free, and that feeling matters because unhappy citizens can cause political disruption.

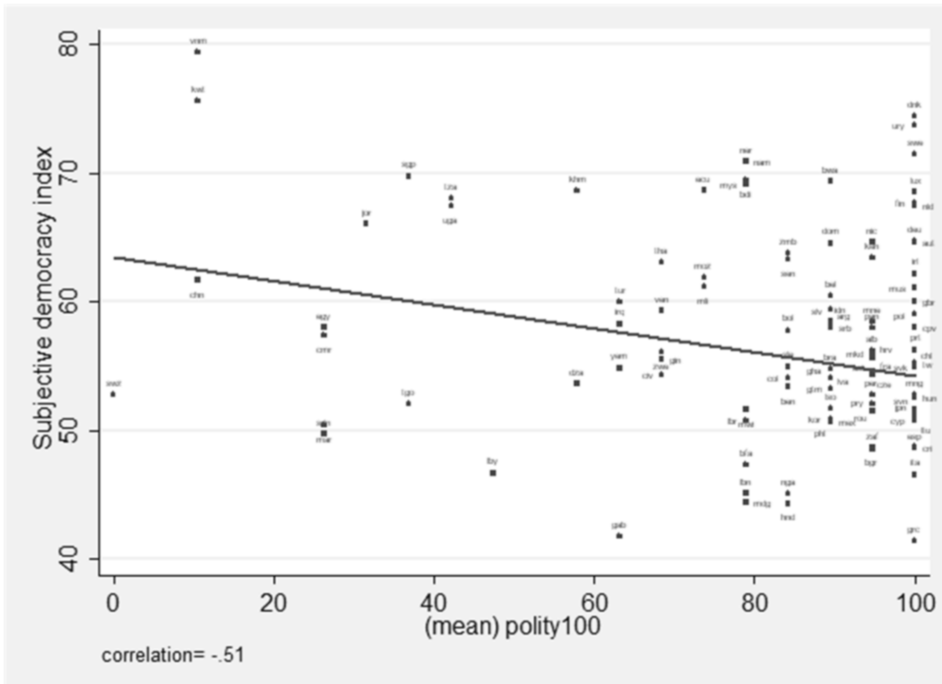
The problem of measurement error is not only limited to China. In fact, when comparing the subjective feelings in public opinion surveys with the "objective" measures of democracy in the rankings assigned by Polity and Freedom House, public opinions throughout the world show a negative correlation with the democracy rankings. This negative relationship between the subjective and the "objective" measures of democracy can be clearly seen in the chart below, based on the Global Barometer Surveys (2010–2015) covering more than seventy countries and regions. The respondents in these surveys were asked about their opinions regarding the following six questions related to the levels of subjective democracy in their societies:

(1) The level of democracy is very high in my country;
(2) The democratic system in my country is functioning very well;
(3) Ordinary people in my country can freely express their opinions;
(4) I trust the media in my country;
(5) My government responds to what people need; and
(6) I am satisfied with my government's performance.

These six items are combined into a single index of subjective democracy. When this index is compared to the Polity scores of "objective" democracy in these same countries and regions, the correlation coefficient is a statistically significant –0.51! In other words, democratic citizens feel less democracy and freedom in their societies than authoritarian citizens.

One way to solve the inconsistency between the subjective and "objective" measures is to slightly stretch the concepts in the political science literature. Concept stretching may carry a negative meaning because it may result in the diluted explanatory power of a theory. Yet overly rigid definitions can limit the scope and effectiveness of political analysis. Some of the key concepts in political science can be stretched (or enriched) by the available public opinion surveys. For example, the traditional study of authoritarian politics can include both elites and masses, and formal and informal politics;[27] social capital can incorporate both civic trust (trusting strangers) and community-based interpersonal trust. More importantly, the traditional definitions of democracy, freedom, government responsiveness, and political legitimacy that are derived from institutional designs (objective measures) can be enriched by including public (not elite) perceptions of these concepts (subjective measures). Those who only focus on the institutional design of democracy but discount the importance of public perception of democracy run the risk of political arrogance.

SUBJECTIVE DEMOCRACY INDEX BY "OBJECTIVE" POLITY SCORE[28]



Sources: Global Barometer Surveys 2010–2015 and Polity scores of democracy.

Finally, a further barrier to understanding China's authoritarian resilience is ideological bias. While people outside China take it for granted that academic research in China is ideologically limited, it is also true that China is frequently judged with ideologically tinted glasses by some media organizations and scholars in the West. According to these ideologically tinted views, the authoritarian political system in China is inherently bad; supporting such a system is unhealthy; civic trust is the only type that can qualify as interpersonal trust and social capital; government responsiveness is due to Chinese citizens' "extremely low expectations," and so on. These value judgements prevent researchers from understanding what is working and what is not working in the Chinese political system, regardless of whether it is good or bad.

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Notes

A shorter version of this article was presented at the Chinese Politics Workshop, Harvard University Asia Center, December 15, 2017.

[1] Milan W. Svolik, *The Politics of Authoritarian Rule* (Cambridge: Cambridge University Press, 2012).

[2] See Daniel A. Bell, "Reconciling Confucianism and Socialism?: Reviving Tradition in China," *Dissent* 57, no. 1 (Winter 2010): 91–99; Doh Chull Shin, *Confucianism and Democratization in East Asia* (Cambridge: Cambridge University Press, 2011); and Tianjian Shi, *The Cultural Logic of Politics in Mainland China and Taiwan* (Cambridge: Cambridge University Press, 2014).

[3] Melanie Manion, *Information for Autocrats: Representation in Chinese Local Congresses* (Cambridge: Cambridge University Press, 2015).

[5] Pierre F. Landry and Mingming Shen, "Reaching Migrants in Survey Research: The Use of the Global Positioning System to Reduce Coverage Bias in China," *Political Analysis* 13, no. 1 (Winter 2005): 1–22.

[6] Wenfang Tang and William L. Parish, "Social Reaction to Reform in Urban China," *Problems of Post-Communism* 43, no. 6 (January 1996): 35–47; and Wenfang Tang and William L. Parish, *Chinese Urban Life under Reform: The Changing Social Contract* (Cambridge: Cambridge University Press, 2000).

[7] The seventeen institutions included in the 2000 WVS are churches, armed forces, education system, the press, the labor union, the police, parliament, civil services, the social security system, television, the government, political parties, major companies, environmental protection organizations, women's organizations, the health care system, and the justice system. The five key political institutions include parliament, the civil service, the legal system, the police, and the army. The average institutional trust score for each country divides the total trust score in seventeen institutions by the number of relevant questions asked (i.e., relevant institutions) in each country. See Qing Yang and Wenfang Tang, "Exploring the Sources of Institutional Trust in China: Culture, Mobilization, or Performance?," *Asian Politics and Policy* 2, no. 3 (July–September 2010): 415–36.

[8] Gary King, Jennifer Pan, and Margaret E. Roberts, "How Censorship in China Allows Government Criticism but Silences Collective Expression," *American Political Science Review* 107, no. 2 (May 2013): 326–43.

[9] David P. Redlawsk, Caroline J. Tolbert, and William Franko, "Voters, Emotions, and Race in 2008: Obama as the First Black President," *Political Research Quarterly* 63, no. 4 (2010): 875–89.

[10] Wenfang Tang, with Yang Zhang, "Political Trust: An Experimental Study," chap. 8 in Wenfang Tang, *Populist Authoritarianism: Chinese Political Culture and Regime Stability* (Oxford: Oxford University Press, 2016).

[11] As articulated by authors such as Gabriel A. Almond and Sidney Verba in *The Civic Culture: Political Attitudes and Democracy in Five Nations* (Princeton: Princeton University Press, 1963); Robert D. Putnam in *Making Democracy Work: Civic Traditions in Modern Italy* (Princeton: Princeton University Press, 1993); Ronald Inglehart in "Trust, Well-Being and Democracy," chap. 4 in *Democracy and Trust*, ed. Mark E. Warren (Cambridge: Cambridge University Press, 1999); and Francis Fukuyama in *Trust: The Social Virtues and the Creation of Prosperity* (New York: Free Press, 1996).

[12] Rory Truex, review of *Populist Authoritarianism: Chinese Political Culture and Regime Sustainability,* by Wenfang Tang, *Perspectives on Politics* 15, no. 2 (June 2017): 617–18.

[13] See Andrew Jacobs, "Village Revolts over Inequities of Chinese Life," *New York Times*, December 15, 2011; and Andrew Jacobs, "Harassment and Evictions Bedevil Even China's Well-Off," *New York Times*, October 28, 2011.

[14] See Geoffrey A. Fowler and Juliet Ye, "Chinese Bloggers Score a Victory against the Government," *Wall Street Journal*, July 7, 2008; "Chef's Death Sparks Riots," Radio Free Asia, July 22, 2009; Austin Ramzy, "Protests Return to Wukan, Chinese Village That Once Expelled Its Officials," *New York Times*, June 20, 2016; Tania Branigan, "Anti-Pollution Protestors Halt

Construction of Copper Plant in China," *Guardian*, July 3, 2012; Jane Perlez, "Waste Project Is Abandoned Following Protests in China," *New York Times*, July 29, 2012.

[15] Tang, *Populist Authoritarianism*.

[16] Kevin J. O'Brien and Lianjiang Li, *Rightful Resistance in Rural China,* (Cambridge: Cambridge University Press, 2006).

[17] Yanqi Tong and Shaohua Lei, *Social Protest in Contemporary China, 2003–2010: Transitional Pains and Regime Legitimacy* (New York: Routledge, 2014).

[18] Peter L. Lorentzen, "Regularizing Rioting: Permitting Public Protest in an Authoritarian Regime," *Quarterly Journal of Political Science*, 8, no. 2 (2013): 127–58.

[19] Wenfang Tang, with Joseph (Yingnan) Zhou and Ray Ou Yang, "Political Trust in China and Taiwan," chap. 5 in Tang, *Populist Authoritarianism*.

[20] See Pippa Norris, *Democratic Deficit: Critical Citizens Revisited* (Cambridge: Cambridge University Press, 2011); Shi, *Cultural Logic*; and Shin, *Confucianism*.

[21] Tang, with Zhou and Yang, "Political Trust in China and Taiwan."

[22] Truex.

[23] Tong and Lei, *Social Protest in Contemporary China*.

[24] Also see Zhu Yunhan, "Zhengquan Hefaxing Laiyuan yu Zhongguo Moshi Zhenglun" (working paper, 2016).

[25] For the Polity Score, see Polity IV Individual Country Regime Trends, 1946-2013 (available at http://www.systemicpeace.org/polity/polity4.htm).

[26] For the country scores by Freedom House, see Freedom in the World 2017: Table of Country Scores, https://freedomhouse.org/report/fiw-2017-table-country-scores.

[27] The best studies on the relationship between formal and informal politics can be found in Elizabeth J. Perry's 2001 research on urban protest, "Challenging the Mandate of Heaven: Popular Protest in Modern China," *Critical Asian Studies* 33, no. 2 (2001): 163–80; and in Lily Tsai's work on the interaction between formal and informal institutions in rural public goods provision: see her *Accountability without Democracy: Solidary Groups and Public Goods Provision in Rural China* (Cambridge: Cambridge University Press, 2007), and "Solidary Groups, Informal Accountability, and Local Public Goods Provision in Rural China," *American Political Science Review* 101, no. 2 (May 2007): 355–72. See also the study of informal personal ties embedded in the CCP's formal organizations, by Victor Shih, Christopher Adolph, and Mingxing Liu, "Getting Ahead in the Communist Party: Explaining the Advancement of Central Committee Members in China," *American Political Science Review* 106, no. 1 (February 2012): 166–87.

[28] Subjective democracy index is a score based on factor analysis combining six questions related to the respondents' feelings about the level of democracy, functioning of democracy, freedom of speech, media trust, government responsiveness, and satisfaction of government performance. The six items are highly correlated and therefore possible to be combined into a single index.

The New Class War

MICHAEL LIND

The Cold War has been followed by the class war. A transatlantic class war has broken out simultaneously in many countries between elites based in the corporate, financial, and professional sectors and working-class populists. Already this transnational class conflict has produced Brexit and the election of Donald Trump to the American presidency. Other shocks are likely in store.

None of the dominant political ideologies of the West can explain the new class war, because all of them pretend that persisting social classes no longer exist in the West. Neoliberalism—the hegemonic ideology of the transatlantic elite—pretends that class has disappeared in societies that are purely meritocratic, with the exception of barriers to individual upward mobility that still exist because of racism, misogyny, and homophobia. Unable to acknowledge the existence of social class, much less to candidly discuss class conflicts, neoliberals can only attribute populism to bigotry or irrationality.

Like neoliberalism, mainstream conservatism denies the existence of classes in the West. Along with neoliberals and libertarians, conservatives assume that the economic elite is not a semi-hereditary class but merely an ever-changing, kaleidoscopic aggregate of talented and hard-working individuals. Meritocratic capitalism is threatened from within by a "new class" consisting of progressive intellectuals—professors, journalists, and nonprofit activists—who are said to be vastly more powerful than CEOs and investment bankers.

Marxism at least takes classes and class conflict seriously. But classical Marxism, with its secularized, providential theory of history and its view of industrial workers as the cosmopolitan agents of global revolution, has always been deluded.

Fortunately, there exists a body of thought that can explain the current upheavals in the West and the world very well. It is James Burnham's theory of the managerial revolution, supplemented by the economic sociology of John Kenneth Galbraith. Burnham's thought has recently enjoyed a revival among thinkers of the center and center-right, including Matthew Continetti, Daniel McCarthy, and Julius Krein. Unfortunately, Galbraith's sociology, along with his economics, remains out of fashion.

In their politics, Burnham and Galbraith could hardly have been more different, despite their shared friendship with William F. Buckley Jr. The patrician Burnham was a leader in the international Trotskyist movement before becoming zealously anticommunist and helping to found the post–World War II conservative movement. Galbraith, in contrast, was a passionate liberal throughout his life.

Yet both believed that a new ruling elite had displaced the old bourgeois and aristocratic estates. Burnham, following Adolf Berle and Gardiner Means's *The Modern Corporation and Private Property* (1932), coined the term "the managerial elite" in his worldwide bestseller *The Managerial Revolution* (1941). Later, in *The New Industrial State* (1967), Galbraith called the same group the "technostructure." In his memoir *A Life in Our Times* (1981), Galbraith wrote: "James Burnham, partly because he was a stalwart right-winger well out of the political mainstream and partly because he was not a certified academician, never got full credit for his contribution. In early editions of *The New Industrial State* I was among those in default."

In his essay "Second Thoughts on James Burnham," George Orwell provided a succinct summary of Burnham's thesis:

> Capitalism is disappearing, but Socialism is not replacing it. What is now arising is a new kind of planned, centralized society which will be neither capitalist nor, in any accepted sense of the word, democratic. The rulers of this new society will be the people who effectively control the means of production: that is, business executives, technicians, bureaucrats and soldiers, lumped together by Burnham, under the name of "managers." These people will eliminate the old capitalist class, crush the working class,

> and so organize society that all power and economic privilege remain in their own hands. . . . The new "managerial" societies will not consist of a patchwork of small, independent states, but of great super-states grouped round the main industrial centers in Europe, Asia and America. These super-states will fight among themselves for possession of the remaining uncaptured portions of the earth, but will probably be unable to conquer one another completely. Internally, each society will be hierarchical, with an aristocracy of talent at the top and a mass of semi-slaves at the bottom.

The thesis of this essay is that the theory of the managerial elite explains the present transatlantic social and political crisis. Following World War II, the democracies of the United States and Europe, along with Japan—determined to avoid a return to depression and committed to undercutting communist anti-capitalist propaganda—adopted variants of cross-class settlements, brokered by national governments between national managerial elites and national labor. Following the Cold War, the global business revolution shattered these social compacts. Through the empowerment of multinational corporations and the creation of transnational supply chains, managerial elites disempowered national labor and national governments and transferred political power from national legislatures to executive agencies, transnational bureaucracies, and treaty organizations. Freed from older constraints, the managerial minorities of Western nations have predictably run amok, using their near-monopoly of power and influence in all sectors—private, public, and nonprofit—to enact policies that advantage their members to the detriment of their fellow citizens. Derided and disempowered, large elements of the native working classes in Western democracies have turned to charismatic tribunes of anti-system populism in electoral rebellions against the selfishness and arrogance of managerial elites.

This essay will conclude with speculation about the possibility of new cross-class settlements among dominant managerial minorities and subordinate working-class majorities in developed nations. These new settlements, if they emerge, will have two characteristics. Like the older settlements, they will be negotiated at the nation-state level, not at the transnational level. And just as the older social settlements were influenced by the world wars and the Cold War, so future cross-class settlements among managers and workers will be influenced by whether the geopolitical context is one of great-power peace or great-power rivalry.

The Managerial Elite: Past and Present

While Burnham and Galbraith included engineers and scientists in the new elite, they were not describing a technocracy run by PhDs. The most important managers are private and public bureaucrats who run large national and global corporations and exercise disproportionate influence in politics and society. Some are independently wealthy, but most are salaried employees or fee-earning professionals. Most of today's billionaires were born into this upper-middle class, and their descendants tend to disappear back into it in a generation or two. Actual hereditary aristocrats who survive in the modern West are anachronisms who, for the most, part avoid ridicule by disguising themselves as hard-working professionals and managers.

To many in the 1940s and since, Burnham's description of New Deal America, Nazi Germany, Imperial Japan, and the Soviet Union as variants of the managerial society seemed outlandish. But since the collapse of Communism, in democratic and authoritarian states alike, the global norm in both developed and developing countries has been some version of the mixed economy with substantial private and government sectors.

How big is the managerial elite? A rough surrogate is higher education. Only around a third of Americans have bachelor's degrees. But many of these are degrees from low-ranked colleges whose holders are best understood as belonging to the upper strata of the working class. Using professional and graduate degrees as a surrogate for membership in the managerial elite would make it no more than ten or fifteen percent of the population.

Are the managers a class as well as an elite? In a purely meritocratic society, the ranks of the managerial elite might be refilled completely by upwardly mobile individuals in each generation. In the United States, however, the majority of American college students come from the minority of families in which one or both parents have college degrees. In other Western democracies as well, membership in the managerial class appears to be mostly hereditary, though partly open to talent from below.

Whatever you call this post-bourgeois elite—the managers or the technostructure—its power base is in the core of what Galbraith called "the bimodal economy"—capital-intensive, science-based, high-tech industries like manufacturing and the business and financial services which they rely on. Increasing returns to scale produce a tendency for immense size in these industries, which tend therefore to be dominated by efficient oligopolies or monopolies. Galbraith called this "the planning system," referring to the private planning done within huge corporations that partly replaces markets with internal administration. Something like the older economy of small, owner-operated businesses and competitive local markets continues to exist around the managerial-industrial core, in what Galbraith called "the market system." The economic historian Alfred D. Chandler Jr. confirmed Galbraith's analysis, using the terms "core" and "periphery" for Galbraith's planning and market systems. For Galbraith and Chandler as well as for Burnham, industrialization changes the landscape forever, like the eruption of a volcano in the middle of a plain filled with small villages.

The managerial theory of society is an elitist theory, not a pluralist one. In Burnham's words:

> From the point of view of the theory of the ruling class, a society is the society of its ruling class. . . . Political history and political science are thus predominantly the history and science of ruling classes, their origin, development, composition, structure and changes.

The private, public, and nonprofit sectors in modern developed nations do not have separate and distinct elites that can be counted upon to check each other. Instead, the private sector tends to dominate the public sector through campaign finance, and the nonprofit sector through donations. Even in the absence of these methods of elite coordination, the fact that almost all of the personnel of elite institutions of all kinds belong to the managerial-professional class and have similar educations and shared outlooks produces a common mentality, tending toward Orwellian groupthink among corporate executives, investment bankers, elected politicians, civil servants, and nonprofit leaders. Managerial dominance is reinforced by lateral mobility at the top levels of society. Diplomats become investment bankers, investment bankers become ambassadors, generals sit on corporate boards, and corporate executives sit on nonprofit boards.

Neither Burnham nor Galbraith believed that the managerial elite was innately evil or illegitimate. Indeed, both thought that dynamic, large corporations and competent bureaucracies were necessary for technological innovation and economic growth. And they did not believe that managers formed a single global ruling class, any more than capitalists and feudal landlords had in the past. Both Burnham's managerial elite and Galbraith's technostructure were rooted in particular nation-states, even if those acted merely as springboards for the geopolitical and economic ambitions of particular groups of managers.

While neither sought to reverse the managerial revolution, both Burnham and Galbraith worried about the concentration of wealth, power, and prestige in the new elite. As realists, they believed that the power of the managerial class could only be checked by what Galbraith called "countervailing power" and what Burnham, following the Italian theorist Gaetano Mosca, called "the juridical defense." Both phrases refer to actual social balances of power, not merely the paper checks and balances of written constitutions.

National Industrial Consolidation

The replacement of entrepreneurial capitalism by large-scale modern managerial capitalism took place relatively rapidly in North America and Western Europe around the turn of the twentieth century. In the United

States, the prohibition of cartels combined with a permissive attitude toward mergers and acquisitions produced what historian Naomi Lamoreaux has called the first great merger movement of 1895 to 1904. In a single decade, 1,800 enterprises—most of them in the manufacturing industry—were consolidated into only 157 firms.

Following the wave of consolidation, the structure of the American economy was remarkably stable between World War I and the late twentieth century. In both 1917 and 1973, 22 of the largest 200 firms were in the petroleum industry, and many of them were the same firms. Likewise, in both 1917 and 1973, 5 of the biggest 200 corporations were in the rubber industry, and 4 were the same (Goodyear, Goodrich, Firestone, and Uniroyal). Machinery companies—many of them the same—accounted for 20 of the 200 biggest firms in 1917 and 18 in 1973. In transportation equipment and food products there were similar continuities. Even John D. Rockefeller's Standard Oil lived on, in the guise of various "baby Standards" created from the court-ordered breakup of the company in 1911, including some like ExxonMobil that grew into global Leviathans.

A 1972 study showed that the level of industrial competition was still similar in all mature industrial economies. In Britain, for example, between 1909 and 1970 the share of all net manufacturing output of the hundred largest firms grew from 16 percent to 45 percent.

This global pattern cannot be explained in terms of the peculiarities of American corporate law or politics. When Chandler studied 379 manufacturing companies with more than twenty thousand employees in 1973, which were then divided roughly equally between the United States and abroad, he discovered that the ratios were amazingly similar: 22 transportation equipment companies in the United States and 22 abroad; 20 electrical machinery companies in the United States compared to 25 abroad; 24 chemical companies in the United States compared to 28 abroad; and 14 petroleum companies in the United States compared to 12 abroad. All of this demonstrates that, in every modern economy, firms in Chandler's "center" and Galbraith's "planning system" that are characterized by increasing returns to scale tend to be both large and, if successful, long-lasting, compared to the smaller firms in Chandler's "periphery" and Galbraith's "market system," in which size produces few or no competitive advantages.

National Political Settlements during the Cold War

From the emergence of managerial capitalism through World War I and the Great Depression, the societies of the North Atlantic were rocked by clashes among corporate elites on the one hand and angry workers and family farmers on the other. The bloodiest labor violence was in the United States, where the armed forces repeatedly crushed strikers. In the 1921 Battle of Blair Mountain in Logan County, West Virginia, state officials used planes to bomb armed strikers from the air.

To obtain social peace and mobilize national populations during World War II, the United States and its allies like Britain brokered business-labor pacts and promised welfare benefits to veterans. In the ensuing Cold War, every major industrial democracy devised some kind of "settlement" or compromise among business and labor interests within the nation.

The postwar settlements were a combination of employer-specific welfare capitalism and universal or means-tested, social-democratic welfare states. In West Germany, welfare capitalism took the form of "codetermination," or union membership on corporate boards. Japan, following intense labor conflict after 1945, developed a system of corporate paternalism and lifetime employment for many workers. Organized labor was weak in the postwar United States, but the "Treaty of Detroit" negotiated among automobile companies and unions was a successful example of informal business-labor corporatism. Low levels of legal and illegal immigration, and social pressure on married mothers to exit the work force to become homemakers, strengthened the bargaining power of mostly male workers by creating tight labor markets.

These corporatist systems of welfare capitalism made the welfare states of the period from the 1940s to the 1970s much smaller than they would have been otherwise. Wage compression brought about by unions in the welfare-capitalist system made it easier for payroll taxes to fund entitlements like public pensions, which in turn were smaller than they might have been because of the widespread existence of private employer pensions.

The post-1945 settlements in the West and Japan demonstrate countervailing power and juridical defense in action. The result was the golden age of capitalism from the 1940s to the 1970s, combining high growth with a more equal distribution of its rewards than has ever existed before or since.

Multinational Corporate Consolidation

Following the fall of the Berlin Wall in 1989, the national settlements brokered by government among managers and labor in Western nation-states were shattered by the emergence of a new pattern of global industrial production and corporate organization.

What the economist Peter Nolan has called "the global business revolution" of the 1990s and 2000s, producing oligopolistic transnational corporations, was the equivalent of the great merger wave of the 1900s that produced oligopolistic national firms. In *Capitalism and Freedom* (Anthem, 2008), Nolan observes:

> By the early 2000s, within the high value-added, high technology, and/or strongly branded segments of world markets, which serve mainly the middle and upper income earners who control the bulk of the world's purchasing power, a veritable "law" had come into play: a handful of giant firms, the "systems integrators," occupied upwards of 50 per cent of the whole global market. The top two firms accounted for 100 per cent of the entire global market for large commercial aircraft and 70 per cent of the carbonated soft drinks market; the top three firms accounted for over 80 per cent of the gas turbine market and for 70 per cent of the farm equipment market, for over 60 per cent of the mobile phone market, and over 50 per cent of the market for LCD TVs; the top four firms accounted for over 60 per cent of the elevator market; the top five firms accounted for over 80 per cent of the digital camera market; the top six firms accounted for over 70 per cent of the auto industry market and the top ten firms accounted for over 50 per cent of the pharmaceutical market.

By the time the Great Recession began with the financial crash of 2008, many global industries were dominated by a few large corporations. Ninety-five percent of microprocessors (chips) were manufactured by four companies: Intel, Advanced Micro Devices, NEC, and Motorola. Two-thirds of the glass bottles in the world were made by only two firms, Owens-Illinois and Saint-Gobin. Half of the world's cars were made by four companies: GM, Ford, Toyota-Daihatsu, and DaimlerChrysler. In business services, Microsoft dominated 90 percent of the market for personal computer operating systems. In 2007, the top two firms controlled 86 percent of the global market in the financial information industry and 77 percent in electronic games, while three firms dominated 71 percent of legal publishing and 62 percent of the global market for artificial joints.

Below the level of transnational corporations, now called "original equipment manufacturers" (OEMs) or "systems integrators," a similar process of consolidation took place at the level of suppliers. On the verge of the Great Recession in 2008, three firms—GE, Pratt and Whitney, and Rolls-Royce—dominated the world market for jet engines. Sixty percent of tires were made by three multinational corporations: Bridgestone, Goodyear, and Michelin.

The emergence of global oligopolies as a result of expansion, mergers, and alliances corresponded to a trend toward transnational production. From one-third to one-half of trade was intrafirm trade or transnational production by a multinational enterprise with suppliers in multiple nations. The Apple iPhone became an iconic product with components from all over the world. Apple iPhone 5S and iPhone 6 models included components from China, the United States, Japan, South Korea, Taiwan, Germany, France, Italy, the Netherlands, and Singapore.

While supply chains were regional or global, most major multinationals continued to be rooted in a single nation-state—most often the three largest developed industrial nations, the United States, Japan, and Germany. In the developing world, most weak nations were assigned low-value-added production on the terms imposed by North American, European, and littoral Asian firms and investors. China, India, Brazil, and other populous developing countries, however, were able to use control of corporate access to their large internal labor forces and consumer markets to pressure foreign capital into promoting projects of national industrial development, by means including local content requirements and technology transfer agreements.

The Economics of Global Arbitrage

It is widely assumed that globalization since the 1990s is responsible for unprecedented productivity growth. In fact, productivity growth has been much lower in the era of post-1989 globalization than it was in the post-1945 era characterized by less integrated national economies and far lower levels of immigration. One reason may be that, in the era of globalization, the new transnational oligopolies have pursued profits by methods other than technology-driven productivity growth. The most important of these corporate strategies have been selective arbitrage and selective harmonization.

Global arbitrage has come in two forms: labor arbitrage and tax-and-subsidy arbitrage. Labor arbitrage includes both relocation of industrial production from high-wage developed nations to low-wage developing countries, and large-scale immigration of both unskilled and skilled workers to the global North. Such labor arbitrage does not encourage, and may even retard, technological progress, which involves the substitution of new technologies or new techniques for expensive labor or natural resource inputs. There is no incentive to make production technology more efficient when profits can be increased merely by closing factories in high-wage areas and locating them in low-wage areas, be they poor, anti-union Southern states in the United States or foreign nations like Mexico and China.

Tax-and-subsidy arbitrage is the practice whereby firms take advantage of differences in tax rates and subsidies in different countries in order to similarly boost profits without boosting productivity. Companies that evade taxation by incorporating in tax havens like the Cayman Islands, Panama, or Ireland do nothing to increase productivity. Neither do transnational companies that relocate to China to enjoy not only low-wage, unfree labor but also ample subsidies of various kinds, including subsidized electricity and tailor-made infrastructure and worker education programs.

Perhaps the iconic product of the era of globalization is the Apple iPhone. According to Konstantine Kakaes in MIT's *Technology Review*, producing every single component of the iPhone in the United States, in addition to assembling it in the United States, would at most add $100 to the cost of the device. But Apple's profit margin would be much smaller than is the case with its present production of the iPhone in six factories using unfree, low-wage labor in China (plus a factory in Brazil, a concession to Brazilian import substitution policy).

In addition to illustrating global labor arbitrage, Apple has mastered the arcane art of tax-and-subsidy arbitrage as well. According to the European Union, the government of Ireland allowed Apple to channel profits from several-dozen nations through two Irish companies, one of which was a "head office" with no employees. As a result, according to the European Commission, Apple recorded profits of around €16 billion, of which only €50 million were taxable in Ireland, giving the company €15.95 billion of untaxed profit.

The Politics of Global Arbitrage

Even as they have exploited opportunities for international labor and tax-and-subsidy arbitrage, firms in the post–Cold War era of globalization have promoted selective harmonization of laws and rules, when it has been in their interest to do so. In the second half of the twentieth century, successive rounds of negotiation under the auspices of the General Agreement on Tariffs and Trade (GATT) and, more recently, the World Trade Organization (WTO) effectively reduced most traditional tariff barriers. By 2016, when the WTO effectively terminated the failed Doha Development Round of global trade talks, the United States and other leading industrial nations had shifted the emphasis from removing barriers restricting the cross-border flow of goods to harmonizing laws and regulations through "multiregional trade pacts" like the North American Free Trade Agreement (NAFTA), the Trans-Pacific Partnership (TPP), and the Transatlantic Trade and Investment Partnership (TTIP), in the interests of transnational investors and corporations reliant on transnational supply chains.

The areas chosen for arbitrage and harmonization reflect the interests not of national working-class majorities but of the managerial elites that dominate western governments. Harmonizing labor standards or wages would undercut the labor arbitrage strategy, while transnational crackdowns on tax avoidance would thwart the strategy of tax arbitrage by transnational firms. Instead, the emphasis in harmonization policy has been on common industrial standards, the liberalization of financial systems, and intellectual property rights, including pharmaceutical patents. These kinds of harmonization benefit transnational firms, investors on Wall Street or in the City of London, and the holders of intellectual property rights in Silicon Valley and the pharmaceutical industry.

In many cases, this kind of regulatory harmonization makes sense—standardizing product safety measures, for example. But the new regulatory harmonization agreements produce a "democratic deficit" in two ways.

First, they remove whole areas of regulation from the realm of ordinary legislation, replacing it with "legislation by treaty." Favorable laws and regulations that corporate lobbyists are unable to persuade national democratic legislatures to enact can be repackaged and hidden in harmonization agreements masked as "trade" treaties. These treaties, often thousands of pages long, tend to be drafted in secret by committees involving corporate lobbyists and may be ratified by legislatures without careful scrutiny.

Worse, most of these contemporary regulatory harmonization agreements include "investor-state dispute settlement" (ISDS) provisions that allow individual corporations to sue national governments that change the rules in their countries after the passage of the treaty in private tribunals, dominated by corporate lawyers, with no appeal mechanism. If Congress enacts a statute that adversely affects the interests of Acme Inc., then Acme has few options, other than paying lobbyists and making campaign donations. But if Congress ratifies a treaty, and later changes a provision by passing a new law, Acme can sue the federal government for financial damages. The United States has yet to lose a case to ISDS, but other countries have, and some believe that the prospect of corporate lawsuits has a chilling effect on new laws and regulations of which particular corporations disapprove.

None of this is to imply that the transnational managers of the West and littoral East Asia who control the new global oligopolies are more selfish or less public-spirited than the managers of national corporations during the Second Industrial Era. On the contrary, in personal terms, today's managerial elite is for the most part less bigoted and often quite philanthropic. The point is simply that the American, German, and Japanese corporations of half a century ago were constrained by kinds of Galbraithian countervailing power and Burnhamite/Moscian juridical defenses that have crumbled. Thanks to globalization, itself a voluntary policy choice enabled but not required by new technology, today's transnational firms have much more bargaining power in their dealings with workers and democratic nation-states.

Globalization: Hobson's Imperialism?

That the post–Cold War pattern of globalization has been chiefly motivated by opportunities for international arbitrage and tax-and-subsidy manipulation—rather than compelled by the logic of modern technology or the pressure of free-market forces—is suggested by the fact that a strikingly similar pattern of globalization was envisioned by the British social philosopher John A. Hobson more than a century ago, when technology was quite different. In *Imperialism: A Study* (1902), Hobson speculated that, if the Western industrial nations refrained from military conflict with one another, they might collaborate on the common project of the economic development of Asia in general, and China in particular.

Western capitalists, Hobson suggested in the racialist language of his time, might buy the acquiescence of Western working classes in the transfer of manufacturing from Europe and America to Asia by allowing them to share in the rents obtained by the exploitation of impoverished Chinese labor:

> In a word, the investors and business managers of the West appear to have struck in China a mine of labour power richer by far than any of the gold and other mineral deposits which have directed imperial enterprise in Africa and elsewhere; it seems so enormous and so expansible as to open up the possibility of raising whole white populations of the West to the position of "independent gentlemen," living, as do the small white settlements in India or South Africa, upon the manual toil of these laborious inferiors. . . . Such an experiment may revolutionise the methods of Imperialism; the pressure of working-class movements in politics and industry in the West can be met by a flood of China goods, so as to keep down wages and compel industry [of Western workers], or, where the power of the imperialist oligarchy is well set, by menaces of yellow

> workmen or of yellow mercenary troops, while collaboration in this huge Eastern development may involve an understanding between the groups of business politicians in the Western States close enough and strong enough to secure international peace in Europe and some relaxation of militarism.

Hobson's lurid prediction of "yellow mercenary troops" being used to suppress Western workforces, like similar turn-of-the-century Yellow Peril prophecies, has not materialized. But his other predictions, translated into modern language, have come to pass. The claim of neoliberal ideologues that Western industrial workers who lose their jobs to offshoring in China and other low-wage countries would obtain new and better jobs in the "knowledge economy" was precisely a promise that, in the postindustrial West, most workers would share the intellectual property rents of the knowledge economy, rather like "independent gentlemen," while Asian proles and peasants labored in factories. In the pages of the *Economist* and other propaganda organs of the managerial oligarchy, the claim that the lower prices of Chinese consumer goods outweigh the harm done to the Western working class by partial deindustrialization is routinely repeated, more than a century after Hobson's prediction.

Hobson envisioned a dystopian future for a deindustrialized West ruled by a class of transnational managers and investors:

> We have foreshadowed the possibility of an even larger alliance of Western States, a European federation of great Powers which, so far from forwarding the cause of world-civilisation, might introduce the gigantic peril of a Western parasitism, a group of advanced industrial nations, whose upper classes drew vast tribute from Asia and Africa, with which

> they supported great tame masses of retainers, no longer engaged in the staple industries of agriculture and manufacture, but kept in the performance of personal or minor industrial services under the control of a new financial aristocracy.

Hobson further warned: "The greater part of Western Europe might then assume the appearance and character already exhibited by tracts of country in the South of England, in the Riviera, and in the tourist-ridden or residential parts of Italy and Switzerland, little clusters of wealthy aristocrats drawing dividends and pensions from the Far East, with a somewhat larger group of professional retainers and tradesmen and a large body of personal servants." The "little clusters" of rich rentiers and their professional retainers and menial servants bring to mind today's increasingly stratified "global cities" like London, New York, and San Francisco, embedded in nation-states with large tracts of derelict, former industrial zones.

Immigrants and Oligarchs

As we have seen, in the late twentieth century, Western managerial elites, by means of transnational corporations, were able to escape from their mid-twentieth-century social contract with national workers by offshoring production, or threatening to do so. Purely domestic companies, like hotels, restaurants, and construction companies, did not have this option. But they could benefit from immigration, because loose labor markets weaken the bargaining power of workers, just as tight labor markets weaken the bargaining power of employers. That is why, throughout most of history in the United States and other countries, organized labor has usually opposed large-scale immigration of any kind, while capitalists and corporate managers have often welcomed it.

Some Western countries have had formal policies of encouraging unskilled, low-wage immigration, like West Germany with its Turkish *Gastarbeiter* (guest workers). But for the most part, unskilled immigration has been the incidental result of other policies in particular nations. In the United States, most legal, unskilled immigrants have been low-income Mexicans and Central Americans who come on the basis of U.S. family reunification laws, in addition to the twelve million or so illegal immigrants, mostly from the same nearby countries. In Europe, asylum laws and refugee policies are the chief source of unskilled immigration. And some European countries have privileged immigration from former colonies. Whatever the particular regime, in every Western country the immigration issue pits the managerial elite against the working-class, native majority.

Scholars debate the economic effects of immigration to the United States. A recent National Academies of Sciences, Engineering and Medicine report tried to put a positive spin on its findings, but they were sobering: lower wages "for immigrants or native-born workers who have not completed high school—who are often the closest substitutes for immigrant workers with low skills," and the reminder that "first-generation immigrants are more costly to governments, mainly at the state and local levels, than are the native-born." The benefits of low-wage immigration, according to the report, go chiefly to the affluent consumers of labor-intensive services, while the costs fall on low-wage workers and taxpayers. The American media reflect the interests of managerial and professional elites in low-wage employees and cheap domestic servants, so the bad news was buried in mainstream reporting. "Immigrants Aren't Taking Americans' Jobs, New Study Finds," declared the *New York Times* on September 21, 2016.

The real but limited negative impact of immigration on low-income workers and stressed government budgets might have been a minor issue in politics, but for two other factors. One is the combination of relatively high birth rates among some immigrant groups, like Latin Americans in the United States and Muslims in Europe, with low and declining native birth rates, which means that relatively small amounts of immigration can dramatically change the ethnic composition of a country in a few generations. Even if, in the long run, immigrants assimilate and merge with the native population, rapid ethnic change is disruptive and frequently viewed as a threat by natives.

The other factor is the modern welfare state. On both sides of the Atlantic, it was created in a period of low immigration and high native fertility after World War II. National welfare states take different forms, but they are all based on the principle of solidarity among members of the nation, who agree to work and be taxed to help their fellow citizens in order to be eligible for that same help in sickness or old age.

The incompatibility of the welfare state and mass immigration was noted by the libertarian economist Milton Friedman: "If you have a welfare state, if you have a state in which every resident is promised a certain minimum level of income, or a minimum level of subsistence, regardless of whether he works or not, produces it or not. Then [free immigration] really is an impossible thing." His ideological opposite, Paul Krugman, agrees. Because "modern America is a welfare state" and "low-skill immigrants don't pay enough taxes to cover the cost of the benefits they receive," Krugman concluded that the "political threat that low-skill immigration poses to the welfare state is more serious" than its other consequences. For his part, Friedman welcomed illegal immigration as a good thing because illegal immigrants are ineligible for welfare: "But it's only good so long as it's illegal. . . . Make it legal and it's no good. Why? Because as long as it's illegal the people who come in do not qualify for welfare, they don't qualify for social security, they don't qualify for the other myriad of benefits."

While using legal and illegal means to promote mass immigration, in order to discourage unions, suppress wages, avert inflation caused by tight labor markets, and to provide a buyer's market in nannies and gardeners, the managerial elites of North America and Europe also champion "diversity," which reduces the likelihood that workers of different ethnicities will unite in a common front against economic elites. In a letter in 1870, Marx wrote:

> Owing to the constantly increasing concentration of leaseholds, Ireland constantly sends her own surplus to the English labor market, and thus forces down wages and lowers the material and moral position of the English working class.
>
> And most important of all! Every industrial and commercial centre in England now possesses a working class divided into two *hostile* camps, English proletarians and Irish proletarians. The ordinary English worker hates the Irish worker as a competitor who lowers his standard of life. . . . His attitude towards him is much the same as that of the "poor whites" to the Negroes in the former slave states of the U.S.A. . . . *This antagonism* is the secret of the *impotence of the English working class*, despite its

> organization. It is the secret by which the capitalist class maintains its power. And the latter is quite aware of this. (Italics in the original.)

Similarly, Hobson (with his characteristic racist rhetoric) speculated that the economic elite might engineer mass immigration:

> Lastly, it is conceivable that the powerful industrial and financial classes of the West, in order better to keep the economic and political mastery at home, may combine to reverse the policy which has hitherto been gaining ground in the United States and in our white colonies, and may insist upon the free importation of yellow labour for domestic and industrial service in the West. This is a weapon which they hold in reserve, should they need to use it in order to keep the populace in safe subjection.

Because Hobson envisioned something very similar to the post–Cold War pattern of offshoring, transnational production, and mass low-wage immigration in the age of railroads, steamships, and telegraphs, today's pattern cannot be viewed as the predetermined result of new technologies like the Internet, global wireless telephony, and container ships. A number of different global economic orders are compatible with modern technology, just as numerous alternatives were compatible with the technology of Hobson's era. The technology needed for something like present-day globalization existed in the 1900s. But between 1914 and 1989, a necessary but not sufficient condition for this kind of managerial globalism was lacking: great-power peace.

From Super-Imperialism to Bloc Wars

Hobson's vision of a pan-Western syndicate of industrialists and investors exploiting the industrialization of China and the rest of the non-Western world was similar to Karl Kautsky's idea of a "super-imperialist bloc" of capitalist nations that would set aside military rivalries in the interest of shared profits from investments in developing countries. Whether sovereign great powers, absent the pressure of military compulsion, would ever volunteer to merge to that degree may be doubted. Today's transnational blocs emerged only in the shadow of two world wars and the Cold War.

In *The Managerial Revolution*, Burnham predicted the division of the postwar world among three "superstates" based on the United States, Germany, and Japan—inspiring Orwell's Oceania, Eurasia, and Eastasia in his novel *1984*. Instead, following World War II, West Germany and Japan became semi-sovereign protectorates of the United States, while Britain and France, shorn of their colonial empires, became American dependencies as well. Bipolarity rather than tripolarity structured world politics from the 1940s to the 1990s.

Neoliberal globalization was possible only in the decades immediately following the Cold War, when the United States was the "sole superpower" and no credible "peer competitor" had yet emerged. In the 1990s, the United States and its European allies, along with Japan, South Korea, and Taiwan, functioned like the pan-capitalist blocs of Hobson and Kautsky, right down to the offshoring of much of their manufacturing to China. However, the rise of China is bringing that ephemeral moment to a close—and with it, almost certainly, an end to the present structure of global industry.

Hobson, in his bigoted style, acknowledged the possibility of the rise of a powerful industrial China and a consequent protectionist backlash in the West:

> Again, China, passing more quickly than other "lower races" through the period of dependence on Western science and Western capital, and quickly assimilating what they have to give, may re-establish her own economic independence, finding out of her own resources the capital and organising skill required for the machine industries, and . . . may quickly launch herself upon the world-market as the biggest and most effective competitor, taking to herself first the trade of Asia and the Pacific, and then swamping the free markets of the West and driving the closed markets of the West to an ever more rigorous Protection with its corollary of diminished production.

Populist Rebellions and Their Limitations

If I am correct, the post–Cold War period has come to a close, and the industrial democracies of North America and Europe have entered a new and turbulent era. The managerial class has destroyed the social settlements that constrained it temporarily in the second half of the twentieth century and created a new kind of politics, largely insulated from popular participation and electoral democracy, based on large donors and shifting coalitions within a highly homogeneous coalition of allied Western elites. Following two decades of increasing consolidation of the power of the managerial class, the populist and nationalist wave on both sides of the Atlantic is a predictable rebellion by working-class outsiders against managerial-class insiders and their domestic allies, who are often recruited from native minorities or immigrant diasporas.

Will the result of the contemporary class war among managers and workers on both sides of the Atlantic be a revival of fascism? In some countries in Europe, populist nationalist parties have emerged from tiny fringe fascist parties, or have attracted their supporters. But talk about Weimar America or Weimar Europe is based on a misunderstanding of history, which blames fascism on populism. In reality, despite their populist trappings, most interwar fascist movements were favored by military and economic elites as a way to block social democracy and communism.

It is not the Weimar republic but the banana republic that provides the most likely negative model. In many Latin American countries, politics has traditionally pitted oligarchs versus populists. A similar pattern existed in many Southern states in the United States between the Civil War and the civil rights revolution.

When populist outsiders challenge oligarchic insiders, the oligarchs almost always win. How could they lose? They may not have numbers, but they control most of the wealth, expertise, and political influence and dominate the media, universities, and nonprofit sectors. Most populist waves break and disperse on the concrete seawalls of elite privilege.

In the American South, most populist politicians gave up or sold out. In some cases, like that of Texas governor and senator W. Lee "Pappy" O'Daniel, a country music singer, they were simply folksy fronts for corporate and upper-class interests all along. The few populists who maintained some independence were those who could finance themselves, usually by corrupt means. Louisiana governor Huey Long could battle the ruling families and the powerful corporations because he skimmed money from state employee checks and kept it in a locked "deduct box." In Texas, anti-Klan populist governor James "Pa" Ferguson, along with his wife Miriam "Ma" Ferguson, who was elected governor after her husband was impeached on the slogan "Two Governors for the price of one," sold pardons to the relatives of convicted criminals. As billionaires who could finance their own campaigns, Ross Perot and Donald Trump could claim, with some justification, to be free to run against the national establishment.

Those who believe in liberal democracy can look on this kind of political order only with dismay. Most of the time, coteries within a nepotistic elite run things for the benefit of their class. Now and then, a charismatic populist arises, only to fail, sell out to the establishment, or establish a personal or dynastic political-economic racket. Formal democracy may survive, but its spirit has fled. No matter who wins, the insiders or outsiders, the majority will lose.

Alternatives to Populism

Is there an alternative to a Latin American or Southern future for the West, an endless clash of oligarchs and populists? If there is, it will take the form of a settlement like that of the post-1945 social contract in its spirit, though not in its details.

One possible new cross-class compromise between the managerial elite and the working-class majority in Western nations would take the form of the radical renationalization of industry. This seems to be what many populists on both right and left have in mind when they want politicians to "bring the jobs back"—that is, well-paid manufacturing jobs. But this would sacrifice benefits from supra-national economies of scale, which are real in industries like manufacturing, even if the recent pattern of offshoring has been driven by manipulative policies like labor arbitrage rather than a focus on productivity.

Because of the multiplier effect on the larger economy in which manufacturing is embedded, it is important for countries to acquire or maintain high-value-added manufacturing, even if only a minority of the workforce is formally employed in the sector. But most American workers are already employed in the nontraded domestic service sector. Their jobs and wages can be threatened by mass immigration but not by offshoring.

Radical de-globalization and the restoration of something like the largely autarkic national economies based on vertically integrated national firms of the 1950s and 1960s, then, would not be desirable, even if it were possible. At the other extreme is the fantasy of a new global settlement, with global labor unions and global government (or "governance") checking global corporate and financial oligopolies. Post-national global governance that promotes the shared interests of a transnational working class is even less likely to happen than radical renationalization.

This leaves two options for a new settlement, which might be called "neoliberalism plus" and a new developmentalism.

Neoliberalism plus, also called "inclusive capitalism," is the preferred response of the transatlantic managerial class to the populist revolts in Europe and America. Essentially, neoliberalism plus is Reagan-Thatcher-Clinton-Blair neoliberalism with more subsidies to the "losers" of globalization. The disempowerment of non-elite citizens by the oligarchic capture of politics and the destruction of unions would not be altered. But the masses would be bribed into acquiescence by means of higher wage subsidies, like the Earned Income Tax Credit (EITC) in the United States, or perhaps a universal basic income providing every citizen a poverty wage.

While something like this will undoubtedly be tried in many Western countries, the economics do not work. Bribing workers who have stagnant or declining incomes with new welfare subsidies requires an economically dynamic sector of the economy to make the bribes affordable. The neoliberal donor class, concentrated in elite rentier enclaves, assumes the permanent existence of high intellectual-property rents flowing from the rest of the world to tech tycoons, along with global financial rents flowing to money managers. These rents, it is assumed, will be so high and sustainable that the tycoons and money managers will gladly share them with the rest of the population in the nation-states in which they happen to reside.

But global innovation rents quickly disappear, as a result of lapsing patents, intellectual property theft, foreign success in indigenous innovation, and the commoditization of former cutting-edge industries. As for taxing financiers to subsidize far larger welfare states, this may work in cities like New York and London, but it cannot possibly work on the scale of nation-states, including continental nation-states like the United States, with a third of a billion inhabitants.

Nor can advanced manufacturing pay for the massive redistribution from the few to the many required by the neoliberalism plus strategy. High productivity in manufacturing and services is incompatible with neoliberal trade policies that allow the offshoring of both high-value-added production as well as low-value-added activities by corporations and tolerate the devastation of domestic high-value-added industries by subsidized imports from mercantilist countries like China. Even worse, in the nontraded domestic service sector, flooding the low-end labor market with poorly paid and poorly educated immigrants reduces the incentive of service industries to boost their productivity by investing in labor-saving technology or reorganizing their business models to minimize labor.

In other words, neoliberal economic strategy itself, because of its bias in favor of business models relying on cheap labor at home and abroad, tends to undermine the productivity growth needed to pay for the massive redistribution that, it is hoped, would align the interests of workers and managerial elites.

It is no coincidence that Reaganism-Clintonism and Thatcherism-Blairism coincided with prolonged asset bubbles, or that their most ardent proponents tend to be located in the City of London, Wall Street, and Silicon Valley. For a time, it is possible for stock-market booms, real estate frothiness, and other bubbles to fund redistributive taxation. But overbuilt welfare states that assume perpetual booms instead of slow, steady, and difficult productivity growth are destined to become insolvent.

Unlike the ephemeral innovation rents of the so-called knowledge economy, financial, property, and resource rents actually can become permanent. In earlier generations, successful merchants and industrialists often became bankers or aristocrats. If the children and grandchildren of today's IPO billionaires become landlords and moneylenders, they could transform into a new aristocracy in a kind of high-tech Western feudalism.

David Ricardo believed that in a three-way struggle among landlords earning rent, capitalists earning profits, and workers earning wages, landlords might eventually prevail. In an economy with low or no productivity growth, landlords, bankers, and other rentiers might displace the managers of the industrial sector as the dominant class. Just as managerialism succeeded bourgeois capitalism and feudalism, so managerialism in an age of technological and economic stagnation might give way in turn to what Peter Frase in *Four Futures: Life after Capitalism* (Verso, 2016) has called "rentism."

New Developmentalism

The term "developmental state" was first used by scholars like Chalmers Johnson and Alice Amsden to describe the post-1945 regimes of Japan, South Korea, Taiwan, and Singapore, which relied on export-oriented strategies as part of programs to industrialize and catch up with the West. But the concept of the developmental state deserves a far broader definition.

As the economists Erik Reinert, Ha-Joon Chang, and Michael Hudson, among others, have demonstrated, the mercantilism of Renaissance and early modern Western city-states, kingdoms, and empires was a version of the developmental state. From the Tudor era until the adoption of economic liberalism in the 1840s, England (the United Kingdom after 1707) was a classic mercantilist state, seeking to help its industries by providing them with a seller's market in high-value-added manufactured goods and a buyer's market in industrial inputs like commodities and labor. The British empire promoted this industrial strategy by forcing its Irish, North American, and Indian subjects to specialize in exports of raw materials to British manufacturers, who in turn enjoyed monopolies on the sale of finished goods to the colonies.

After Britain pioneered the Industrial Revolution, the United States and Germany successfully caught up with and surpassed the UK by means of import-substitution policies that protected their national markets for national firms. Not until the aftermath of World War II, when the United States briefly enjoyed industrial hegemony in a shattered world and lacked foreign competition, did Washington abandon its policy of infant industry protectionism.

A third variant of developmentalism was devised by Japan and "the Little Tigers" (South Korea, Taiwan, and Singapore) during the Cold War. Prevented from using tariffs by "unequal treaties" with Western nations before World War II and by the General Agreement on Tariffs and Trade (GATT) after 1945, these East Asian mercantilist nations used various nontariff barriers to preserve domestic markets for their national champions, while reaping the benefits of scale by exporting to far more open Western consumer markets. The catch-up strategy of post-Mao China is a version of this East Asian pattern.

Developmentalism has taken quite different forms, in Colbert's France and Walpole's Britain, Hamilton's and Lincoln's America, Bismarck's Germany, and contemporary East Asia. While methods vary, a constant has been the understanding of global trade not as a rule-governed arena in which firms should compete for customers with no regard for borders but as a zero-sum competition for global market share in high-value-added industries among rival states.

In liberal economic ideology, questions of trade and questions of national security are unrelated. But from the perspective of developmentalism, relative industrial capacity is the most important basis of relative military power. Great powers, if not lesser states, must constantly worry that the augmentation of the industrial strength of other blocs will also increase their relative military power. Even in periods of peace among great powers and the blocs they lead, each power must prepare for the possibility, however remote, of conflict with the others. Within a tightly integrated bloc of allied nations, transnational liberalization may be the order of the day. But relations between blocs are likely to be guided by the zero-sum logic of cautious, suspicious, military-inflected developmentalism.

With these dynamics in mind, we can speculate about the future of the world economy and its implications for new domestic settlements among managers and workers.

First, the rise of China, followed perhaps by the rise of India, is likely to produce a world order by 2050 in which most of the global GDP is produced inside the borders of China, India, the United States, and Europe—three colossal nation-states and one politically divided region. To update Orwell, the future blocs may be Eastasia, Southasia, Oceania, and perhaps Europa. The world will be truly multipolar.

In a world of competitive great powers and great-power blocs, the most familiar version of developmentalism (the East Asian export-oriented industrial strategy) will be impossible for political reasons. The United States tolerated one-sided trade with its East Asian satellites and Germany (whose mercantilism is real but more subtle) only because it needed their support in the Cold War and their economies were much smaller than America's. It will make no sense for the United States to tolerate similar mercantilist trade policies at the expense of American industries, particularly those relevant to defense, carried out by China—the only "peer competitor" the United States will face in the foreseeable future in the military realm.

Even before the election of Donald Trump, the United States was already acting as a declining post-hegemonic power with a reawakened sense of strategic economic nationalism. The failed TPP was sold to the American public as a way to defeat China in competition for markets in Asia, the counterpart to the Obama administration's "pivot" toward de facto military containment of China. The TTIP, which would have deepened Euro-American integration without Chinese participation, was motivated in part by a desire to balance the rising geoeconomic influence of China.

If the United States is growing less willing to act as "the patsy" (Martin Wolf's term), offering unreciprocated access to its markets for the goods of mercantilist states at the expense of its own producers, and if no other major nation or bloc is willing to be a similar "patsy," then the kind of parasitic export-oriented strategy pursued by Japan, the Little Tigers, China, and Germany cannot succeed. At the same time, classic import substitution strategies, like the radical renationalization strategy discussed above, are also rejected by the major economic powers, because they seek markets for goods and services beyond their borders to reap the benefits of scale in increasing-returns industries. By default, then, the economic system in a world of multiple great-power blocs is likely to resemble that of the European colonial empires.

There are differences, to be sure. The old colonial hierarchy, with industry monopolized by the metropoles and commodity production in the colonies, would be replaced by a new hierarchy, in which the metropoles reserve the higher links of transnational value chains for themselves while lesser allies and protectorates are ceded lower-value-added production.

Within the dominant nation in a military-economic bloc, it would be wise to design a new cross-class social settlement to reinforce rather than undercut the long-term productivity growth both of the nation and the bloc it leads. There would need to be two strategies, one for traded-sector industries like manufacturing with potential foreign markets, and one for nontraded domestic industries that can only be performed in situ, like nursing care and other personal services.

A new developmentalist strategy for traded-sector industries, by means of a mix of incentives and compulsion, should discourage corporations from seeking to boost profits by labor arbitrage, tax arbitrage, and financial machinations like stock buy-backs and corporate inversions. In times of great-power peace, a considerable amount of trade among the great powers might be permitted, but each great power would intervene rather than permit market forces or foreign industrial policy from eliminating critical industries, particularly those relevant to the military.

In the nontraded domestic-service sector, a new developmental state, in the spirit of Hippocrates, would emphasize doing no harm—no harm, that is, to the all-important high-value national traded sector. Tight labor markets for domestic service workers, achieved by immigration restriction, work-sharing, shorter workweeks, or other means, should be looked on favorably by policymakers, for several reasons. Higher market wages for service workers would mean a larger domestic market, a true mass market capable of supporting large-scale industries at home as a base for foreign expansion. At the same time, higher market wages in the domestic service sector would encourage automation and other kinds of labor-saving strategies, boosting service-sector productivity and perhaps increasing domestic demand for labor-saving machinery and software that can be produced in the nation or the bloc. If high wages lead to the replacement of fast-food workers by kiosks, the manufacture of the kiosks could become a new, capital-intensive, high-technology industry.

Competition and Countervailing Power

The decline of the liberal globalism that flourished briefly in the passing phase of post–Cold War American hegemony, as a result of the inevitable transition to multipolarity, may be dreaded by managerial elites, but the working classes of the West and the world may benefit.

History demonstrates that ruling classes of any kind are reluctant to share power with the ruled unless they are afraid of the ruled or afraid of rival ruling classes. The former—fear of the ruled—is a weak motive. Popular revolts seldom turn into revolutions, without the support of dissident members of a ruling class or of a foreign elite, like the French monarchy that bankrolled and supported U.S. independence for its own purposes.

The need to mobilize the population for war, or at least the need to obtain social peace in wartime, has been far more important as a source of democratizing reforms. From the Greek city-states to the Swiss cantons, citizen-soldiers have been able to use their contribution to defense to demand rights and representation. In the United States, the Emancipation Proclamation and the GI Bill were both wartime measures.

Following the end of the Cold War, the abolition in most Western countries of conscription and the shift by the United States and other countries to professional soldiers, mercenaries (contractors), and foreign proxies has reduced the importance of the citizen-soldier, even as offshoring and mass immigration reduced the bargaining power of the citizen-worker. Mass conscript armies are as unlikely to be restored in the United States and similar countries as mass-production assembly lines that can be crippled by strikes. And the kind of low-level warfare that the United States has engaged in since 9/11 requires little sacrifice on the part of most Americans, who conversely cannot use their sacrifice to demand a greater share of power and wealth.

Nevertheless, great-power competition, even in the form of limited cold wars, is likely to reward nations whose economic model is based on developing productive technology and raising the incomes of domestic worker-consumers, rather than engaging in labor and tax arbitrage, regulatory harmonization, and other schemes that boost profits without increasing productivity. In cold wars and trade wars, even if no blood is shed by the contenders, countries and blocs with empowered and patriotic workers are likely to do better than rival nations crippled by immiserated workforces and selfish, nepotistic, oligarchic elites.

In a geopolitical contest between the developmental model represented in different ways by Japan and China, minus their current “export-über-alles” mercantilism, on the one hand, and, on the other hand, the rentier-dominated oligarchic model represented by Brazil and Mexico, it would be foolish to wager on the latter. North American and European democracies cannot and should not emulate modern East Asian developmental states in every detail. Still, it should be a cause for concern that, since the Cold War, the United States and Western Europe have been moving along the spectrum, as it were, away from Asia toward Latin America.

Managerial elites are bound to dominate the economy and society of every modern nation. But if they are not checked, they will overreach and produce a populist backlash in proportion to their excess. By a misguided policy of suppressing wages and thus throttling mass consumption, unchecked managerial elites may inadvertently cripple the technology-driven productivity growth responsible for their rise and accidentally cause the replacement of managerial society itself by a kind of high-tech rentier feudalism.

Managerial society works best when there are not only concessions to national working-class economic interests—the bribes to the “losers” of neoliberalism—but also genuine economic bargaining power and political power wielded by the many. Far from undermining managerial regimes, Burnham's "juridical check" and Galbraith's "countervailing power" make them more legitimate and sustainable.

And as long as geopolitical conflict does not escalate into the horrors of world wars, restrained rivalry among great-power blocs is a price worth paying to preserve a politically diverse world. In the words of Hobson in 1902: "The hope of a coming internationalism enjoins above all else the maintenance and natural growth of independent nationalities, for without such there could be no gradual evolution of internationalism, but only a series of unsuccessful attempts at a chaotic and unstable cosmopolitanism."

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The Western Elite from a Chinese Perspective

PUZHONG YAO

The Evangelical Christians I have met in the United States often talk about how reading the Bible changed their lives. They talk about being born again.

I am not an Evangelical Christian. I am a Chinese atheist who came to the West to study at the world's best universities and, later, to work at one of capitalism's greatest companies, Goldman Sachs.

But, like the Evangelical Christians, my life was changed by a book. Specifically, Robert Rubin's autobiography *In an Uncertain World* (Random House, 2003). Robert Rubin was Goldman Sachs's senior partner and subsequently secretary of the Treasury. Only later did I learn that certain people in the United States revere him as something of a god.

I first bought the book because I was puzzled by the title, especially coming from a man who had achieved so much. I had always thought that things happen for reasons. My parents taught me that good people get rewarded while evil gets punished. My teachers at school taught me that if you work hard, you will succeed, and if you never try, you will surely fail. When I picked up the book, I was studying math at Cambridge University and, as I looked back at the standardized tests and intense study that had defined my life until then, I could see no uncertainty.

But since reading Rubin's book, I have come to see the world differently. Robert Rubin never intended to become the senior partner of Goldman Sachs: a few years into his career, he even handed in his resignation. Just as in Rubin's career, I find that maybe randomness is not merely the noise but the dominant factor. And those reasons we assign to historical events are often just ex post rationalizations. As rising generations are taught the rationalizations, they conclude that things always happen for a reason. Meanwhile, I keep wondering: is there someone, sitting in a comfortable chair somewhere, flipping a coin from time to time, deciding what happens in the world?

Most Americans that I have met seem confused about this question. Perhaps it is understandable since most of them are not in finance and have not read Rubin's book. Their goal is always to *change* something—Stanford business school's motto is "change lives, change organizations, change the world"—though they rarely seem to know what or how. Or what the role of chance and circumstance is. But if the goal is to change something, they must have the ability to determine the future, mustn't they? The great American dream itself is a determination to take control of one's own destiny and live an extraordinary life from an ordinary background. Yet how is this possible in Rubin's uncertain world?

I don't claim to be a modern-day Alexis de Tocqueville, nor do I have much in common with this famous observer of American life. He grew up in Paris, a city renowned for its culture and architecture. I grew up in Shijiazhuang, a city renowned for being the headquarters of the company that produced toxic infant formula. He was a child of aristocrats; I am the child of modest workers.

Nevertheless, I hope my candid observations can provide some insights into the elite institutions of the West. Certain beliefs are as ubiquitous among the people I went to school with as smog was in Shijiazhuang. The doctrines that shape the worldviews and cultural assumptions at elite Western institutions like Cambridge, Stanford, and Goldman Sachs have become almost religious. Nevertheless, I hope that the perspective of a candid Chinese atheist can be of some instruction to them.

From Shijiazhuang to Cambridge

It was the summer of 2000. I was 15, and I had just finished my high school entrance exam in China. I had made considerable improvements from where I started in first grade, when I had the second- worst grades in the class and had to sit at a desk perpendicular to the blackboard so that the teacher could keep a close eye on me. I had managed to become an average student in an average school. My parents by then had reached the conclusion that I was not going anywhere promising in China and were ready to send me abroad for high school. Contrary to all expectations, however, I got the best mark in my class and my school. The exam scores were so good that I ranked within the top ten among more than 100,000 students in the whole city. My teacher and I both assumed the score was wrong when we first heard it.

As a consequence, I got into the best class in the best school in my city, and thus began the most painful year of my life. My newfound confidence was quickly crushed when I saw how talented my new classmates were. In the first class, our math teacher announced that she would start from chapter four of the textbook, as she assumed, correctly, that most of us were familiar with the first three chapters and would find it boring to go through them again. Most of the class had been participating in various competitions in middle school and had become familiar with a large part of the high school syllabus already. Furthermore, they had also grown to know each other from those years of competitions together. And here I was, someone who didn't know anything or anyone, surrounded by people who knew more to begin with, who were much smarter, and who worked just as hard as I did. What chance did I have?

During that year, I tried very hard to catch up: I gave up everything else and even moved somewhere close to the school to save time on the commute, but to no avail. Over time, going to school and competing while knowing I was sure to lose became torture. Yet I had to do it every day. At the end-of-year exam, I scored second from the bottom of the class—the same place where I began in first grade. But this time it was much harder to accept, after the glory I had enjoyed just one year earlier and the huge amount of effort I had put into studying this year. Finally, I threw in the towel, and asked my parents to send me abroad. Anywhere else on this earth would surely be better.

So I came to the UK in 2001, when I was 16 years old. Much to my surprise, I found the UK's exam-focused educational system very similar to the one in China. What is more, in both countries, going to the "right schools" and getting the "right job" are seen as very important by a large group of eager parents. As a result, scoring well on exams and doing well in school interviews—or even the play session for the nursery or pre-prep school—become the most important things in the world. Even at the university level, the undergraduate degree from the University of Cambridge depends on nothing else but an exam at the end of the last year.

On the other hand, although the UK's university system is considered superior to China's, with a population that is only one-twentieth the size of my native country, competition, while tough, is less intimidating. For example, about one in ten applicants gets into Oxbridge in the UK, and Stanford and Harvard accept about one in twenty-five applicants. But in Hebei province in China, where I am from, only one in fifteen hundred applicants gets into Peking or Qinghua University.

Still, I found it hard to believe how much easier everything became. I scored first nationwide in the GCSE (high school) math exam, and my photo was printed in a national newspaper. I was admitted into Trinity College, University of Cambridge, once the home of Sir Isaac Newton, Francis Bacon, and Prince Charles.

I studied economics at Cambridge, a field which has become more and more mathematical since the 1970s. The goal is always to use a mathematical model to find a closed-form solution to a real-world problem. Looking back, I'm not sure why my professors were so focused on these models. I have since found that the mistake of blindly relying on models is quite widespread in both trading and investing—often with disastrous results, such as the infamous collapse of the hedge fund Long-Term Capital Management. Years later, I discovered the teaching of Warren Buffett: it is better to be approximately right than precisely wrong. But our professors taught us to think of the real world as a math problem.

The culture of Cambridge followed the dogmas of the classroom: a fervent adherence to rules and models established by tradition. For example, at Cambridge, students are forbidden to walk on grass. This right is reserved for professors only. The only exception is for those who achieve first class honors in exams; they are allowed to walk on one area of grass on one day of the year.

The behavior of my British classmates demonstrated an even greater herd mentality than what is often mocked in American MBAs. For example, out of the thirteen economists in my year at Trinity, twelve would go on to join investment banks, and five of us went to work for Goldman Sachs.

Goldman Sachs and My Brilliant Inflation Trade

Three years later, I graduated with first class honors and got a job offer from Goldman's Fixed Income, Currency and Commodity division, the division founded by my hero Rubin. It seemed like whatever I wished would simply come true. But inside, I feared that one day these glories would pass. After all, not long ago, I was at the bottom of my class in China. And if I could not even catch up with my classmates in a city few people have even heard of, how am I now qualified to go to Cambridge University or Goldman?

Have I gotten smarter? Or is it just that British people are stupider than the Chinese?

With these mixed thoughts, I began working as a trader at Goldman in 2007. Goldman's unofficial motto is "be long-term greedy." I found that my Goldman colleagues were very smart and competitive. However, I actually didn't see much of the "long-term" part of the "long-term greedy" culture. Goldman Sachs, even with its reputation as the top investment bank, has been involved in scandals in mortgage products, trades with the Greek government, its links with Malaysia's corrupt 1MDB, and so on. Maybe this is due to the fact that Goldman is now a public company with a quarterly earnings call. Maybe it is because the position of the trading desk where I worked was marked to market in real time. When you see the number change in front of you from second to second—and especially when that number is not going in the right direction—even one day can feel like eternity. That tells you how long-term oriented traders are in general.

My job at Goldman was a mixture of making markets to facilitate client trades and finding trades for the bank's own book. In early 2009, I believed it was an excellent trade to go long UK inflation. In fact, I thought it was such a good trade that my biggest worry was that there wouldn't be anyone who would want to be on the other side of it. Yet we managed to put this trade on versus a British bank. In the following year, the trade worked wonders, with UK inflation steadily rising, making the bank tens of millions in profits.

I thought I was an amazing trader. But there was a slight problem: I wanted to do the trade because I thought the market was pricing UK interest rates to go up. And when interest rates go up, UK inflation would rise mechanically due to the way it is defined and calculated. But in that year, the Bank of England didn't raise interest rates at all. Rather, the increase in inflation was due to things like tax increases, exchange rate fluctuations, oil price moves, etc.—things I didn't anticipate at all. It was pure luck that I made money, and I made it for the wrong reason.

When I was an intern, in one of the training presentations, a senior banker told us to distinguish between the process and the results. He said that we should focus on the process, which we can control, rather than the result, which is subject to luck. And here at Goldman, he said, we don't punish people for losing money for the right reason. I have always loved asking questions, so I asked him, was anyone ever punished for making money for the wrong reason? After giving it some thought, he said that he had not heard of any such thing. And he was right. In fact, no one seemed to remember the reason I did the inflation trade at all. They only remembered that I did this trade and that it worked well.

When I met with my manager for a performance review after this, I was expecting to be berated for my poor judgment. Instead, I got promoted! I told my manager that it was a mistake, but he merely said, "Puzhong, tell no one." He too was promoted on the basis of managing my "brilliant" trade. In fact, my manager was so proud of my work he recommended me to Stanford's prestigious Graduate School of Business (GSB), and I soon set off for America.

One thing that I learned at Goldman was that, to rise through the ranks, it was not enough to just be a good trader. It was also essential to be able to manage one's boss, other colleagues, and those who report to them. I never paid any attention to those things. I hoped to learn about them in business school.

Coming to America

To me, Costco represents the best of American capitalism. It is a corporation known for having its customers and employees in mind, while at the same time it has compensated its shareholders handsomely over the years. To the customers, it offers the best combination of quality and low cost. Whenever it manages to reduce costs, it passes the savings on to customers immediately. Achieving a 10 percent gross margin with prices below Amazon's is truly incredible. After I had been there once, I found it hard to shop elsewhere.

Meanwhile, its salaries are much higher than similar retail jobs. When the recession hit in 2008, the company increased salaries to help employees cope with the difficult environment. From the name tags the staff wear, I have seen that frontline employees work there for decades, something hard to imagine elsewhere.

Stanford was for me a distant second to Costco in terms of the American capitalist experience. Overall, I enjoyed the curriculum at the GSB. Inevitably I found some classes less interesting, but the professors all seemed to be quite understanding, even when they saw me reading my kindle during class.

One class was about strategy. It focused on how corporate mottos and logos could inspire employees. Many of the students had worked for nonprofits or health care or tech companies, all of which had mottos about changing the world, saving lives, saving the planet, etc. The professor seemed to like these mottos. I told him that at Goldman our motto was "be long-term greedy." The professor couldn't understand this motto or why it was inspiring. I explained to him that everyone else in the market was short-term greedy and, as a result, we took all their money. Since traders like money, this was inspiring. He asked if perhaps there was another motto or logo that my other classmates might connect with. I told him about the black swan I kept on my desk as a reminder that low probability events happen with high frequency. He didn't like that motto either and decided to call on another student, who had worked at Pfizer. Their motto was "all people deserve to live healthy lives." The professor thought this was much better. I didn't understand how it would motivate employees, but this was exactly why I had come to Stanford: to learn the key lessons of interpersonal communication and leadership.

On the communication and leadership front, I came to the GSB knowing I was not good and hoped to get better. My favorite class was called "Interpersonal Dynamics" or, as students referred to it, "Touchy Feely." In "Touchy Feely," students get very candid feedback on how their words and actions affect others in a small group that meets several hours per week for a whole quarter.

We talked about microaggressions and feelings and empathy and listening. Sometimes in class the professor would say things to me like "Puzhong, when Mary said that, I could see you were really feeling something," or "Puzhong, I could see in your eyes that Peter's story affected you." And I would tell them I didn't feel anything. I was quite confused.

One of the papers we studied mentioned that subjects are often not conscious of their own feelings when fully immersed in a situation. But body indicators such as heart rate would show whether the person is experiencing strong emotions. I thought that I generally didn't have a lot of emotions and decided that this might be a good way for me to discover my hidden emotions that the professor kept asking about.

So I bought a heart rate monitor and checked my resting heart rate. Right around 78. And when the professor said to me in class "Puzhong, I can see that story brought up some emotions in you," I rolled up my sleeve and checked my heart rate. It was about 77. And so I said, "nope, no emotion." The experiment seemed to confirm my prior belief: my heart rate hardly moved, even when I was criticized, though it did jump when I became excited or laughed.

This didn't land well on some of my classmates. They felt I was not treating these matters with the seriousness that they deserved. The professor was very angry. My takeaway was that my interpersonal skills were so bad that I could easily offend people unintentionally, so I concluded that after graduation I should do something that involved as little human interaction as possible.

Therefore, I decided I needed to return to work in financial markets rather than attempting something else. I went to the career service office and told them that my primary goal after the MBA was to make money. I told them that $500,000 sounded like a good number. They were very confused, though, as they said their goal was to help me find my passion and my calling. I told them that my calling was to make money for my family. They were trying to be helpful, but in my case, their advice didn't turn out to be very helpful.

Eventually I was able to meet the chief financial officer of my favorite company, Costco. He told me that they don't hire any MBAs. Everyone starts by pushing trolleys. (I have seriously thought about doing just that. But my wife is strongly against it.) Maybe, I thought, that is why the company is so successful—no MBAs!

An Uncertain World

In Communism, the future is certain; it is only the past that might not be. A few years ago, I was reading an autobiography of a Chinese girl named Nian, who went to study in the UK when she was young. (Someone once said that it is necessary to know English in order to learn about China. Important perspectives on China are only available in English and are generally not accessible on the mainland.) She studied at the London School of Economics and met her husband. After graduation, Nian, her husband, and all their friends went back to China.

Her life, up to that point, was very similar to the life that I have been living. And I am sure that, at the time, she was as optimistic about her life as we are today about ours. But she went to the UK in 1935, and she went back to China around the founding of the People's Republic of China. Her education abroad, in a capitalist country, and her belief in individual rights and freedom often placed her on the wrong side of various political campaigns and the Cultural Revolution. She lost numerous friends and family members, including her husband and daughter during these years.

She barely survived a long period of imprisonment herself. It was not until the 1980s when she managed to get a passport and could move to live with her relatives abroad. On the ship to Hong Kong, she kept thinking about her decision to return to China all those years ago.

As I finished her story, I kept thinking about the similarities and differences between Nian's life and my own. What would have happened to her if she was living in the present time, or what would happen to me if I had been born seventy years earlier? What I realized is that if we look at one individual's life in isolation, it is very tempting to come to the conclusion that one's particular actions lead to whatever happens next. But if we look at the society as a whole or look across generations, we can see that people with very similar backgrounds can take similar actions and end up with vastly different results.

Warren Buffett has said that the moment one was born in the United States or another Western country, that person has essentially won a lottery. If someone is born a U.S. citizen, he or she enjoys a huge advantage in almost every aspect of life, including expected wealth, education, health care, environment, safety, etc., when compared to someone born in developing countries. For someone foreign to "purchase" these privileges, the price tag at the moment is $1 million dollars (the rough value of the EB-5 investment visa). Even at this price level, the demand from certain countries routinely exceeds the annual allocated quota, resulting in long waiting times. In that sense, American citizens were born millionaires!

Yet one wonders how long such luck will last. This brings me back to the title of Rubin's book, his "uncertain world." In such a world, the vast majority things are outside our control, determined by God or luck. After we have given our best and once the final card is drawn, we should neither become too excited by what we have achieved nor too depressed by what we failed to achieve. We should simply acknowledge the result and move on. Maybe this is the key to a happy life.

On the other hand, it seems odd that this should be the principal lesson of a Western education. In Communist China, I was taught that hard work would bring success. In the land of the American dream, I learned that success comes through good luck, the right slogans, and monitoring your own—and others'—emotions.

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content. In today's climate of widespread misinformation, Outline empowers readers to verify the facts.

The New Shape of Globalization

CLYDE PRESTOWITZ JANUARY 16, 2017

The symbolism was rich. As a result of comments by President Donald Trump that his new administration might take a tougher line on trade policy than all U.S. administrations since World War II, the Davos crowd was uneasy. The elite gathering of global billionaires, celebrities, scholars, bankers, heavyweight pundits, CEOs, and upwardly mobile government officials cheered as the leader of the Chinese Communist Party promised to take over from an apparently faltering United States and lead each Davos Man into the glorious nirvana of ultimate globalization. Xi's remarks reassured them that with China, at least, it would be business as usual and that their lifestyles would be safe.

Globalization with Chinese Characteristics?

Yet, for the Americans who had elected Trump, and even for those who had voted against him but who had supported Senator Bernie Sanders, this business as usual was precisely the problem. And no leader symbolized this better than Xi. Here was the newly anointed "core leader" of the Chinese Communist Party appointing himself captain of the globalization team. But what is his approach to globalization?

Xi's approach starts with a state-controlled and censored Internet. It means banning companies that offer freedom of information, like Google and Facebook, from the Chinese market. It means strict controls on foreign investment in China while Chinese corporations go on shopping sprees in the rest of the world. It means that, in order to enter the Chinese market, foreign companies are required to invest in China, to export from China, and to transfer technology to China. It means that the exchange rate of the Chinese yuan is managed by the government, not freely determined by the currency markets like the euro and the U.S. dollar. It means investment subsidies for a broad range of key Chinese manufacturers and exporters. It means warnings of possible problems for Samsung's business in China if the South Korean government obtains an American anti-missile defense system. In short, it means nationalistic mercantilism. This is what the masters of the universe in Davos were actually embracing.

But it is precisely this kind of mercantilism that the post–World War II founders of the global trading system had sought to avoid. It is the ongoing lack of success in the battle against mercantilism that has created the constant gap between the promises and the results produced by generations of American trade negotiators. And it was to respond to this gap that American voters just elected Donald Trump to the presidency.

Although none of these points were included in any of the pundits' dispatches from Davos, historians looking back from the future might well identify this moment—when the world elite embraced Chinese-style mercantilism—as the moment when the era of the liberal free trade movement finally ended.

From Bretton Woods to the Japanese Miracle

The free trade movement was, of course, rooted in the pre–World War II turmoil of stock market crashes, wartime debt hangovers, depression, mercantilist currency devaluations, and tariff increases. The establishment of a system to prevent a replay of this 1930s mercantilism began in 1944 at Bretton Woods, New Hampshire. To avert competitive currency devaluations, a system of fixed exchange rates was established with all other currencies valued to the dollar at a set rate and with the dollar valued at a set rate to gold. To avert financial crises, capital markets were essentially closed. And to avert protectionism, a doctrine of free trade was established along with a system for negotiation of continual reductions in tariffs and trade barriers and for the adjudication of disputes.

The goal of Bretton Woods was for the trade system's members to remain in rough balance. Indeed, the International Monetary Fund (IMF) was created to provide emergency financing and rescue plans for countries that might find themselves with large trade deficits and inadequate reserves of dollars and gold. At the time, the British representative to the discussions, John Maynard Keynes, argued forcefully that in addition to loans for deficit countries, the IMF should also be empowered to impose tariffs on the exports of countries with large, chronic trade surpluses. As the country with the then-largest surpluses, the United States was not receptive to this proposal, and it was not formally adopted. But it was expected that the member countries of the trading system would maintain roughly balanced trade accounts. Otherwise, trade-related unemployment might become a problem.

It all worked splendidly for about twenty years, during which time the United States enjoyed its greatest ever economic boom. This period also encompassed the German and Japanese economic miracles. By the late 1960s, however, the system was seriously out of balance. The exchange rates fixed in 1948 had not been changed despite the dramatic shifts in productivity that had occurred in many countries and especially in Germany and Japan as they recovered from the war. The United States began to have balance-of-payments problems with some countries and was continually shipping gold from Fort Knox to the likes of the United Kingdom and France. Then, in 1971, America accumulated its first trade deficit since 1888, in the amount of $2 billion. In 1972, with gold flowing out of the country like a big yellow river, President Nixon ended the fixed exchange-rate system by removing the dollar peg to gold and allowing its value to be determined entirely by market forces in the global currency exchanges. That resulted in a revaluation of the German mark and the Japanese yen along with other currencies and, for a while, provided relief to U.S. producers and Fort Knox. But by 1980, the U.S. trade deficit was back, and it was not $2 billion. It was $20 billion. Of course, a lot of things had been happening in the world of trade, including the introduction of roll-on-roll-off containerized shipping, the advent of jet travel, and the development of faster communications. In addition, major trading countries like Japan had adopted increasingly mercantilist policies.

Free trade theory stipulates that countries should concentrate on producing and exporting what they did best while importing the rest. But Japan and some others chose not to accept that reasoning. As Naohiro Amaya, an architect of the Japanese economic "miracle," once explained to me, "we did the opposite of what the Americans told us." He pointed out that the key elements of the miracle model included the protection of domestic markets, export-led growth, government-guided investment in industries with economies of scale (steel, ship-building, autos, semiconductors, etc.), a managed currency undervalued versus the dollar, and technology transfer as a condition of foreign investment in the domestic market.

This was not Adam Smith's famous "unseen hand," nor was it free trade as imagined by Anglo-American economists, such as David Ricardo. It was mercantilist "catch up" industrial policy, and it worked so well that it was quickly imitated by Korea, Taiwan, Singapore, and most other developing countries, as well as many developed countries, in various ways (e.g., Germany, Switzerland). The combination of these strategic trade policies plus growing international flows of finance and technology and the impact of international economies of scale negated some of the fundamental assumptions of the free trade system. What a country did best was not necessarily predetermined by resource availability. It could be changed for the better by clever policies.

This is what Naohiro Amaya meant when he spoke of rejecting American advice on free trade. He was not in the business of "unseen hands." He was in the business of picking winners. It was by the government's picking and strong backing of winners that South Korea (one of the world's poorest countries in 1960 with no natural resources, no capital, and virtually no skilled labor) came to be a major player in the steel, auto, and semiconductor industries.

Theory and Practice in American Trade Policy

But the notion of government picking winners and losers with trade policy was contrary to the American suspicion of government intervention as well as to powerful U.S. geopolitical interests, not to mention established academic orthodoxy on free trade. When the U.S. trade deficit hit $50 billion in the mid-1980s, Treasury Secretary James Baker eventually concluded another agreement to revalue the Deutschmark and the yen in 1985. That again eased the pressure of the trade imbalances, but the American economic and foreign policy elite firmly maintained the orthodoxy that more and better free trade agreements were chiefly what was needed to ensure equitable trade. They continued to insist that trading partners were adhering to American assumptions and values regarding how international markets should work.

During succeeding administrations, free trade advocates pushed through a string of trade deals—including the Uruguay Round (1986–1994), the North American Free Trade Agreement (NAFTA) in 1994, establishment of the World Trade Organization (WTO) in 1995, China's accession to the WTO in 2001, the United States-Korea free trade agreement (KORUS FTA) in 2007, and, most recently, the proposed TPP. Not surprisingly, these deals resulted in a steady increase of the annual U.S. trade deficit from $20 billion in 1980 to approximately $500 billion today. Meanwhile, the offshoring of U.S. production continued—not only in labor-intensive industries but also in the capital- and technology-intensive industries in which America is supposed to be competitive. During that time, the gap widened significantly between the top one percent of earners and the rest.

However, as the elite persisted in its fixation with orthodox, Anglo-American free trade doctrine, the public and their politicians increasingly developed doubts. For instance, Congress voted 395-7 in support of the Tokyo Round free trade deal of 1979 and 366-40 for the Canada-U.S. Free

Trade Agreement of 1988. By 1993, Bill Clinton was able to get NAFTA through the House by a margin of only 234-200 and was unable to obtain new approval for negotiating more trade deals. President George W. Bush was able to get the Central American Free Trade Agreement through the House by only two votes in 2005.

The difference between what trade proponents advertised and what actually occurred had become impossible for voters to ignore. Advocates of globalization repeatedly promised that trade would be win-win, that more and freer trade (and investment) would produce more jobs and rising wages even as it delivered lower consumer prices. Although they admitted that some workers might be displaced or disadvantaged, they invariably argued that there would be more winners than losers and that the winners would compensate the losers. In fact, however, as the U.S. trade deficit climbed inexorably, the gap between the top one percent of income earners and the rest also grew considerably. Consumer prices were kept low, but so also were the wages of most earners.

The final nail in the coffin of the conventional free trade doctrine's credibility was the admission of China to the WTO. The Clinton administration argued that it would essentially be a unilateral opening by China, which would have to reduce its high trade barriers, while America would simply keep its low tariffs in place. Analysts predicted that the 2001 U.S. trade deficit of $83 billion with China would drop dramatically in the wake of the deal and that millions of good, new U.S. jobs would be the result. What occurred was quite the opposite. By 2015, the deficit had risen to $370 billion and millions of jobs had been lost while U.S. income inequality continued to rise.

Symbolizing the chasm between the promises and results of globalization is the adoption of Xi Jinping as the champion of Davos Man. President Xi and China have never been playing by the Anglo-American rules or assumptions. This is also true of many of the world's leading and most rapidly growing economies such as South Korea, Japan, Singapore, and Sweden. The failure of America's elite to learn from experience and its obstinate adherence to a flawed set of theories contributed to the strong campaign of Bernie Sanders for the Democratic Party nomination and the election of President Trump.

Achieving Balanced Trade

The overall objective of a new American trade and globalization policy should be to achieve roughly balanced trade over the long term while maintaining a strong, domestically based wealth-producing capacity. Such an approach would mean fully utilizing American human and capital resources, thus reducing or eliminating the inefficiencies resulting from today's high rate of underemployment. U.S.-based producers, as a result, would enjoy higher profits which, in turn, would stimulate greater investment, R&D, and skills training. By eliminating the chronic trade deficit, balanced trade would lead to increased economic growth as domestic production supplied not only more of domestic demand but was also bolstered by growth in newly competitive exports. America would be able to stop borrowing abroad to pay for what it could produce domestically at competitive prices if exchange rates were properly established. Balanced trade would also mean more revenue for the U.S. government, even under a reduced tax rate regime, lower expenditures on both corporate and individual welfare, and smaller budget deficits. Moreover, research from former World Bank economist John Hansen indicates that balanced trade results in more equal patterns of domestic income distribution. Thus, fewer Americans would feel as if they are being left out of the American dream.

The most important step toward establishing balance must be to establish an exchange rate system that fairly and continually reflects roughly the true value of the range of global currencies. To this end, the U.S. should reverse the Commerce Department's policy of not applying countervailing duty remedies to currency subsidies. At the moment, the Petersen Institute's C. Fred Bergsten estimates that a 25% tariff is levied on foreign imports of all American goods and services while a similar amount of subsidy is provided for all exports to America by the chronic overvaluation of the dollar. Not only would adjustment of this overvaluation contribute greatly toward achieving balanced trade, but it would also simplify negotiation of other elements of trade. Rules of origin, tariff rate adjustment, and rules for judging whether dumping is occurring would all be simpler to negotiate and of less importance if exchange rates were properly set and adjusted. Or consider interest rates: the Fed has been reluctant to raise rates, in part, due to fear that doing so could strengthen the dollar, increase the U.S. trade deficit, and thereby cause a slower recovery. The creators of the postwar global economic system understood that before they could even speak of trade, they had to establish a sensible currency system that would tend to keep trade roughly balanced.

In view of the failure of that system and the subsequent floating rate system, a new one must be developed. For the time being, the dollar may remain the principal global reserve currency, but U.S. trade must also remain in rough, long-term balance. In order to achieve such a balance, costs must be imposed on countries that accumulate chronic trade surpluses, as John

Maynard Keynes recommended back in 1948. One efficient way of doing this would be to adopt a currency corrective such as the Market Access Charge (MAC) system, as Hansen has argued. This system can be thought of as a kind of "peak load pricing" mechanism similar to those used by electricity utilities, airlines, rental car companies, and hotel operators. At specified points, a charge would be imposed on capital investment entering the United States. For example, suppose the U.S. trade deficit exceeded one percent of GDP over the preceding twelve months. That would trigger automatic imposition of a MAC of, say, 50 basis points on the value of incoming foreign capital. The rate might increase if the deficit became larger or persisted for another six months. Of course, the rate would decline as the trade deficit declined so that it would again be zero once the trade deficit fell below one percent of GDP. The system would essentially be automatic and would be administered by the Fed.

A set rate for all capital inflows would discourage short-term speculation. But because such investment comes only once, stays put, and yields higher returns than speculative flows, it would impose only a minuscule burden on direct foreign investment. The charge would be collected electronically and automatically by the computer systems already existing in the banks that handle most cross border U.S. financial transactions. The funds would be transferred to the U.S. Treasury where they would be deposited into an American International Competitiveness Account (AICA) that would be dedicated to investment in R&D, the National Network for Manufacturing Innovation, worker training, adjustment assistance programs. Such funds could also be used for infrastructure development, to offset costs associated with the enforcement of trade agreements, and to offset any increased costs of borrowing linked to MAC charges on the purchase of government debt obligations.

Because the U.S. trade deficit is a well-established and easily available objective statistic that directly reflects the misalignment of the dollar, it points to an easier path for identifying foreign currency manipulation. Currently, the designation of a foreign country as a currency manipulator depends on the difference between the market exchange rate and the "fundamental equilibrium exchange rate." Under the MAC system, there would be no pejorative element in assigning the "manipulator" label, and thus there would be no need to consider a particular country's strategic importance to the United States in taking action to balance trade. Furthermore, the MAC would be completely in accord with existing IMF and WTO rules and would act to reduce the number and intensity of anti-dumping and other trade disputes being adjudicated by that body.

The Offshoring Dilemma

The second major problem for the United States in the current global system is that of American foreign investment and the so-called offshoring of production and jobs. Often, countries with strategic economic policies use investment incentives as a way of causing the transfer of production from other countries to themselves, even when the original countries were perfectly internationally competitive. Destination countries may not have lower actual operating costs, but they may waive taxes for ten or twenty years, or provide free land for production and office facilities, provide utilities at a reduced rate, provide capital grants, and so forth. State benefits such as these have nothing to do with so-called comparative advantage and everything to do with indirectly subsidizing production in order to shift the location of comparative advantage to the sponsoring country. Although there is nothing illegal about this under WTO and IMF rules, it is at odds with the whole notion of competitive markets.

The United States is half in and half out of this game. It does not play at the federal level, but the individual states do play. Washington does not offer special benefits to, say, BMW, in order to persuade it to locate an auto assembly plant in the United States. But the state of Alabama or South Carolina may do so. The difference between these local benefits and an offer of investment benefits by another country like Ireland, Singapore, or France is that U.S. states simply do not have the resources or authority to make the kind of big offers that a national government can. For instance, Alabama cannot offer to suspend federal corporate income taxes nor does it have the resources to make the same kind of capital grants as a nation state. The United States, consequently, tends not to do as well in the game of attracting foreign direct investment and transfer of production as some other countries. Over time, this has the effect of creating a structural trade deficit for America and erasing what should be its natural centers of training and production.

On top of this, U.S. corporate tax rates are the world's highest, and the United States is one of only two countries in the world that taxes the overseas earnings of its domestically incorporated companies. Thus GM pays U.S. taxes on its earnings in Germany, but BMW does not pay German taxes on its earnings in the United States. As a result, the big accounting firms make a bundle by dreaming up schemes with names like the "double Irish" and "Singapore Sling" to enable global U.S. corporations to hoard earnings in tax shelters abroad rather than investing in productive activity in America.

There are actually rather straightforward solutions to these problems. One is to stop taxing the foreign earnings of U.S. corporations, and the other is to reduce U.S. effective corporate tax rates from the current 39 percent to somewhere between 15 and 20 percent. This may look like a big tax cut for the global corporations, but as a practical matter, it would actually increase tax revenue by negating all the tax avoidance schemes that now keep actual (as opposed to potential) corporate tax revenue at very low levels. A move by the U.S. in this direction would put enormous pressure on virtually all other countries to adopt similar rates. Washington should, therefore, use this kind of a tax law shift to negotiate a global agreement on corporate tax rates under the WTO.

The second solution is for Washington to establish a war chest with which to respond in kind to the investment incentive offers of other countries. There is precedent for this. In the late 1980s and early 1990s, the United States countered foreign export subsidies by creating a fund and striking back in kind. Simultaneously, Washington led an initiative for a global agreement limiting export subsidies that eventually was adopted as part of the creation of the WTO. Exactly the same kind of effort is now called for to solve the problem of investment incentives.

A third issue of this kind is that of investment driven by conditional market access. Some countries effectively pressure global corporations to transfer technology and production to them as a condition of market access. Of course, this is not a matter of law because any such law would be illegal under WTO rules, but it is a matter of practical and political reality. Washington should closely monitor investment in such jurisdictions and apply counterpressure when conditional market access measures are detected. Such counterpressure could include the withholding of certain export licensing permits on high technology relating to national security, or quid pro quo measures imposed on the corporations of the country in question.

Another major tax issue is that of value-added taxes (VAT). Although the United States does not have a VAT, almost all of its trading partners do. A VAT works by imposing a tax on the value added to a product or service at each step of production. Typically, it amounts to about 20 percent of the end value of the product. In effect, it is a kind of sales tax that is generally rebated to the producer on exports and imposed on imports. Instead of a VAT, the United States imposes an effective tax of about 39 percent of corporate income on American companies. Under WTO rules, this kind of a tax cannot be rebated on exports or imposed on imports. While other countries also have corporate income taxes, the rates are usually much lower than those of the United States. Thus, in practice, the VAT imposed by foreign countries tends to function as a kind of tariff on imports from the U.S. while their VAT rebates function as a subsidy for exports. For years, Washington has tried to persuade its trading partners to accept various remedies, but all to no avail. Since it cannot beat its trading partners in this arena, Washington should join them. The United States should adopt its own VAT system. Not only would this be a major step toward balancing U.S. trade and creating increased investment and jobs in America, it would also raise domestic revenue and be a major step toward balancing the federal budget.

The U.S. might also consider unbinding specified import tariffs. Immediately raising any tariff could give rise to outcries of "trade war," counter-threats, and eventually legal retaliation. By contrast, simply unbinding tariffs could open the door to a series of renegotiations of multilateral, bilateral, and regional agreements without any immediate downside. In this way, the U.S. could redress specific grievances (such as Canadian dairy protectionism, back-door imports of third country beef cattle, and inadequate protection of intellectual property), raise existing legal standards (e.g., on labor, health and environmental standards, industrial subsidies, and the functioning of state-owned enterprises), and, for the first time, achieve effective, enforceable restrictions on issues such as currency misalignment.

Another part of this trade and globalization reform package would be a program to deal actively with the excess capacity and dumping that inevitably arise from the industrial and export led growth policies of key U.S. trading partners. The U.S. secretary of commerce should initiate investigations under Section 232, the national security clause of the trade law, to determine when U.S. industries are being damaged by global excess capacity and should impose charges to halt such activity. At the same time, the secretary should be actively negotiating with the countries having such policies to restrain new investment in industries already suffering from gross excess capacity—such as the steel industry, in which China alone has enough capacity to supply most of the world's needs. In extreme situations, the U.S. could declare an emergency under the International Economic Emergency Powers Act. This approach would involve setting targets for a reduction in the U.S. current account deficit (perhaps on a semiannual basis) and authorizing the application of import tariffs in the event that the targets are not met.

Finally, there is the issue of foreign investment in the United States. In principle, investment is a good thing that creates jobs, rising productivity, and technological advance. But investment can also be predatory. It can be used by state-owned or guided enterprises to strip out technology, transfer production, and shift so called comparative advantage. The Committee on Foreign Investment in the United States should carefully monitor foreign investment from countries or corporations with significant industrial policies and state influence over investment to prevent any such predatory kinds of investment.

Together, these measures would dramatically change the course of America and of the world. They would greatly increase the growth, productivity, and dynamism of the U.S. economy. They would also end the dependence of America on continued borrowing from China, Japan, and other countries. In short, the United States would become richer, more secure, and more independent.

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America's STEM Crisis Threatens Our National Security

ARTHUR HERMAN MAY 29, 2018

On October 4, 1957, a steel sphere the size of a beach ball and bristling with four radio antennae circled the Earth in eight minutes. Dubbed "Satellite-1," or "PS-1" (*Prosteyshiy Sputnik*-1) by its Soviet fabricators, it was the first artificial Earth satellite. The Soviets had launched it into an elliptical low Earth orbit, where it stayed for three weeks before its batteries died. Then it continued silently in a decaying orbit for another two months before burning up in the atmosphere. Its radio signal pulses were easily detectable by ham radio operators, as well as by every national security listening post in the United States and around the world.

The world had a new word—Sputnik—and the United States a new mission: to close the gap in the race for space with the Soviet Union. That urgent sense of mission triggered a revolution in American education. This revolution was spurred not only by the desire to win the space race, but also to get a generation of young Americans excited about and educated in science, technology, engineering, and mathematics—what would be abbreviated as STEM. At stake was victory in the Cold War, and with it the future of freedom and democracy in the struggle against Communism.

The effects of that post-Sputnik revolution helped to put Americans on the moon a little more than a decade later. It continued to reverberate through the computer and dot-com revolutions of the 1980s and 1990s, as well as in the Strategic Defense Initiative and the Pentagon's technological transformation during the same period, sometimes known as the Second Offset Strategy.

Since then, STEM has been a perennial concern for American education experts and politicians. Beginning in the 1980s, there have been new and growing worries that STEM proficiency is declining in America, and with it the future of America's economic and scientific leadership.

Multiple official reports have pointed out the problem—including the most recent one released by the Trump administration this past December. Yet this perennial hand-wringing and all the spending and grants by agencies like the National Science Foundation have had little effect. This failure is reflected not only in a long history of declining test scores relative to other industrialized countries, but also in a decreasing proportion of American students willing to devote themselves to STEM subjects. By 2009, for example, the total number of students in college had grown by more than 50 percent since 1985. But in mathematics and statistics, there were only 15,496 graduates in 2009, not many more than the 15,009 graduates in 1985. More students were studying the visual and performing arts than were studying computer science, math, and chemical engineering combined.[1]

Meanwhile, a new competitor for STEM leadership is looming on the horizon, just as the Soviet Union did in 1950s—namely China. And STEM leadership remains just as vital to our national security—perhaps even more so now than when Sputnik was launched.

Today's Defense Department and other leading experts all agree that the future of America's defense will rely on advanced technologies such as AI, cyber, quantum, robotics, directed energy and hypersonic weapons, and even 3-D printing. The Obama Pentagon began pointing out this reality in 2014, in a series of landmark speeches unveiling what it dubbed the Third Offset Strategy.[2] All of the above technologies will be critical if the United States is to maintain its military superiority over its rivals, including China. They will also require new levels of scientific and engineering aptitude and understanding, not just from their designers but from producers and users, including the next generation of warfighters.

This is particularly, even acutely, true of quantum computing and quantum technology. Both rest on an entirely different basis than classical computing, namely quantum physics rather than mathematics. As I've written in an earlier *American Affairs* article, quantum's disruptive possibilities far exceed that of any technology since nuclear weapons.[3] Without a trained quantum workforce, and without a strong cadre of researchers and teachers who are capable of expanding our knowledge of quantum information science, we will face a shortfall in this critical twenty-first-century technology. Such a shortfall would materially affect our ability to win wars in the coming decades.

The same is true in other areas of the struggle for high-tech supremacy. Where will those trained cadres come from? If current trends continue, they will increasingly, and inevitably, come from outside the United States. The long-term trend of having to rely on foreign nationals to fill America's STEM gap, which began in the late 1990s and early 2000s, is now here to stay.

Immigrants accounted for well over 50 percent of the growth in employment in STEM-related fields between 2003 and 2008.[4] In addition, foreign students make up the majority of majors and graduate students in many STEM fields in American universities—including students from our leading geopolitical competitor, mainland China.

Overall, the data shows that enrollment of international students in U.S. science and engineering university programs has been steadily rising since 2008, while the number of U.S. citizens and permanent residents enrolled in those programs has steadily declined. We are witnessing a gradual withering away of American college student engagement in the very same STEM disciplines that will determine who dominates, and who is dominated, in the twenty-first century.

The Trump administration's recently released report "Charting a Course for Success: America's Strategy for STEM Education" stated: "Now more than ever the innovation capacity of the United States—and its prosperity and security—depends on an effective and inclusive STEM education ecosystem. . . . Simply to function as an informed consumer and citizen in a world of increasingly sophisticated technology requires the ability to use digital devices and STEM skills such as evidence-based reasoning."[5]

In fact, the administration's report understates the case. We now face a crisis, and one that will not wait for free market forces to solve.

The Current State of U.S. STEM Education

What is the current state of STEM education in America? One of the most important benchmarks for measuring STEM proficiency in the United States and around the world is the Programme for International Student Assessment (PISA). Every three years it measures reading ability, math and science literacy, and other key skills among fifteen-year-olds in a large number of developed and developing countries.

The most recent PISA results date from 2015. The United States ranked thirty-eighth out of seventy-one countries in math and twenty-fourth in science. Among the thirty-five members of the Organisation for Economic Co-operation and Development (the PISA's principal sponsor), the United States comes in fifth from the bottom in math and nineteenth in science.[6]

Dismal scores like these in the early 2000s were enough to trigger a National Academies of Sciences report, "Rising Above the Gathering Storm," which argued that strengthening science and math education was essential if the United States was going to remain prosperous in the twenty-first century. The poor performance was also enough to force Congress to pass the America competes Act, authorizing funding for a variety of new programs to improve K–12 science and math education.[7]

Despite the funding and the national hoopla, however, signs of improvement are hard to find. Another measurement of America's STEM status is the National Assessment of Educational Progress (NAEP) run by the Department of Education. In 2015, eight years after the America competes Act, average math scores for fourth- and eighth-graders fell for the first time since 1990. On a scale of 0 to 500, the average fourth-grade NAEP math score was 240—the same level as in 2009. The average eighth-grade score was 282 in 2015, the lowest since 2007. That year, NAEP revealed that only 38 percent of fourth-graders, 34 percent of eighth-graders, and 22 percent of twelfth-graders could be considered proficient or better in science. At the same time, 24 percent of fourth-graders, 32 percent of eighth-graders, and 40 percent of twelfth-graders were rated "below basic" for their grade levels.[8]

A third measurement is the Trends in International Mathematics and Science Study or timss, which has tested international students in grades four and eight every four years since 1995. Again, in the most recent test from 2015, ten countries (out of forty-eight total) had higher average fourth-grade math scores than the United States, while seven countries had higher average science scores. In the eighth-grade tests, seven out of thirty-seven countries had statistically higher average math scores than the United States, and seven had higher science scores. In the fourth-grade math category, Japan, South Korea, Taiwan, England, and Norway all scored higher—as did China and Russia.[9]

These mediocre results won't surprise most Americans. A 2015 Pew Research Center report found that only 29 percent of Americans rated their country's K–12 education in STEM as above average or the best in the world. Scientists were even more critical. A companion survey of members of the American Association for the Advancement of Science found that just 16 percent called U.S. K–12 STEM education the best or above average; 46 percent, by contrast, said K–12 STEM education in the United States was below average.[10]

In summing up the state of STEM in America, the Trump administration's "Charting a Course for Success" report puts the best spin it can on the STEM issue. It asserts that "Americans' basic STEM skills have modestly improved over the past two decades" but also admits that we "continue to lag behind many other countries" and that "recent data from a test commonly taken by college-bound high school students found that only 20% are ready for courses typically required for a STEM major."[11] On the other hand, the report said, "in the past 15 years, India and China have outpaced the United States in the number of science and engineering (S&E) bachelor's degrees conferred." Indeed, "these two countries have produced almost half of the total degrees, with India at 25% and China at 22% of the global total." Meanwhile, "American S&E bachelor's degrees comprised only 10% of the global total."[12]

Which brings us to a double paradox. While Americans perform well below average in STEM disciplines, their colleges and universities continue to have some of the best STEM programs in the world. And while Americans tend to stand aloof from the centers of STEM excellence in our colleges and universities, foreign students emphatically do not.

Foreign Students and America's STEM Future

Today, the United States remains the country of choice for the largest number of international students, hosting about 1.1 million of the 4.6 million enrolled worldwide in 2017. As of March 2018, roughly 1.2 million F-1 (visa for full-time students at an academic institution) and M-1 (visa for full-time students at a vocational or other nonacademic institution) students were enrolled and registered at more than 8,700 certified schools across the United States.[13]

In the 2016–17 school year, China was the top origin country for international students (351,000), representing 33 percent of the total, followed by India (17 percent); South Korea and Saudi Arabia (5 percent each) and Canada (3 percent) rounded out the top five. Engineering, business management, and math and computer science were the top three fields of study for international students in 2016–17, accounting for more than half of all international enrollment at U.S. higher education institutions.

Overall, the data shows that the enrollment of international students in U.S. science and engineering college and university programs has been steadily rising since 2008, while the number of U.S. citizens and permanent residents enrolled in such programs has steadily declined. In 2017, the number of international visa holders increased in computer sciences and mathematics (by 11 and 5 percent, respectively) but declined in engineering (5 percent), social sciences (3 percent), and non-S&E fields (4 percent). At the same time, 48 percent of international students were in STEM fields and were eligible for extended 12- to 36-month Optional Practice Training (OPT) visas upon graduation.[14]

There is an even larger proportion of international graduate students than undergraduates enrolled in science and engineering programs. (More than six in ten international graduate students in the United States in fall 2017 were enrolled in these fields, compared with about four in ten international undergraduates.) In 2017, 62 percent of all international students in graduate programs at U.S. institutions were enrolled in S&E fields—69 percent of those came from China and India.

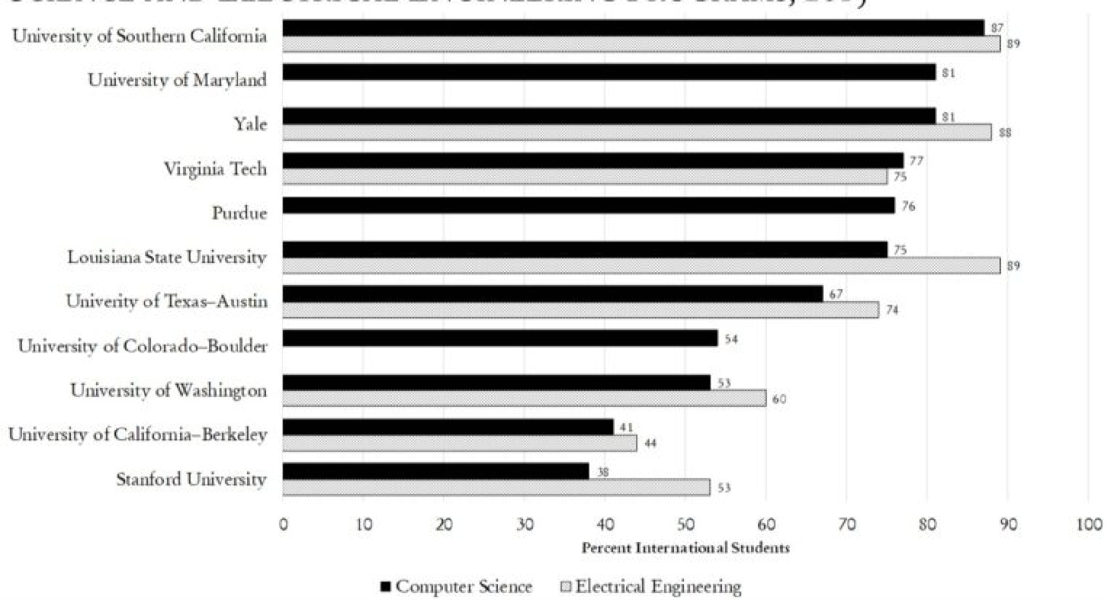
In fact, according to the National Foundation for American Policy, both undergraduate majors and graduate programs at many U.S. universities could not be maintained without international students. Foreign nationals account for 81 percent of the full-time graduate students in electrical engineering, 79 percent in computer science, 75 percent in industrial engineering, 69 percent in statistics, 63 percent in mechanical engineering, 59 percent in civil engineering, and 57 percent in chemical engineering. Without international students, the number of full-time students pursuing graduate degrees in the fields of computer science, electrical engineering, and other fields would be shockingly small for an economy as large as America's.[15]

Furthermore, students on temporary visas continue to earn high proportions of U.S. S&E doctorates, as well as large shares of the master's degrees in these fields. In 2015, international students earned more than half of the doctoral degrees awarded in engineering, economics, computer sciences, mathematics, and statistics; their overall share of S&E degrees was 34 percent. Once again, Chinese students composed a large share: 28.8 percent of the S&E doctorates issued to international students on temporary visas between 1995 and 2015 went to Chinese nationals.[16]

When we look at individual colleges and universities, especially those highly ranked in science and engineering, the numbers look even more alarming. At Harvard University's Computer Sciences Department, for example, more than half (53 percent) of students are foreign students. At MIT, there are slightly fewer (43 percent) in computer sciences, but 55 percent in electrical engineering.

At Princeton and Yale, the picture of American STEM appears even more dismal. In Princeton's computer sciences department, 60 percent of students are international; the number is 70 percent in electrical engineering. Yale's American participation is no more than 19 percent in computer sciences and 12 percent in electrical engineering. At the University of Maryland, computer sciences students are 81 percent foreign nationals; Virginia Tech enrolls 77 percent, and Purdue University computer sciences 76 percent. The graph below tells the rest of the story.

PERCENTAGE OF INTERNATIONAL STUDENTS IN SELECT U.S. COMPUTER SCIENCE AND ELECTRICAL ENGINEERING PROGRAMS, 2015



Source: National Science Board, see note 16.

Overall, the proportion of international PhD-level students on temporary visas to study STEM subjects in the United States has doubled over the past thirty years. A July 2016 report by the Ewing Marion Kauffman Foundation argued that if current trends continue, international students will comprise half of U.S. STEM PhD graduates by 2020.[17]

How serious a national security threat is this trend? On the one hand, the presence of large numbers of foreign students studying in the United States, even Chinese students, should not be a cause for alarm by itself—nothing argues for a xenophobic approach to this growing phenomenon. At the same time, many companies in Silicon Valley will argue that without foreign nationals, they can't fill the gaps in their ranks. Nor, obviously, would similar programs at major universities around the country be able to sustain themselves.

On the other hand, when the Pentagon and other national security agencies start looking for STEM graduates and STEM-trained engineers who can pass the necessary security clearances, they will find themselves facing a severe shortfall of American nationals who can pass muster. In short, an alarming trend is developing: America's ability to produce, sustain, and protect research in key technological and knowledge areas vital to our defense and national security looks vulnerable because the talent pool of American citizens working in this area is shrinking. And while U.S. leadership in STEM is slipping away, other countries, including China, continue to surge ahead.

China: The Threat at Home and Abroad

On June 19, 2017, *NextWeb* ran an article entitled "While U.S. STEM Education Market Declines, China Invests Heavily." The gist of the article by Rick Ye was that, although the United States is the world' s biggest producer of STEM goods and services, and U.S. edtech companies were able to generate an estimated $1.3 billion in venture capital deals in 2016, "the world is questioning the fate of STEM education in US school systems." The growing shortfall in U.S. STEM education and its supporting edtech industry has led major U.S. companies like Microsoft to search for talent—and support education in—other countries, since the United States can't meet their needs.

On the other hand, the article pointed out that China's "STEM learning industry is projected to hit $15 billion by 2020."[18] In addition, the per capita expenditure of Chinese households on education has tripled over the past decade, rising from 670 yuan in 2000 to 2,381 yuan in 2015. China clearly sees investment in STEM as a priority for its future as a superpower, and where the government isn't doing the investing, average Chinese families are.

Today China is the world leader in number of STEM graduates. The World Economic Forum reported that China had 4.7 million recent STEM graduates in 2016, and India had 2.6 million new STEM graduates, while the United States had only 568,000. China's president Xi Jinping has repeatedly declared that his aim is to transform the country into a "science and technology superpower." This is an essential part of his "Made in China 2025" program announced late last year, and China's larger agenda of displacing the United States as the world's dominant superpower. Fortunately for Xi's dream, China has the educational tools to achieve that aim.

Not surprisingly, given its population, the Chinese state-run education system is the largest in the world. The Compulsory Education Law of China mandates nine years of government-funded, compulsory school attendance, which includes six years of primary school and three years of junior high school. After graduating from junior high school, students have to choose between senior high school and vocational school. Senior high school students also have to choose between a social-science and a natural-science orientation. This in turn affects the test categories students later take during the National Higher Education Entrance Examination, an academic examination not unlike the SAT in the United States. The National Higher Education Entrance Examination, or Gaokao, is considered the single most important exam in a student's entire life, since it determines whether he or she is allowed to enter a university.

For those fortunate enough to pass the Gaokao, the choice of places to go for study has dramatically increased recently. The number of universities in China grew by 768 between 2005 and 2015. Among the top twenty universities in Asia in 2017, ten were from the Greater China area.[19] The focus there has been not only on quantity but quality of higher education. Established in 1998, the 985 Project is the Chinese government's program for raising the research standards of China's best universities. At the top of the pyramid is the so-called C9 League, the nation's top nine universities which are guaranteed 10 percent of China's entire national research budget.

One of those is Tsinghua University, which many call China's MIT, and which boasts two Nobel Prize winners on its science faculty. Another is Peking University, which has extensive student exchange programs with Western universities. There is also the University of Science and Technology of China (USTC) in Hefei, adjoining the new $11 billion quantum research center that the government is building to secure "quantum supremacy" for China.

The staffs of these leading schools aren't limited to Chinese scholars. Thanks to China's "Thousand Talents" program launched in 2008, Beijing maintains a coordinated effort to recruit the best and brightest in key STEM areas among foreign scholars as well. Money is no object when it comes to salaries and research support, and a visiting professor at Tsinghua or USTC can count on a coterie of willing and able research assistants. He or she may not even mind that many of those assistants will go on to work for the People's Liberation Army (PLA) and develop the future weapons systems that could threaten the United States and its allies in the future.

It's an impressive, even formidable array of educational resources. But problems and vulnerabilities remain. One is the sharp disparity between the number of universities, and the quality of education, between more urbanized eastern China (e.g., Shanghai, Canton, and Beijing) and more backward western provinces.

Another, according to Hu Weiping, professor and director of the Modern Teaching Technology Lab at Shaanxi Normal University, is that while an increasing number of Chinese companies and schools have been investing in STEM, the focus has tended to be on getting product results instead of laying the groundwork for the future through fostering young talent.

Hu has been quoted as saying that even though the National Natural Science Foundation of China has been heavily funding education projects since 2017, projects related to technology or science education haven't really benefited. "Without funding there won't be input from scientists or anyone else," Hu said. "That's why I have called on the foundation to start working on this issue, so that more experts will be encouraged to do more research on curriculum reform to stimulate technological innovation."

China's STEM education also suffers from a major shortage of both professional science teachers and proper science training for teachers. About 80.5 percent of teachers involved in STEM subjects received no serious science education, and many were at a middle or high school education level, according to Hu.[20]

A recent study by Richard P. Appelbaum and Xueying Han pulled together data from 731 surveys completed by STEM faculty at China's top twenty-five universities. They found "that the Chinese educational system stifles creativity and the critical thinking necessary to achieve innovative breakthroughs, too often hamstrings researchers with bureaucratic requirements, and rewards quantity over quality." "China's emphasis on rote learning and memorization reinforces this," said Appelbaum, "as does a strong cultural emphasis on respect for authority."

In the end, according to Dr. Han, "The challenges that are facing China's research environment are not things that can be easily fixed by money. They're cultural challenges, and that's going to require a major shift in thinking."[21]

One way that the Chinese government has dealt with these deficiencies is by accelerating the migration of its students to foreign universities, especially

U.S. universities. According to Han, "Foreign degree holders get many advantages—higher salaries, easier access to promotions, bigger lab space—compared to their domestic counterparts. . . . We discovered that Chinese domestic degree holders also thought that a foreign degree would give you better recognition from colleagues . . . and this recognition could open doors that might not be available to domestic degree holders."[22]

A STEM degree from an American university has particular cachet in Chinese scientific circles. So it's not surprising that hundreds of thousands of Chinese STEM students have applied for and been granted admittance to top U.S. universities, and given top-notch educations in their chosen fields. Meanwhile, those same universities like Chinese students because they pay their exorbitant tuition fees without scholarships or complaint.

How large are the numbers? Every other year, ICE issues a report on the enrollment of foreign students in the United States. According to its latest report, "Sevis by the Numbers: Biannual Report on International Student Trends," issued in April 2018, Chinese foreign students (377,070) by far outnumbered their closest competitor India (211,700). While the report did not disclose how many Chinese students are enrolled in STEM courses of study, in past years more than half of all Chinese students enrolled in STEM programs.[23]

At the same time, Chinese engineering students take advantage of the expanding opportunities to work in U.S. companies that are of strategic interest to the Chinese government, where they are able to get training and learn about technologies that they can bring back to China. This supports not only Chinese industry but the People's Liberation Army. As one critic of the open-door policy toward China has put it, "When China rattles its sabers at the United States and other countries around the world, frequently those sabers were designed by those engineers who received their education in the United States."[24]

American universities aren't the only targets. According to the Australian Strategic Policy Institute, some 2,500 Chinese military scientists have been steadily doing research at universities abroad since 2007, often without disclosing their connections to the PLA.[25] By any economic or national security measure, this Chinese penetration of American university STEM programs has become a severe problem. It is in effect a reverse brain drain. Chinese students are able to acquire a first-rate education from programs that are in many cases funded by the U.S. government as well as major private corporations and foundations. They can then take that knowledge back to China to build similar programs aimed at undermining our national security—not to mention engage in "extracurricular" activities such as spying and intellectual property theft from their professors.

The Australian Strategic Policy Institute calls this "picking flowers to make honey in China." American intelligence agencies have a cruder name for it: "Chinese Takeout." It's no wonder there's a growing debate about whether and how to restrict the number of Chinese nationals studying in the United States, and which subjects they can study.

But a much larger lens is required to see the real problem, which is not the large number of foreign students studying STEM in American universities, but the declining number of American students doing the same thing. This is going to demand a much bigger and more comprehensive approach to reform than just putting restrictions on F-1 or M-1 visas. It demands an approach much more akin to the one Sputnik triggered more than sixty years ago, an approach that not only transformed U.S. technology and science, but also the relationship between government and education.

Sputnik was launched on October 4, 1957. On December 30, the American Association for the Advancement of Science (AAAS) published a resolution calling for specialized training for teachers of science. On January 28, 1958, President Eisenhower addressed Congress on how the National Science Foundation was going to answer the need for more scientists and science education. Less than one year later, Congress approved a $1 billion funding bid for the National Defense Education Act (1958), which involved the first complete overhaul of the American education system from schools to universities at the federal level.

In very short order, President Eisenhower established the position of Presidential Science Advisor, and the House and Senate reorganized their committee structures to focus on science policy. Congress also created the National Aeronautics and Space Administration (NASA), in order to create a civilian space program, and tripled funding for the National Science Foundation to improve science education.

What set off this remarkable explosion of federal effort, in effect an "all-of-government" approach to improving America's position as a leader in science and science education? First, of course, was the fear that Sputnik signaled that the United States was losing the space race to the U.S.S.R. It was even feared that the U.S.S.R. would use satellites like Sputnik to spy on America or to fire nuclear weapons from space. Second, there was embarrassment that the United States, which had proved so successful at forging the Arsenal of Democracy in World War II, and winning the nuclear weapons race, and whose industrial might was unparalleled in history, was somehow falling behind in the next important race for the strategic future.[26]

Above all, Sputnik fed a suspicion that America's problem stemmed from an education system that was sadly out of step with the new technological times. In the words of historian Paul Dickson, "Science and mathematics education became, in the public's eye, the solution to winning the science and technology race with the Soviet Union and to regaining global dominance."[27] As the *Hartford Courant* noted, "one of the direct results of the sputniks has been that U.S. people have been taking a long look at their educational system and the program this country has for producing scientists and engineers."[28]

Besides the fear of the Soviets, however, there were other reasons behind this worry about the state of America's science and mathematics educational base. The introduction of the digital computer in the 1950s and '60s created a large demand for mathematicians, programmers, and computer scientists in both the public and private sectors. Since private companies, including defense companies, were drawing their needed talent directly from universities, educational institutions across the country were suffering from a dearth of STEM professors and teachers, even as the GI Bill was rapidly expanding university attendance and the postwar baby boom was about to add to the numbers of children attending school.

America was also losing the generation of engineers, mathematicians, and computer scientists from Europe who had dominated the American scientific landscape during the 1930s and '40s: figures like Albert Einstein, Leo Szilard, and John von Neumann. That loss meant that the country would need new domestic sources for the very highest and most innovative scientific talent—sources that would have to compete with the Soviets' ability to summon the talent it needed virtually on command.

This need for an educational reset was necessary at the top of the intellectual pyramid, in our universities, but also throughout the entire K–12 spectrum. In a speech to the National Education Association, Vice President Nixon argued that America's military and economic strength was entirely dependent on the strength of our educational system. If we lost leadership in the latter, our primacy in the former was bound to suffer.[29]

These worries and the search for a solution culminated in the passage of the National Defense Education Act (NDEA) of 1958. Its goal was "to strengthen the national defense and to encourage and assist in the expansion and improvement of educational programs to meet critical national needs."

The act set aside more than a billion dollars over four years for eight program titles, including student loans and scholarships (Title ii); money for strengthening science, math, and foreign language programs (Title iii); funding for graduate fellowships in certain critical areas of study (Title iv); funding for programs to identify talented and gifted students (Title v); money for research on more effective educational technologies (Title vii) as well as vocational and workforce training (Title viii). The act also established the Science Information Institute and Science Information Council to disseminate scientific information and advise the government on various technical issues (Title ix).

What is striking is how the NDEA viewed STEM in a broader context and sought to address the need for federal support of education as a whole, including language training and "area studies" such as Latin American studies (part of Title vi). Many colleges and universities used these NDEA funds to create specialized language laboratories. Specialized language classes also created a space for other specialized classes, where gifted students could take advanced math and science classes. Different streams of classes for different levels of students were created at the high school and even elementary levels of schooling.[30]

What was the overall impact of the post-Sputnik reforms? Sixty years later, it's hard to say, and harder to measure. To my knowledge, there is still no good quantitative study of the impact of NDEA and other programs coming out of the post-Sputnik reforms. Of course there was a large increase in the numbers of students enrolling in STEM courses and majoring in STEM subjects in the 1960s and '70s, but it is not clear whether this was due to the post-Sputnik education strategy or simply followed from the overall growth in the numbers of students enrolling in colleges and universities, including in STEM subjects. In 1940, about half a million young people, barely 15 percent of college-age Americans, were attending a higher education institution. By 1960 that number had jumped to 3.6 million; by 1970 it had more than doubled again, with 7.5 million Americans, or 40 percent of college-age youth, attending a college or university.[31] Virtually every academic department was bound to see big increases in numbers of students under that kind of demographic pressure, as well as increases in numbers of teachers and instructors.

What we can say is that the post-Sputnik shakeup of American education certainly had its downside. The growth of the bureaucracies that federal funding generated, both at the government and the academic level, soon diluted the NDEA mandates and the STEM offensive by pushing money and attention into relatively minor or even worthless fields. The word "science" soon proliferated in a number of unrelated subjects in order to give them sufficient panache to get students and funding. Programs like "business science" and "communications science" came to be treated as if they were real STEM disciplines, instead of soft and squishy versions of the real things.

Another egregious byproduct was the launching of New Math, made popular by the Cambridge Conference on School Mathematics, which aimed to achieve a radical acceleration of the elementary math curriculum so that calculus could be introduced as a regular high school subject. New Math was supposed to speed up the calculating proficiency of American school children, but in most cases it had the opposite effect. The bewildering flurry of concepts and abstractions borrowed from mathematical logic—for example, Venn diagrams instead of old-fashioned multiplication tables and exercises in long division—certainly killed my interest in mathematics early in my fourth-grade career. From anecdotal evidence, my experience was not unique. The backlash against New Math even had its comical aspects, including Harvard math professor Tom Lehrer's spoof of a lecture on New Math principles that declared, "the important thing is to understand what you're doing rather than to get the right answer," and a 1965 Peanuts cartoon showing a youngster stumbling through her new math assignment: "Sets . . . one to one matching . . . equivalent sets . . . sets of one . . . sets of two . . . renaming two. . . .” Finally, she throws back her head and bursts into tears: “All I want to know is, how much is two and two?”

Underneath the comedy, however, was a genuine frustration with an educational fad gone wrong, like the fate of so many educational fads—especially when they have federal funding to encourage their spread. By the mid-1960s, more than half of American high schools were confusing their students with a New Math curriculum; a decade later it had spread to 85 percent of K–12 education.[32] The fact that, a decade after that, U.S. math test scores seemed to be in free fall may not have been entirely coincidental.

Other critics would complain that the post-Sputnik agenda overstressed and overfunded STEM education at the expense of the humanities and liberal subjects such as history and literature (although one can easily argue that far more damage to those subjects resulted from the 1968 radicalism which still reverberates around schools and universities today). And if declining STEM test scores and enrollments since the 1980s are any indication, no one can claim that the impact of the post-Sputnik push and NDEA on American STEM leadership was particularly lasting.

All the same, one can equally claim that without the post-Sputnik reforms, the computer revolution of the 1970s and ’80s, and the dot-com revolution of the 1990s, would probably not have been possible. Substantial credit for America’s IT leadership in the coming decades has to go to the conscious effort to make science and technology cool and exciting for young people, with an assist from new educational technologies for the classroom like lab kits, overhead projectors, films, and TV learning (the ancestor of today’s online learning).

It is also unlikely that the United States would have gained the clear leadership in defense-related technologies that formed the basis of the Pentagon's Second Offset Strategy in the 1980s. Elements of this strategy—including stealth technology, GPS, and networked warfare, along with the broad, innovative technical and scientific industrial base that the federal government organized and funded after 1958—won the Cold War. Indeed, with Ronald Reagan's Strategic Defense Initiative speech in March 1983, we can hear distant echoes of the excitement and optimism about the possibilities of American science and technology that the post-Sputnik era launched a quarter century earlier.

On the other hand, one obstacle that American education reformers *didn't* face in 1958 was large numbers of Soviet students studying STEM subjects in American universities and going home to help to arm the Red Army, let alone steal research and intellectual property from their professors and colleagues. Nor did we have visa programs that promoted Soviet enrollment in American universities, nor were those same institutions eager to welcome Soviet students into their physics labs and engineering programs with open arms.

Yet that is precisely the situation we face today in our STEM competition with China. In this respect, we are facing an American STEM crisis that is substantially more complex than the one we faced sixty years ago, and one which demands solutions even more radical and disruptive than those Sputnik inspired. Because when a headline-grabbing event like Sputnik occurs this time—e.g., a Chinese quantum computer that can penetrate our most vulnerable public encryption systems—it will almost certainly be too late to do anything about it.

On September 10, 2018, on the eve of the seventeenth anniversary of the attack on 9/11, I wrote a *Forbes* column entitled, "America's High-Tech STEM Crisis." In that column, I wrote of America's declining STEM leadership:

> We are fast approaching another Sputnik moment, we can't afford to ignore. Our national security, as well as economic security, depend on addressing it. We need major high-tech companies like Google and Microsoft; leading universities and colleges; the White House, the Department of Education and the Department of Defense; to come together to craft a high-tech STEM education strategy that can lead us forward to the future.[33]

Three months later, the White House released its plans for a five-year STEM strategy.[34] The report is an important document, with large sections devoted to summarizing a strategy to increase U.S. leadership in science and engineering, and creating more economic opportunities for Americans with a STEM education, especially for women and minorities.

Unfortunately, what's missing is a commitment to specifically address the outstanding national security issues America's STEM crisis entails, especially those relating to topics such as computer engineering and cybersecurity, AI, quantum, and robotics. Hence there is still room for a broader strategy that incorporates more input from our Defense Department and intelligence community, as well as those academic communities whose work in these areas will have a direct impact on our ability to defend ourselves in the future, and cooperation with allies such as Japan, Israel, NATO, and the

Five Eyes (Australia, Canada, New Zealand, the United Kingdom, and United States) on the high-tech frontier.

It is also important to realize that this crisis is not one that's going to wait for the marketplace to solve. Markets are notoriously bad at allocating resources in a crisis, but particularly educational resources because of the time lag involved and other factors. For example, there was a rush of people going into petroleum engineering at precisely the moment oil markets crashed in 2014–15. And when MBAs from Harvard and other prestigious schools flood a business zone, that's usually a good sign that a bubble is about to burst.

In addition, some have argued that much of the current dependence on foreign students and H-1B visa employees happened by design, so that American companies could avoid having to pay full U.S. market prices for this kind of high-tech, highly skilled labor.[35] Be that as it may, it seems obvious that strong and insightful government action on this front is imperative. The question is, what kind?

The issue that has generated the most attention and concrete action to date is the growing number of Chinese nationals, including postdoctoral students and professors, studying and working in the United States—a complex situation given the extent to which American universities have come to rely upon these students. In June 2018, the Trump administration announced plans to limit the time Chinese graduate students will be allowed to study in certain critical areas of high-tech research, including robotics, aeronautics, and high-tech manufacturing, from five years to one.[36] On December 2, 2018, *Voice of America* reported: “US Considers New Restrictions on

Chinese Students."[37] The gist of the story was that American officials have growing worries about spying by Chinese students who are studying in the United States, and about the loss of new technologies important for national security to China through their efforts. In addition to the new visa restrictions, officials are considering whether to carry out additional investigations of Chinese students attending U.S. schools. Reuters reported that officials want to examine student phone calls. They are also considering looking at students' personal accounts on Chinese and U.S. social media sites.[38]

But again, the issue of Chinese students needs to be seen in a larger lens. The greater focus should be on how we get more Americans, especially young Americans, to study and get excited about STEM subjects, especially the high-tech STEM disciplines that have crucial national security implications.

One approach would be to designate certain STEM subjects, such as AI or additive manufacturing, as a "critical knowledge base" as described under the NDEA, and offer government scholarships and funding (including Department of Defense funding) that can be directed to those students and researchers working on that knowledge base. This could be supplemented by encouraging universities and colleges to offer tuition waivers for those same students—a powerful incentive at a time when virtually every college grad leaves school with an enormous loan millstone around his or her neck.

Another approach involves more direct coordination with the high-tech corporate sector. The White House report says very little about more effective coordination between the government and private sector, both to improve education and career opportunities in the United States as well as to advance critical research. The work done at America's corporate labs was an important part of the response to Sputnik sixty years ago. Many of those labs do not exist today, but responding to the present STEM crisis will involve mobilizing resources across society. It cannot remain limited to a few government agencies.

Finally, there needs to be a K–12 teaching offensive, aimed specifically at those "critical knowledge bases." It should incorporate new thinking about how to teach math and science as well as old—old, that is, in terms of best-practice models, including those of countries that consistently outperform us in the international rankings. Trying to import wholesale the pedagogical techniques from Japanese or Taiwanese classrooms may not work from a cultural point of view (although certain American "tiger moms" might disagree). But some applicable lessons might nevertheless be learned by studying these techniques. The United States might also borrow more from Norway or Estonia, which consistently score very well on international tests like PISA, and which could provide constructive models for STEM education in American schools.

The bottom line is that STEM education has become too important to be left to the educators any longer, or to the educational bureaucrats. It's high time the Department of Defense and national security agencies weigh in, as they did post-Sputnik, so that America's future doesn't pass into the hands of foreign nationals, no matter how talented or willing, by default.

Sixty years ago, America's effort to seize global STEM leadership helped to put astronauts on the moon. Today, who can say where retaking STEM leadership can lead us in the twenty-first century? And who can say what the costs might be if we fail?

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Notes

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Confucianism and Meritocracy: Light from the East

JAMES HANKINS

Ex oriente lux. With the spring academic term finished, I am in Japan and China, ostensibly to give papers at several Japanese and Chinese universities, but really to learn more about meritocracy debates in contemporary Asia. There has been a heated debate going on there among political theorists about the forms of governance most consistent with ancient Confucian political thought. The debate tracks the theoretical shadowboxing Confucian scholars have been doing for the last two decades with the gatekeepers of official Communist Party of China (CPC) ideology. The Confucians hope to replace a moribund Marxist ideology, still taught in schools, with a political theory that is more authentically Chinese. But the politics behind the debate is so hard for a non-Chinese to read that often the only way to figure it out is to go there in person, find a quiet corner, and start asking questions.

The new politics of elites in the West also offers a pressing reason for interest in the Chinese and Japanese debates, though the typical range of American takes on the crisis of the elites is more limited. The flight to Tokyo offers an occasion to survey some recent American articles. One is a *New York Times* editorial by David Brooks, whose theme, by now a familiar one, is the moral failure of Western elites. It is the flip side of the worry among political elites about the growing power of populism. I also have with me an advance copy of a book I am supposed to review, *Tailspin*, by the crusading journalist and media entrepreneur Steven Brill, who indicts American meritocratic elites for their catastrophic failures of governance over the last half century. In addition, I have the latest *Atlantic* with Matthew Stewart's cover article, "The Birth of a New American Aristocracy" (June 2018), decrying our closed elite and the end of social mobility in America. (More social science lite for English majors, an *Atlantic* specialty.) In spite of all this elite self-criticism in America, no one has a solution to the crisis. Brooks thinks the American elite needs a new ethos. Fine, but how is that going to happen? No answer. Brill hopes for a series of infrastructure disasters, with attendant social chaos, that might awaken American elites to their neglected responsibilities. Stewart recommends vague "action from the federal government" to enforce economic equality.

So it's a relief to come to Asia, where no one has any doubt that meritocracy is a good thing. The only question is how to get more of it: whether it should become the leading principle of the whole political system (as in the "political meritocracy" theorized by Daniel A. Bell, the most well known of the "political Confucians"), a preferred method of selection for office, or simply an ethos spread by culture and education. I'm hoping to learn more about how modern Confucians justify meritocratic governance, and especially how they think China's ancient literary and philosophical tradition can help reform modern elites and modern government. I have an idea that the same approach might be fruitful in West. Nevertheless, I'm uneasily aware that, like some sort of academic salmon, I'm swimming upstream, against the established current of scholars in search of political wisdom. For more than a century, Chinese scholars have been coming to the West to learn about liberal democracy, believing that China's future could be found in the contemporary West. Is Western interest in Chinese political wisdom a sign that China is establishing some kind of soft-power advantage in political philosophy?

Tokyo: Premodern Meritocracy?

My misgivings are soothed by the first stop on my itinerary, Waseda University in Tokyo, one of Japan's best private universities, where Western political values are still firmly in place. I am lecturing at Waseda's new Global Asia Research Center, at the invitation of the political scientist Keiichiro Atsumi, a former student of mine and one of Waseda's principals. The subject of my lecture is the theory of meritocratic governance (or "virtue politics") in the premodern West and its striking structural resemblances to *dezhi*, or virtue government, in early Confucianism. My aim is to highlight the similarities between Western and Eastern ideals of government before the triumph of contractarian and rights-based political thought in Europe in the seventeenth century. (I have tried to swot up ahead of time the literature on Japanese Confucianism, but have not found much grist for my mill.)

In premodern times, Japanese Confucianism was often sponsored by Zen Buddhist monks as an instrument of moral reform among the daimyo/samurai class—hereditary lords, noblemen, and warriors. There was no examination system, no "elevating the worthy," no at tempt to link meritorious rule with political legitimacy—all key elements in Chinese *dezhi*. My Japanese interlocutors are kind and quite interested in the Chinese-Western parallels, but pour cold water on my hope to find something resembling Chinese Confucian or Western virtue politics in premodern Japan. As far as Japanese political theorists are concerned, meritocracy is modern, Western, and a perfectly legitimate, indeed obvious, way of staffing public institutions. It's completely different, they say, from the patrimonial forms of power characteristic of the pre-Meiji era.

Historical research, however, isn't always conducted in the groves of academe, and while visiting a tourist park I stumble serendipitously upon a remarkable early document of Japanese virtue politics. A young Japanese scholar of Buddhist philosophy takes me on a tour of Nara, the ancient capital of Japan. It happens to be the season for school trips and the city is packed with thousands of identically dressed Japanese schoolchildren, all eager to feed the sacred deer (shouts of *kawaii!* cute!) and see the Daibutsu, a 157-foot-tall bronze statue of the Buddha from the eighth century. To escape the mobs we slope off to the nearby village of Horyuji to visit the shrine in honor of Prince Shotoko Taishi. The prince was a key figure in establishing Buddhism in Japan and introduced Confucian influences as well through what is known as the "Seventeen-Article Constitution" (AD 605). This foundational document is well known to Japanese historians and legal scholars, but it is an exciting new discovery for me, since in effect it presents Confucian meritocracy in constitutional form. (Confucianism with Buddhist characteristics, as the Chinese might say.) It's not a constitution in the Western sense, to be sure: it doesn't establish institutions to order and constrain sovereign power, but rather lays down standards of behavior expected of imperial ministers: justice, virtue, and devotion to the welfare of the people. Modern political Confucians debate fiercely whether the Confucian tradition is compatible with constitutionalism or whether its texts and theoretical assumptions commit it to absolute monarchy. The Vietnamese scholar Bui Ngoc Son, a senior research fellow at the Centre for Asian Legal Studies at the National University of Singapore, has argued recently for the controversial thesis that Confucian emperors were in effect constitutional rulers with real constraints on their power, citing the example of Imperial Vietnam. Now, here in Japan, I have come across an ancient document that actually tried to reduce the principles of virtue politics to constitutional form. As far as I know, it is a unique document in the history of premodern meritocracy.

Shanghai: The Party and Confucius

My next stop is Shanghai, where I've planned to meet the Chinese collaborator with whom I'm writing an article mischievously entitled "The Dao of Petrarch," comparing the "virtue politics" of the Italian Renaissance with the *dezhi* of ancient Confucian writers. I need the help of someone with expertise in ancient Chinese texts, especially Confucius, Mencius, and Xunzi, the philosophers most frequently cited in modern reconstructions of political Confucianism. For reasons that will become clear I'm not able to give his real name or institution, so let us call him Dr. Feng. Dr. Feng, in addition to being an expert on early Confucian texts, also studied the history of Western political theory at a leading American university some years ago before returning to China. Eventually he found employment as a political scientist in a department of Marxism. He confesses to me with some embarrassment (in America he had been a keen supporter of the Chinese democracy movement) that in order to hold this position he has had to join the Communist Party. It's not surprising—after all, 7 percent of the population of China belongs to the Party, many for similar careerist reasons—but Dr. Feng assures me, laughing, that he has not become a Marxist, nor for that matter have most of his colleagues, who are nevertheless all Party members.

In China Marxism is the only political theory that may ordinarily be taught in schools and colleges, and only specialized graduate students, under increasingly tight supervision, can make any serious study of Western political theory. This means that most undergraduate courses on politics consist of memorization and commentary on approved Party slogans. There's no room for open-ended argument, and Dr. Feng, trained in the analytical approach of Western theorists, is bored and frustrated. So are his students. As the youngest faculty member it falls to him to teach the most unpopular course in the department, the required course in Marxism (9:15 a.m., immediately after group calisthenics). This is not what Dr. Feng hoped university teaching would be like. His students, mostly business majors, sit fiddling with their cell phones while he lectures and comments on the textbook. He longs for the department to make a new hire so that he can move up and teach something more interesting.

The curriculum has been revised this year to include "Xi Jinping Thought on Socialism with Chinese Characteristics for a New Era," fourteen bullet points meant to set a new direction for the country. These articulate not so much an ideology as a vision for what China is or aspires to be. Since October 2017, Xi Jinping Thought has been incorporated into the

Constitution of the Communist Party of China, and it is now being promulgated not only in schools and universities but through posters, street banners, electronic display boards, films, and even popular music. More than twenty universities have established research institutes to design ways to blend Xi Jinping Thought into daily life. At Dr. Feng's university, students are taught the three stages of China's modern history, i.e., since 1949, when the Communist Party began to sponge away the shame of colonialism—the "one hundred years of humiliation." These are *zhan qi lai*, stand up, *fu qi lai*, get rich, and *qiang qi lai*, get strong, referring respectively to the eras of Mao Zedong, Deng Xiaoping, and Xi Jinping. The stages are a bit like the fundamentalist Pro-testant approach to biblical theology known as dispensationalism. This approach removes contradictions between biblical teachings by positing that God deals with mankind in different ways at different times. What was right in the time of man's innocency becomes wrong under the patriarchs; what was allowed under the patriarchs is no longer permitted by the law of Moses; what was demanded under law is set aside under grace. Just so, what was right under Mao became wrong under Deng (prohibition of free markets and persecution of intellectuals, for example), and Deng's famous declaration that "to get rich is glorious" is now being tempered by Xi's revised version of socialism, oriented toward moral reform, service to the people, environmentalism, and national greatness. The dealings of the dialectic with the Chinese nation require different solutions at different times, but the Communist Party, like God, remains in its heaven.

Then there are the slogans. Dr. Feng is also responsible for teaching the China Dream (like the American Dream, but sustainable), the "Four Comprehensives" (Xi's political goals for China), and the Twelve Values of

Contemporary China. The latter include four "value targets" (prosperity, democracy, civility, harmony), four "principles to follow" (freedom, equality, justice, rule of law), and four "principles of social ethics" (patriotism, dedication, integrity, friendship). To me it sounds more like the Boy Scouts than a college curriculum. But Dr. Feng (whose mother practices Buddhism) suggests that the CPC's addiction to making lists of doctrines reflects the residue of Buddhism in Chinese thought, which is similarly obsessed with list-making. The contrast with old-fashioned Marxism, with its impenetrable jargon and endless scholastic quibbling over obscure points of doctrine, could not be more stark.

From my Western perspective it seems that the Party's ambition to control political thought shows its increasing power and reach. Dr. Feng, however, has a different interpretation. He sees great dangers ahead for the Party, and thinks it is pumping up patriotism and ideological education in order to bolster commitment to a regime that is threatened by huge levels of debt, an aging population, economic slowdown, high taxes, and imperial overstretch. The strategy of the Party for the last quarter century has been to endow itself with what Confucians call "performance legitimacy," keeping the loyalty of the people through stability, peace, and making lives better in a material way. If the economy slows, if there is a debt crisis, or if there is a foreign policy failure too big to hide, there will have to be other ways to keep the loyalty of citizens. Commitment to admirable common goals through education (or indoctrination, if you prefer) is one of them.

Yet just because undergraduate ideological training is being reduced to slogans and access to non-Party versions of reality is being shut down does not mean that the thinking of the Party's own intellectuals is vacuous or illinformed. Quite the opposite. Party intellectuals, especially those at the Central Party School outside Beijing, the CPC's main think tank, are rigorously trained. Favored above all is the study of the social sciences, particularly economics, sociology, and political theory, and many leading Party intellectuals have degrees from Harvard, MIT, and Oxford. Quantitative approaches (as at most elite Western universities these days) have the most prestige. The revival of social science in China, and its application to the task of preserving CPC authority, is one of the great untold stories of the last three decades. It constitutes at least part of the explanation of how the CPC has been able to keep control of the political and economic life of the country while other former Communist regimes have collapsed.

For keen observers of the Party's internal politics like Dr. Feng, the thinker who gets the most credit (although not in public) for reshaping Party ideology is Wang Huning (b. 1955). By any measure he is the most influential intellectual in the world. Formerly a professor of political thought at Fudan University in Shanghai, Wang was recruited into the service of the Party in the uncertain years after the Tiananmen Square uprising of 1989. At that time, the Party faced what became known as the "three belief crises" (三信危機): a crisis of faith in socialism, a crisis of belief in Marxism, and a crisis of trust in the Party. In those years there was a widespread belief outside China, shared by many Chinese, that liberal democracy had won the ideological battle of the twentieth century and Communism was a failed system on the way out. There were also new economic, political, and diplomatic challenges to which Marxism-Leninism-Maoism did not seem to offer any good answers. The Party began to seek out trained social scientists and to build up think tanks to address its ideological weaknesses, as well as to formulate policy in a more scientific spirit.

Wang, a brilliant man by all accounts, was among the first scholars to benefit from the revival of China's university system after the disaster of the Cultural Revolution, in which his family suffered persecution. He came to intellectual maturity in the early Deng period, and along with many others quietly joined the search for a way forward out of Maoism. His early study of French and his Fudan master's thesis, entitled "From Bodin to Maritain: On Sovereignty Theories Developed by the Western Bourgeoisie," perhaps show an initial orientation to Western ideas. In 1985 he became the youngest person ever to hold a professorship at Fudan University. In 1988 he was a visiting scholar in the United States, at the University of California, Berkeley, and the University of Iowa. By the late 1980s Wang's career began to take off, especially after he won national fame leading the Chinese team to victory in the televised Intercollegiate Debating Championship of 1993. In 1995 President Jiang Zemin personally recruited him as head of the politics group in the Central Policy Research Office in Beijing. This was and is the key body of the CPC charged with recommending policies, elaborating Party ideology, and drafting documents and speeches for Party leaders. Wang quickly made himself indispensable to the Party's leadership, and by the presidency of Hu Jintao he had become the most influential voice whispering in the ears of its leaders.

Under Xi his portfolio has expanded to include foreign policy and legal reform as well as ideology. A South Korean newspaper has described him as "China's Kissinger," but he is much more than that. He is said to be the theorist behind most of the major ideological formulations of the last two decades, including Jiang Zemin's Three Represents, Xi's China Dream, the Four Comprehensives, and the Twelve Values mentioned above. His particular concern has been elaborating a new theoretical basis for the legitimacy of the Party's rule. He is also now a political figure in his own right since being coopted into the Politburo, the CPC's top leadership body, in 2017. And he is Xi Jinping's right-hand man, frequently photographed with him, enjoying the kind of access to power that Machiavelli could only dream of.

A matter of speculation among Party-watchers is the degree to which Wang has lent his support to the rehabilitation and appropriation of Confucianism that has taken place in China over the last two decades. Certainly, there has been concern for a long time among the Party leadership that the spectacular growth of the Chinese economy and the materialism it has bred is corrupting moral values and commitment to socialism. This concern dovetails with the need for China to present to the world a more human face than that of Mao, whose iconic portrait is still ubiquitous within China and on every Chinese banknote. The perception of Mao's life and thought is carefully managed within China, but Party leaders are well aware that, outside China, Mao is widely regarded (and with good reason) as one of the worst monsters of the twentieth century.

Confucius is the far more acceptable face of modern China. The Party's embrace of Confucius began in earnest under Hu Jintao, when the teaching of Confucianism in schools was made mandatory and the Confucius Institutes were founded (2004). They now number more than a thousand in over 120 countries. But Xi has ratcheted up the identification of Chinese culture with Confucianism and promoted the elaboration of Confucian political philosophy in universities. Massive government funding has poured into the Confucius Research Institute (founded 1996) in Master Kong's hometown of Qufu in Shandong Province, which sponsors a regular World Confucius Conference, various prizes, grants, and awards, and in general seeks to coordinate global research on Confucius. In schools Xi has promoted the inclusion of "boxes" in textbooks on all subjects containing Confucian poems and maxims, stating that Confucianism should be ingrained in students' minds and become part of the DNA of Chinese civilization. The government's guide to university entrance exams notably increased in 2017 the amount of preparation expected in "traditional Chinese culture," above all, Confucianism.

In recent years the Party has even allowed some students and parents to opt out of the compulsory nine years of state education and to take part in what is called "Sinology education." This is a kind of Chinese equivalent to "character education" or "values education" in America, but based on the teachings of Confucius. Sinology education is conducted mostly in private schools where students wear traditional Chinese garb, learn Confucian texts, visit Confucian shrines, and order their behavior in accordance with Confucian rites. They even learn traditional Confucian musical instruments such as zithers and flutes and practice archery, one of the Noble Arts praised by Master Kong. They sing hymns suffused with Confucian teachings, such as practicing the virtues, benevolence, promoting the country's welfare, and preserving rituals. (Readers can get a sense of the atmosphere by watching the YouTube video of the Si Hai Confucius Academy in Beijing.) The hymns consist of eight phrases with four characters per phrase, and it strikes me that this way of teaching is not really so far from that used in Dr. Feng's classes on the Twelve Values of Modern China, which is expressed in twenty-four Chinese characters, two for each "value." Parents report that the students find the Confucian academies less stressful and results-driven than public schools, and approve the emphasis on becoming a moral person, not just a successful performer on examinations.

Government support for and promotion of Confucianism, however, is not welcomed by all political Confucians. In fact, as I am reminded on my next two stops in China, the correct application of Confucian thought to politics is among the most contentious issues in Chinese political philosophy today. Some Confucians are happy to see the Master's wisdom reenter the bloodstream of Chinese civilization, even under Party sponsorship, while others fear Party Confucianism is a just a form of what Herbert Marcuse used to call "repressive tolerance," a type of tolerance that serves the purposes of political domination. They fear, in other words, that the Party's embrace of Confucianism is merely instrumental and not a matter of deep conviction, and that the lack of sincerity will taint genuine Confucians. Traditionalists feel that Confucian teachings should be learned in the traditional way, by sitting at the feet of a master. Among political Confucians, the main fault line appears to be between those who are willing to use Confucian political meritocracy to justify Party rule and those who want to use Confucianism to reform or replace it. The chief issues that separate the two families of political Confucianism, as one might expect, are democracy and freedom.

Prospects for Political Meritocracy

My first, brief stop in southern China is at Sun Yat-sen University, founded in 1924 by the first president of the Republic of China. Today it is a massive university system enrolling over seventy thousand students in five campuses divided among three cities, Guangzhou, Zhuhai, and Shenzhen. These are three of the nine enormous mainland cities in the emerging megacity of the Pearl (or Zhujiang) River Estuary, all of them booming commercial rivals of Hong Kong. It is the region of China that has for centuries been most open to Western influences, commercial, religious, and political. It is also a region with still-thriving traditions of popular Confucianism, whose rites, shrines, and moral teachings are interwoven with local folk religions.

At SYSU, as it is known, I'm met by my host Kwak Jun-Hyeok, a Korean political theorist I first encountered in 2013 at a conference on Machiavelli in Tianjin. Kwak took his PhD in 2002 from Chicago with a dissertation on Machiavelli, completed under the Straussian theorist Nathan Tarcov. This work oriented his interests towards the classics of Western political theory. Kwak then returned to Korea where he enjoyed a brilliant career, writing about republicanism and constitutionalism, and also serving as the head of the Center for Political Theory, Peace and Democracy at Korea University. He was recruited into the philosophy department at SYSU in Zhuhai as part of its "Hundred Talents" program, funded by the Chinese government, designed to bring international talent to China. He is something of a mover and shaker, and his role now is to make SYSU a presence internationally in the world of political theory. A likable networker who is good at opening the spigots of funding, he has had remarkable success. He's organized numerous workshops with distinguished foreign scholars and a series of edited volumes about various political issues "in Asian context." Since coming to SYSU in 2016, he admits to me, the new funding environment has altered the focus of his studies: there is plenty of government funding for research on political meritocracy, but very little for constitutionalism, republicanism, and democracy.

During the presentation and discussion of my paper, however—again a comparative one on Western virtue politics and Confucianism—I don't sense too many constraints on freedom of speech or thought. This is in part because the audience for my talk is international and because I'm speaking in English—English teaching is emphasized at the graduate level at SYSU Zhuhai. The discussion is in fact pretty free-wheeling, even more so at the *baijiu*-fueled dinner following the seminar. Some interlocutors try to sniff out my politics, but once I say some positive things about democracy, people loosen up and start to position themselves more frankly on the issue of political meritocracy. Most in fact resist the use of Confucian political theory to prop up Marxist ideology. One interlocutor sees this as the infection of genuine political Confucianism with a Western bacillus—Marxism—though he is equally opposed to Western individualism and materialism. Another raises scholarly objections to the interpretation of early Confucian texts made by Daniel A. Bell, who is represented (unfairly, I think) as the chief academic promoter of CPC-friendly Confucianism. Another makes the argument that early Confucian texts can be reconciled with democratic forms of selection, understood as one source (but not the only one) of political legitimacy, and can also be interpreted in ways compatible with political freedom in the sense of value pluralism.

The most important theorist arguing for a high degree of harmony between political Confucianism and Western liberal values is Joseph Chan, a professor in the Department of Politics and Public Administration at Hong Kong University. HKU is the last stop on my itinerary this year. Chan is in fact the main reason for my visit to Hong Kong. I am an admirer of his major work, *Confucian Perfectionism: A Political Philosophy for Modern Times* (Princeton University Press, 2013), which presents a “critical reconstruction” of ancient Chinese political theory in the language of academic theory familiar to us in the West. His analytical framework, along with those offered in the writings of Daniel A. Bell and Tongdong Bai, has helped me make sense of the informal texts I deal with in my historical work. Teasing out the theoretical implications of undertheorized literary texts produced in premodern societies is something political Confucians are good at. It is not a widely practiced skill among historians of Western political thought, who are mostly content to analyze formal texts such as those produced by Aristotle, Hobbes, and Locke.

In any case Chan is obviously a well-liked and respected intellectual leader at HKU. A native of Hong Kong, educated at the London School of Economics and Oxford (where he wrote a thesis on Aristotle’s political thought), he has described his own curiously amphibious formation between Chinese and British culture as follows: Because British policy in Hong Kong was to leave classical Confucian culture untouched, “Many Hong Kong people’s experience of Chinese Confucian culture was positive, and that of British culture not negative, despite its domination through colonial rule. What they experienced was not so much a clash of cultures as their mutuality. Through persistence, creativity, and pragmatism, the men and women of Hong Kong—both Chinese and British—turned what otherwise would be dogmatic antagonism into productive integration.” This doesn’t mean that Chan’s goal is to harmonize Confucianism indiscriminately with any and all values of modern liberal democracy. In *Confucian Perfectionism* he shows himself sympathetic to many Western values (which he usually prefers to characterize as "modern" rather than Western) but critical of the theoretical arguments on which they are based. At the same time, he understands the Confucian tradition as a living thing which must adapt its moral vision to modern conditions in a spirit of creative fidelity.

As an example of the first disposition, he accepts, on Confucian grounds, that some notion of human rights may be necessary in normally corrupt or non-ideal societies as a "fallback apparatus." Such an apparatus can protect individual interests when habits of virtue and duty have decayed. But he deplores the kind of "rights talk" that seeks to substitute itself for traditional moral vocabularies and that tries to base even the most intimate forms of mutual caring and love on the litigious language of rights.

As an example of the second disposition, Chan accepts that traditional Confucianism endorsed a "monist" political authority (we might say absolutist), an emperor who is the source of law and set above it, but he argues that the spirit of Confucian teaching, especially the concept of service to the people, is compatible with modern ideas of limited government, separation of powers, and the rule of law. In general Chan exemplifies the Confucian political ethos of "realistic idealism," moderation, and prudence. The Confucian tradition is a tool to think with; it deserves respect for its relative successes in the past and loyalty from those who love China's traditions. It is not a pseudoscientific system of dogmatic rules to be followed and enforced in defiance of history and existing social values, indifferent to the misery and moral damage it causes.

Joseph has organized a roundtable discussion on "The Prospect of Political Meritocracy in the Contemporary World." This consists of short presentations by Joseph and myself with comments from Jiwei Ci and from Sungmoon Kim. Ci is a feisty political philosopher who has been lecturing for several years on the moral preconditions for introducing democracy to China. Kim is a Korean political theorist from the City University of Hong Kong, the most impressive figure in the younger generation of theorists who defend Confucianism's compatibility with democracy. Both Joseph and I believe the prospects for meritocratic governance, East and West, are parlous. As the foreign guest, I go first, beginning with an overview of meritocratic ideas, education, and institutions in the West from the Italian Renaissance to the present, focusing on the introduction of civil service examinations in Western Europe from the 1790s forward, which were in part inspired by the Chinese examination system. I describe the controversies since the 1950s over meritocratic admissions to elite universities in the United States and argue that modern, morally impoverished notions of merit have much to do with the current crisis of elites in the West. I suggest, more on the basis of hope than experience, that the humanities might be reformed, most plausibly at the level of secondary education, and returned to their traditional purpose of inculcating virtue. Only when there is a widely shared cultural recognition of what true merit looks like can a democratic society learn to value it in its leaders.

Joseph's presentation is a much heftier piece of analysis. He agrees with one of my points, that virtue politics, Confucian or Western, is not committed to a regime type. He distinguishes between political meritocracy, which *is* a regime type, and meritorious governance, which is a kind of political excellence to which any regime may aspire. The regime of political meritocracy is defined as "the idea that a political system should aim to select and promote leaders with superior ability and virtue." It thus differs from democracy, which chooses its leaders via popular elections, and monarchy, which ordinarily invokes the principle of heredity. Meritorious government, on the other hand, is not necessarily present in the regime of political meritocracy—its forms of selection and promotion may not work well—and not necessarily absent from democracy or monarchy. Modern Confucians value certain aspects of democracy, such as its stability and the protections it offers to citizens, but they worry about the manifest defects of democratic selection. They would try "to improve democracy's meritorious governance by injecting meritocratic institutions into a democratic regime."

But this will be difficult, and the main obstacle is the "dogma of the sovereignty of the people" which Chan, relying on Tocqueville, says is backed by "the passion for independence and equality." The attitude which leads self-reliant Americans to say, "I'm as good as you," makes them ill-disposed to embracing merit as a principle of government. Traditional meritocracy was linked with aristocracy, and virtue was reinforced by notions of class, elite education, and noblesse oblige. An aristocrat declassed himself (or "degenerated") when he failed to live up to certain standards. In the post-aristocratic societies of today the best we can hope for is a natural aristocracy of the Jeffersonian type. This would in turn require strong civil associations such as Tocqueville described in 1840s America, but such associations in modern societies are "eroded by capitalist forces and business ideologies." Pluralist societies need to promote not the heroic, godlike qualities celebrated by the ancient philosophers, but virtues that all human beings can share, something like the "ordinary virtues" championed by Michael Ignatieff: trust, tolerance, forgiveness, reconciliation, and resilience.

Chan ends by outlining a Confucian critique of popular sovereignty, a doctrine, he says, that is not only an obstacle to meritocratic governance, but prevents democracy from working as well as it might. The doctrine of popular sovereignty isn't necessary to license popular resistance to misrule, or to justify a government's need for popular support. It does, however, lead modern people to assume that the cure for bad democracy is more democracy, whereas the Confucian tradition (and, I might add, the Aristotelian tradition in the West) would find the cures for democratic dysfunction elsewhere. He concludes that "the prospect for political meritocracy depends on whether the dogma of popular sovereignty can be dispensed with," and whether democratic societies can be schooled to reconcile their passion for equality with recognition of and support for the right sort of human qualities in those who govern them.

I will not give an account of the discussion that followed, lively though it was. On the way back to the United States it occurs to me: although meritocracy is held in much higher regard in Asia, thanks in part to the vitality of Confucianism there, in both hemispheres it will be an equally formidable task to realize a morally rich vision of virtuous government—whether based on the theory offered in early Confucian texts or in the works of ancient Western philosophers. But in China the struggle to restore the lost virtues of the past has at least made a good beginning.

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Soulcraft and Statecraft in Renaissance Italy *(Belknap, 2019).*

Regime Change with Chinese Characteristics

JAMES HANKINS NOVEMBER 16, 2018

REVIEW ESSAY

Just Hierarchy:

Why Social Hierarchies Matter in China and the Rest of the World

by Daniel A. Bell and Wang Pei

Princeton University Press, 2020, 288 pages

Against Political Equality: The Confucian Case

by Tongdong Bai

Princeton University Press, 2020, 344 pages

Soft Power with Chinese Characteristics:

China's Campaign for Hearts and Minds

edited by Kingsley Edney, Stanley Rosen, and Ying Zhu

Routledge, 2019, 318 pages

There is something a little unsettling about a nation that deliberately sets about increasing its "soft power." Soft power, in the classic 1990 formulation by the Harvard political scientist Joseph Nye, is a nation's ability to persuade other countries to follow its lead willingly, thanks to the appeal of its culture, political values, and foreign policies. This contrasts with "hard power," the capacity to coerce other countries using superior wealth or military force. As the idea of soft power has developed in the last three decades, it has come to include a country's ways of doing business, its digital environment, its wider patterns of international engagement, and its educational resources. As military force has become less effective as a solution to problems, and as the gap between rich and poor nations has closed, soft power has assumed ever greater importance in international relations. Countries that want to keep or acquire dominance among the world's nations have to make sure that they are the kind of places where global elites want to do business, to visit as tourists, and to live as skilled professionals. Their political systems need to pass moral smell tests of legitimacy, transparency, goodwill, and respect for human rights. Their institutions need to earn trust and build a reputation for consistency and reliability.

All admirable goals, to be sure. Still, deliberate attempts to acquire soft power are unsettling. In Nye's original formulation, some nations were persuasive internationally simply because of what they were. The United States, which dominated rankings like the "Soft Power 30" until recently, was widely admired for its liberal democratic values, its personal freedoms, its popular entertainment, its scientific innovations, and its thousands of private and public universities. These were not aspects of the United States that government officials had sought, consciously and systematically, to develop as weapons of international competition among nations. They expressed what we were as a nation. True, the CIA and other U.S. agencies tried to promote them for soft power advantage during the Cold War, but they didn't create them. Nowadays most of the top soft power nations in the world, including the United States, have policies designed to maximize their international appeal. Whole bureaucracies as well as university programs and private consulting firms specialize in the task. But the conscious marketing of soft power to other countries cannot but arouse sales resistance, and sometimes buyer's remorse. Brand loyalty becomes harder to build.

Take the example of China's soft power initiatives in the last decade. China has implemented policies explicitly designed to increase its soft power at least since the 17th Central Committee of the Communist Party of China in 2011 formally declared its intention of making China a "socialist cultural superpower." Xi Jinping explicitly used the term when he announced in 2014 that "We should increase China's soft power, give a good Chinese narrative, and better communicate China's messages to the world."[1] Since then it has been a full-court press. China has established hundreds of new universities, professional schools, and research institutes, dumped vast sums into the arts, filmmaking, international sporting activities, musical competitions, and tourism. It has increased the penetration of its political narratives via the global expansion of its media organizations such as China Central Television (CCTV). Its official budget for "public diplomacy" of this kind is at least fifteen times the amount spent by the U.S. State Department.

Yet it is hard to believe that this flood of cash is being well spent, at least from the point of view of acquiring soft power. The most recent surveys of international opinion show that China has hardly budged in soft power rankings over the last five years, hovering near the bottom of the top thirty nations, scoring far lower than countries like France, Sweden, Italy, and Canada that are greatly inferior in hard power. One problem might be the perception of inauthenticity. When the state finances international rock music competitions in central Asia, then flies the winners to Beijing to give concerts before high school students—attendance and enthusiastic screaming mandatory—it may be doubted whether China is yet ready to challenge the United States or South Korea in the appeal of its pop music. Heavily censored "C-pop" simply can't compete with K-pop, wildly popular across Asia and worldwide. China's attempts to buy love for its pop music only illustrate the soft power weakness of an authoritarian state. You can't put lipstick on a pig and expect it to win a beauty contest.

There can be little doubt that by far the biggest obstacle to Chinese success in soft power is the nature of its political system. Of the 12,500 people sampled across the globe for the "Soft Power 30," the most data-rich analysis available, almost all put political values at or near the top in justifying their preferences. Political preferences thus weigh more than 40 percent in its ranking algorithm. And China, which stands high in a number of other categories, falls perennially at or near the bottom in perceptions of its political system. As Kingsley Edney, Stanley Rosen, and Ying Zhu write in the introduction to their recent edited collection, *Soft Power with Chinese Characteristics*,

> China appears no closer to solving the fundamental problem of how to cultivate an association with the kinds of political values that resonate positively beyond its borders and overcome the deep-seated suspicion of authoritarian states held by people in liberal democracies. Even in the developing world it remains uncertain whether China's political values will be able to attract local partners in a way that transcends political expediency or economic self-interest and generates a common bond than runs deeper than platitudes about "win-win" cooperation.[2]

In recent years it has appeared to some observers that Chinese leaders have become less focused on the acquisition of soft power, favoring instead a return to hard power, especially via global infrastructure investment through its "Belt and Road Initiative" (BRI). But if the hope behind this vast outlay of financial and industrial resources was to improve perceptions of the Chinese political system, the results have been disappointing. There are structural reasons why it is difficult to convert hard power to soft power: as the United States learned long ago in South and Central America, the use of economic hard power often alienates more than it ingratiates.[3] Even in China's own neighborhood of East Asia, very few people have experienced a new eagerness to embrace China's authoritarian development model, preferring those of the United States, Japan, or Singapore. Though countries on China's periphery other than Japan remain cautious about joining U.S. efforts to contain China, Chinese attempts to push back against U.S. influence in the region have also found few willing allies.[4] Cultivation of its strategic partnership with the Russian Federation has only brought the United States to strengthen ties with India.

China's inability to build trust via economic investment has been further undermined by its increasing use of what some analysts now call "sharp power," defined as "attempts to coerce and manipulate opinion abroad, particularly in democratic societies." A broader and better term might be "covert power," clandestine means short of war that are used to weaken an opponent's economy, social cohesion, and military effectiveness as well as to discredit its political system. Covert power is in effect a negative version of soft power. It can undermine an opponent's soft power, but its success depends on its remaining covert. Once it is exposed, it has disastrous effects on the soft power of the nation that uses it, as China's attempts to use sharp power in Australia have shown. The result is a global race to the bottom in soft power, ruining the prestige of one's own country as well as the targeted country and weakening the affective ties that enable international cooperation and reciprocity.[5]

In short, China's stupendous economic growth and military expansion of recent decades has left it a muscle-bound giant. It longs to exercise influence in the world commensurate with its power, but so far it has made little headway. Black swan events such as the Hong Kong riots of 2019 and the Covid-19 pandemic have on balance diminished its international prestige. The relative restraint shown, for a time, by the mainland in dealing with the riots, and the relative effectiveness of the Chinese government in suppressing the pandemic, it seems safe to say, have not greatly increased the world's admiration for the Chinese political system. It is hard to ignore that the deeper causes of the riots and the reasons for the initial spread of the coronavirus are directly linked with fundamental characteristics of China's political regime. It has become obvious to many observers inside and outside mainland China that the only way China will ever win respect abroad and exercise an influence matching its hard power is for its political system to change and liberalize.

The two books under review in this article discuss how China can reform itself, embrace modern liberal values, and grow its international prestige by returning to its ancient Confucian traditions. They both advocate what they call "progressive conservative" or "progressive traditionalist" reforms—expressions that in Western political thought would count as contradictions in terms.

From Legalism to Confucianism

The fall of the Roman Republic in the first century BC and Rome's transition to autocracy under the Caesars is one of the archetypal narratives of Western civilization. Its lessons about the loss of freedom have hovered in the consciousness of the West since the Renaissance and have deeply marked the political thought of republican states into modern times. Since the time of Andrew Jackson, for example, there has hardly been a U.S. president who has not been denounced by political opponents as a new Caesar, eager to destroy liberty and republican self-government in his quest for personal power and glory.

The equivalent archetypal narrative in China is the story of how the warlords of the Qin state, after five centuries of division and civil war, united China in 221 BC under its first emperor, only to collapse fifteen years later. The Qin was replaced by the Han dynasty, which ruled a united China for over four hundred years. The standard explanation for the extraordinary success and dramatic collapse of the Qin was fixed already in the early Han by the statesman and poet Jia Yi. He wrote in a famous essay that the Qin had failed, despite all its wealth and military power, "because its ruler lacked humaneness and rightness; because preserving power differs fundamentally from seizing power."[6]

The first Qin emperor, Qin Shi Huang, is best known today for his astonishing mausoleum in Xi'an, rediscovered in 1974, containing a terra-cotta army of eight thousand warriors with weapons and chariots, whose purpose was to protect the emperor in the afterlife from evil spirits. The impression of ferocious militarism left by this monument is reinforced by the historian Sima Qian (c. 145–c. 86 BC), who tells us that the mausoleum required forced labor from seven hundred thousand workers to complete.

After it was built, thousands of craftsmen were intentionally buried alive in it, together with the childless concubines of the emperor, lest they reveal the presence of the treasures that had been entombed there.

The military success of the Qin, according to historians of the Han dynasty, could be explained by its embrace of a set of ruthless, utilitarian political ideas known today as Legalism. The term Legalism is misleading: it is not about the rule of law in the modern Western sense. As a school of political thought and practice it might better be labeled authoritarianism or political realism. It was born in a period of total war as a strategy for producing a “rich state and a powerful army.” This meant maximizing the coercive power of the state and subordinating all of economic, cultural, and intellectual life to that one aim.

In the view of Han Feizi, the leading theorist of Legalism—who has often been compared to Machiavelli—a major threat to the survival of the state was the ascendancy of Confucian thought in the “Warring States” period that preceded the Qin. Confucianism made the state weak. In part this was because, as a vision of political order, it granted too much independence of action to gentleman-officials whose only training was in classical Chinese literature. In part, Confucianism was bad for a state because it taught virtue and humaneness to its followers, and such values were of no use to Qin rulers and officials whose overriding goal was to make the peasantry productive and to train soldiers. “It is obvious that benevolence, righteousness, eloquence, and wisdom are not the means by which to maintain the state,” Han Feizi wrote. Most people are bad, and the only way to ensure their compliance with the state’s aims was through strict laws, impersonal institutions, and force. Dynastic administration should not be based on mutual trust and respect but on adherence to rules, surveillance, and denunciation of offenders. The contrary was taught by Confucian scholars, whom Han Feizi described as "the vermin of the state." The moral values they taught were "parasites" or "lice." They needed therefore to be rooted out and destroyed. Their ways of thinking and the traditions they upheld had to be erased.[7] Qin officials agreed: they organized the burning of all but a few books and the censorship of new books. In 212 BC, it is recorded, 460 Confucian scholars were put to death—buried alive—as dangerous subversives. Strict thought control was a necessity of state.

After the Qin collapsed, the historians of the Han dynasty came to a judgment about its Legalist approach to government. Their judgment remained the dominant view throughout the long history of imperial China, down to the late nineteenth century. The Qin had given China unity and wiped out the feudal nobility who had contributed so much to the disorder of the previous centuries. They had established a centralized government and organized a hierarchy of bureaucratic offices of state, modeled on the organization of their army. They had made China strong and given it an identity. So much was for the good, and some Legalist practices, indeed, continued to be observed by the Han and later dynasties—the *Book of Han* even had a chapter devoted to "Biographies of Cruel Officials." But the spectacular failure of the Qin after the death of the first emperor was the inevitable result of its hateful political philosophy. Stamping out China's ancient traditions and persecuting its literati, in particular, made it impossible to win the hearts of the people. Conquest could be achieved by terror and coercion, but establishing peaceful governance for the long term required willing obedience from the people. Only righteous, wise, humane officials could sustain trust in a dynasty over centuries, and training in the

Confucian tradition was the best way to secure such officials. The rulers of the Han, like all subsequent Chinese dynasties down to the Qing, accordingly made Confucianism the governing philosophy of China.[8]

It was only in the late nineteenth century, when China was again being torn apart ideologically from within and humiliated by barbarians from the West, that the political thought of Legalism came once again to the fore as a governing philosophy. Its greatest champion in the twentieth century was Mao Zedong (1893–1976), revolutionary and founder of the People's Republic of China in 1949. It was no accident that Communist Party governance under Mao was the Chinese regime that approximated most closely the harsh government of the Legalists under the Qin. Mao had been attracted to Legalism since high school, when he had written an essay in praise of Shang Yang, the founder of the Legalist school and chancellor of the Qin. His admiration of Shang Yang only increased in the course of his life. He openly endorsed Legalism in his later years, during the "anti-Confucian" campaign of the Cultural Revolution, and praised its compatibility with Marxism. As late as the premiership of Deng Xiaoping, Legalism was endorsed as a source for Mao Zedong Thought and hailed as "a progressive intellectual current both in its outlook and its historical role."[9]

The lessons of Chinese history, however, have not been lost on the present rulers of China. The struggles of China to extend its influence internationally have only highlighted the moral unattractiveness of the current Chinese regime and sowed doubts about its longevity. The legitimacy of the modern Communist Party, built since 1979 on the extraordinary performance of the Chinese economy, is now under threat as that economy falters. Will the Communist dynasty fail because of its regression to an unloved Legalist order, or can the Party transition to a more stable and morally appealing form of governance, led by a new generation of Confucian scholars? Can the militant government founded by Mao be civilized by the better traditions of ancient China, as happened in the case of the Mongols in the thirteenth century and the Manchus in the seventeenth? Can a humane Confucianism once again save China from the brutality and brittleness of a Legalism *marxisé*?

Progressive Confucianism

Thirty years ago the idea of a renewed Confucianism would have been, quite literally, unthinkable. Confucianism was then considered an heirloom of the past—a dusty treasure best displayed in the premodern wing of the national museum. Since then, however, "political Confucianism" has become a major school of modern Chinese political thought.[10] After initial suspicions, the CCP has gradually warmed to the Confucian approach to political reform. Confucian moral and political traditions were openly embraced and encouraged under Hu Jintao, who made Confucius the public face of China abroad by establishing the first Confucius Institutes. Confucius has been taught in Chinese public schools for almost two decades now, and his maxims have been constantly on the lips of CCP leaders. More recently, those applying for research grants in politics have discovered that support exists for themes related to Confucian theories of government, whereas funds have dried up for those interested in studying liberal democracy. One sign of official approval was the appointment of Daniel A. Bell—the leading English-language exponent of political Confucianism on the mainland—as dean of the School of Public Administration in Shandong University, a major center in China for the study of political meritocracy in the Confucian tradition.

It would be a mistake, however, to read political Confucianism or advocacy of political meritocracy as simply another arm of China's soft power campaign. Interest in Confucian political theory goes well beyond the mainland, for one thing, and participants in the movement can be found in Hong Kong, Vietnam, South Korea, Singapore, and the United States. Popular Confucian movements have arisen in China and among overseas Chinese communities with little support from the CCP.[11] There is a wide range of opinion about the compatibility (or not) of Confucian political ideals with liberal democracy, the rule of law, human rights, and modern aspirations for global governance. There is a general belief among modern Confucians, expressed with increasing boldness, that the behavior of the Chinese government in the past under Mao and even in the present deserves sharp criticism and should change in a way that takes its bearings from the older moral traditions of China.

Two books published early this year, both by mainland Chinese scholars, reveal the reforming zeal animating the movement. The first is *Just Hierarchy: Why Social Hierarchies Matter in China and the Rest of the World*, by Daniel A. Bell and his wife Wang Pei, a professor of politics at Fudan University in Shanghai. The second, by Tongdong Bai, also of Fudan University, is entitled *Against Political Equality: The Confucian Case*. The two works are complementary in that both defend a Confucian political outlook at odds with Western ideals of popular sovereignty and political equality. Both urge liberalization and partial democratization of the Chinese regime in line with updated Confucian principles. Both see the rise of populism and Trumpism in the West as sharpening the argument for Confucian meritocracy. But there are important differences between the two projects as well.

Bell and Wang's book is an academic trade book directed to a wide audience, written in crystalline, engaging English prose. It makes the most compelling case ever made in English for a Confucian reform of social and political values in China and perhaps elsewhere. It argues, against the presumptions of corrupt egalitarian culture in the West, that expressions of hierarchy—social, political, and international, as well as hierarchies among living species and between living creatures and machines—can be justified via normative appeals to natural laws. Hierarchies are a result of natural selection, a normal and efficient defense mechanism adopted by human communities. "It's a pipe dream to imagine that a large-scale society . . . can be organized in a non-hierarchical, horizontal way." The only hierarchy recognized by the kind of progressive thought currently dominant in the West, by contrast, is between those who accept "science" and those who reject it.

Bell and Wang do not quite reject the dogmatic scientism of Western elites, but maintain that it needs guidance from the moral traditions of ancient China. They argue that, since no society can ever exist without hierarchies, an important task of moral and political philosophers is to evaluate which hierarchies are just, such as those based on compassion and care for others, and reject unjust ones, such as those based on wealth. Bell and Wang are both social liberals, however, and want to see China embrace modern values such as female equality in the workplace, economic fairness, environmentalism, toleration of alternative lifestyles, and so forth. The surprising part of their argument for Western progressives is the contention that "traditional hierarchies, properly reformed and updated for modern societies, can serve progressive political goals." Unlike "woke" progressives in the West today who tend to believe that any valorization of the Western tradition represents an obstacle to the improvement of society, Bell and Wang maintain that affirmation of ancient Chinese traditions can support progressive political causes. Progressive values can have more purchase on the popular will when they spring from deep-rooted, prestigious cultural traditions and shared history.

Traditionally, Confucianism taught that harmony in society required the maintenance of the "five relationships," and that realizing the moral nature of mankind, following the Dao, meant acting well in the roles dictated by those relationships: between friend and friend, elder brother and younger brother, husband and wife, parent and child, ruler and ruled. Bell and Wang's book provides an updated version of the five relations, showing how modern hierarchies can be justified through a generous interpretation of Confucian morality. They defend just hierarchies among intimates and members of a household, among citizens, among states, among animal species, and between human beings and machines. They engage critically with those in the West who use egalitarian premises to advocate the abolition of traditional households and to defend large-scale electoral democracy, global governance, equal rights for animals and children, and political systems that allow large private corporations to control powerful technologies. A China reformed along Confucian lines, a China that rejected its totalitarian/Legalist past, a China led by humane, well-educated, and public-spirited individuals with unencumbered power, would be able to reject all these Western pathologies.

Among conservatives in the West the most controversial part of this program is likely to be the proposal for a “vertical political hierarchy,” first advocated in Bell’s well-known 2015 book *The China Model*.[12] The proposal resolves the traditional tension or opposition between meritocracy and democracy by establishing democratic institutions only at the local, municipal level. At higher levels of government—provincial and national—rule is meritocratic. Entry to and political rank within the meritocratic hierarchy should be determined by performance on civil service examinations and a proven track record of effective and compassionate government in the interests of the whole community.

The sticky issue here for political Confucians has always been legitimacy. Bell and Wang argue that one-man, one-vote democratic elections, taken in the West to be the gold standard of legitimacy, are an inadequate basis for legitimacy in the case of a large, powerful state rooted in an ancient civilization. Even with universal suffrage, democratic voters do not, for instance, represent well the interests of past and future generations—for example, when the current electorate destroys the cultural heritage left to us by our ancestors or saddles future generations with unpayable debts. Democratic electors, focused on their own present interests, also have difficulty recognizing the moral claims of resident aliens and foreign peoples who may be affected by the decisions of their states. Not all democratic political values can apply to large states run meritocratically. Transparency, for example. Bell and Wang argue that secrecy in certain functions of government—particularly the selection of officials—is legitimate. A number of Confucian political theorists have recently argued that an autocratic command structure in a state—a decision-making process that ultimately rests on the will of a single person—is always in practice restrained by informal "constitutional" limits on a ruler's power, and rightly so. The Confucian tradition of imperial China is rich in debates about precisely this issue. Bell and Wang argue that practices can be adopted, or in some cases already exist, that limit the corrupt exercise of arbitrary power. A "first among equals" ethic of power at the highest levels, a system of recommendation that holds the patron responsible for the failures of his clients, the practice of regular consultation with the people via local democratic assemblies, and, above all, widespread education in Confucian values such as compassionate care for the people—all these means, taken together, can make an autocratic state humane and attract the love and loyalty of its citizens.

Against Political Equality

Bell and Wang write in English for a wide audience interested in Chinese political thought, but they claim not to be proselytizers for global Confucianism. Confucianism for them is a civilizational wisdom containing some elements that may appeal to other countries in East Asia with Confucian traditions such as Korea, Japan, Taiwan, and Vietnam. While they "do not entirely forsake the aspiration to universality," they "do not expect [their] arguments . . . [to have] much persuasive power outside of China."[13] Tongdong Bai's new book, *Against Political Equality*, however, directed to an academic audience of political theorists, expresses no such hesitation concerning the transcultural applicability of his Confucian model of government. The "hybrid regime" he advocates, which resembles Bell's mixture of local democracy with meritocracy at the higher levels, presents itself as a Weberian "ideal type." Bai's account of it is "not only theoretical but is also meant to be practical." His model is intended as "universal, applicable to any state" whose citizenry is largely ignorant of political questions and driven by self-interest, which is to say all modern democratic states.[14] For Bai, Confucian political ideals are a cure not only for the moral failures of the Communist totalitarian state, but also for the ills of liberal democracy.

Bai is a major proponent of political Confucianism and, like Bell and Wang, positions himself as a progressive traditionalist. He is perhaps somewhat less socially liberal (he has harsh things to say about American identity politics, for example) and more unbuttoned in his criticisms of the current Chinese regime. The book synthesizes work Bai has done on meritocracy for over a decade, work that aims to find a place for liberal democratic values within an overarching Confucian vision of society. He wants to see China embrace more protections for personal liberties, the rule of law ("the gem of liberal democracy"), a degree of cultural pluralism, and greater freedom and status for women. He has lived for long periods in the United States and this experience has made him a sharp and perceptive critic of the excesses of egalitarianism.

The project of the book is to demolish the Western principle of political equality, enshrined in "one man, one vote" electoral systems. For Bai, the reverence this principle inspires in the West is the main obstacle to accepting the sounder Confucian principle of rule by well-educated and moral elites. Bai argues that all societies have their own forms of equality, but that these are mutually incompatible. If political equality is basic to your system, you will inevitably have social and economic inequalities, and disparities of social and economic power will exercise undue influence on political outcomes that on the surface may look democratic. The Confucian alternative of social and economic equality coupled with political meritocracy, "government of the people and for the people but not *by* the people," would produce fairer and more enlightened outcomes. The tumultuous and morally debased public life of modern democratic societies would become orderly and stable.

Bai draws on Plato's *Republic* to make the case that all societies have an honor-seeking element—a portion of the population driven by the desire for success and recognition. This element has to be accommodated somehow by the prudent political philosopher and made to benefit society as a whole. Neoliberal thinking in the West has failed on this score. Since American society is socially and politically egalitarian, people seek honor by making money and have contempt for politics. When wealth is the determinant of status, a society will become competitive and selfish. Huge disparities of rich and poor will appear. Politicians then become mere puppets of the rich. Bai's ideal Confucian society will have relative economic equality, but will allow the honor-seeking element in society to seek rank and status in the political system. This status is accorded, however, on the strict condition that officials serve "all under Heaven." Unlike Maoist ideology, which holds that the virtuous peasant should be the model for everyone, Bai's updated Confucianism includes in the category of "all under heaven" many ways of life, not only peasants but also tradesmen, businessmen, professionals, service workers, and government officials.

A new frontier opened by both of the books reviewed here is the question of how Confucians should conceive of international relations. Both books criticize the Western-led liberal international order with its faux egalitarianism among nations, its culturally insensitive notions of justice, and its one-size-fits-all programs for human betterment. They see the swarm of NGO activists, hectoring foreign leaders, and crusading journalists as just the latest instantiation of Western imperialism, this time attempting to colonize minds rather than territories. A more realistic assessment of the wealth and power of nations today would reckon that only a few nations are potential hegemons over others. Some states are strong enough to be independent, while other states, poorer and weaker, will inevitably stand in some sort of clientage relationship to more powerful states. A global regime based on Western understandings of human rights is unrealistic now that the United States is no longer the "hyperpower" that it was thought to be in the 1990s. It is equally unrealistic to pretend that the rulers of states should not owe their primary obligations to their own people, or that informal hierarchies among states do not already exist. The key point is that international hierarchies will work best when they are regulated by moral principle and not by the lust for power, wealth, or ideological dominance.

Here too, our authors believe, the Confucian tradition provides useful models for state interactions. Bai updates the Confucian conception of *tian xia*, a model of international order where a Middle Kingdom acts as a source of power and civilized values and allies itself with sympathetic states at its periphery against *yi* or barbaric states. In the case of barbarous states, defined as those ruled by tyrants who harm their own people, the use of force can be justified. In the case of civilized states, only peaceful relations are legitimate. Good Confucian states will practice some form of reciprocity in their dealings with other states. This can be (in Bell and Wang's formulation) "weak reciprocity," built on mutually advantageous but temporary, unstable trade deals and low-trust alliances. (Both authors use the current policies of the Trump administration to illustrate this kind of reciprocity.) Or states can build relationships characterized by "strong reciprocity" based on shared civilizational ideals, knowledge of each other's culture, and pooling of economic and security interests. The "special relationship" between the United States and Britain is given as an example. Both kinds of relationship are licit, but strong reciprocity is vastly preferable to weak reciprocity. It is more stable and based on mutual trust, reinforced by interests and a shared civilization. A world where a few hegemonic powers take the lead over hierarchies of states bound together in strong reciprocity will much better manage global challenges such as climate change, both books argue, than a Westphalian system of 206 notionally equal states in open and unstructured competition with each other. It's easier to get a few top dogs to agree than to herd cats.

Waiting for the Dawn

Confucians are moral idealists but tend to be pragmatic when it comes to the arts of government. Before modern times the closest a Confucian scholar ever came to writing utopian literature was a mirror for princes written by the soldier, historian, and political theorist Huang Zongxi. The work was finished in 1663, some two decades after the Ming dynasty was destroyed by Manchu invaders from the north. After the final defeat of the Ming, Huang retired to his hometown in Zhejiang Province to take stock of the failures of imperial Chinese government—not just of the Ming but of all China's dynasties going back to the Qin. His goal was to outline a "grand system of governance," an ideal model for how Confucian principles might some day be restored, avoiding the mistakes of the past. His remaining hope was that he might one day be "visited by a prince in search of wisdom." Huang had accepted that the barbarous Manchus would never be expelled, but Ming civilization neither could nor would be forgotten. The wheel of history would someday raise China up again, and Confucian wisdom, enriched by historical experience, would once again be needed. “Dawn is just breaking and the light is still quite faint, but how could I, on this account, keep my opinions to myself?” Huang entitled his book *Waiting for the Dawn*.[15]

It is obvious to many today inside and outside of China that the world’s most populous country—and perhaps, someday soon, its richest—will not take its rightful place as a leading nation, exercising a power that is benign and welcomed by other nations, so long as it clings to its poisoned heritage of Maoist Legalism. Yet it doesn’t follow that the way forward for China is to adopt the Western forms of liberal democracy and human rights. Since the Tiananmen Square protests of 1989, many in the West have expected that China will join the rainbow of “color revolutions.” Those who believe history moves in a single direction towards an end may still believe a democratic revolution is inevitable. Such an outcome would stroke the egos of Americans and Europeans who believe in the superiority of our own Western values and political institutions; we want to believe a democratic revolution must come. But it is not inevitable. It is not, in my view, even likely. The reasons why lie deep in China’s history.

For one thing, liberty was never celebrated as a political value in traditional Chinese society as it has been in the West since Greco-Roman antiquity. Mostly, one suspects, this is because of the relative insignificance of slavery in Chinese civilization. The dynastic legislation of Chinese governments repeatedly abolished slavery, on Confucian grounds, from the Han dynasty forward. This did not prevent some kinds of small-scale, household slavery from cropping up at intervals in Chinese history, but chattel slavery never became the major social and economic institution it was in the West. Hence the struggle for personal liberty has never gathered the kind of moral force behind it that eventually triumphed in Western slave societies during the early modern period.

What has been strong in the Confucian tradition since Chinese antiquity is commitment on the part of educated elites to care for the common people. The definition of the *junzi* or superior person—the goal of Confucian education—is precisely that he puts the interests of others before his own. Since the quasi-mythical times of the sage-rulers Yao and Shun, the standard of political legitimacy has always been the ruler's virtue, revealed by his justice and his care for the people. In the West since the seventeenth century the origins of government have been imagined as the striking of a contract among free and equal individuals. In China, the Confucian tradition has always taught that kingship and civilization came into existence together in primordial times, when wise monarchs brought order to chaos, created a ritual linkage between heaven and earth, and selflessly taught the people to flourish in peace and harmony.

China also has never had a deep tradition of what Aristotle called "political rule," that is, power-sharing arrangements in small city-states. As the Jesuit missionary Matteo Ricci noted in the 1590s, China since time immemorial had followed a monarchical form of government and had never even heard of other constitutions such as aristocracy, democracy, or oligarchy. Before 1912, political power in China changed hands many times via dynastic coups, civil wars, and invasions, but never through sociopolitical revolutions led by intellectuals. The experience of such violent revolutions in twentieth-century China, despite CCP propaganda, has not endeared them in the memory of modern Chinese.

The imperative for China for 150 years has been to modernize, to catch up with the West in science, technology, military, and economic power. Its own survival required it to become modern, but now that goal has been reached. Now it faces the same choice Japan faced a century ago. The Japanese somehow negotiated a cultural compromise that allowed them to be both modern and Japanese. The Chinese too face the challenge of being modern but still Chinese. Unlike the Japanese, it is unlikely they will adopt something resembling Western liberal democracy; only defeat by the United States made that possible in Japan. China cannot and will not become a Western-style liberal democracy. It is too strong and too proud of its ancient civilization for that. But it may be possible for it to restore and update what it was for two thousand years, at least in historical imagination: a humane Confucian state. Many people today all over the world are waiting for the dawn, but in China there is increased confidence that the sun, when it rises, will rise in the east.

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Notes

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Winning the Race in Quantum Computing

ARTHUR HERMAN APRIL 18, 2018

Imagine a computer solving the mathematical problems that today's fastest supercomputers can't begin to unlock, in less than a blink of an eye. Imagine a technology that can enable an observer to see through walls, or see into the darkest depths of the world's oceans. Imagine a technology that can build essentially unhackable global networks, while rendering an antagonist's most secret data instantly transparent.

All these are characteristics of quantum computers and quantum technology, which will define the future of global information technology for decades, possibly centuries, to come. It represents a revolution as profound as any in modern history, and it's one on which we stand at the brink, with all its promise—and its perils.

The twentieth century saw humanity unleash and harness the almost unimaginable power of the atom, and so launch a new era in human history, the Nuclear Age. Now we are witnessing the birth of a new era in information technology based on the power of quanta. In the Quantum Age, computers will draw their computational capability from the complex and counterintuitive principles of quantum mechanics, which may transform the world almost as decisively as the Nuclear Age did.

Quantum computers won't look like today's computers. They won't have a keyboard or a monitor. They will be complex installations, impressive monuments to physics and engineering using cryogenics for cooling lasers in subzero temperatures, along with other solid-state and optical devices.

Today, more than twenty nations are competing to win the quantum future. One of those is the United States, whose major IT companies—Microsoft, Intel, Google, IBM—are currently leading efforts to develop the world's first fully functional quantum computer.

Another competitor is China, which recently announced that it will create an $11 billion, four-million-square-foot national quantum laboratory in the city of Hefei. This facility will be dedicated to making China a global leader in quantum technology, helping China achieve what experts call "quantum supremacy": the moment when a quantum computer can do tasks that a classical or digital computer, even today's most powerful supercomputers, cannot.

China has already shown its skill in developing quantum technological applications, such as the 2016 launch of the Micius quantum satellite, a crucial step in establishing a secure ground-to-space quantum communications network. The Chinese have also made key advancements in developing a similarly unhackable 2,000-kilometer quantum communications network from Shanghai to Beijing. Chinese military scientists even claim to have engineered a quantum-based "radar" capable of penetrating today's current stealth technologies—technologies that have served as the foundation of American military air supremacy since the Gulf War, as well as of the U.S. Navy's most advanced stealth submarines.[1]

Russia is also investing in quantum computing, spearheaded by the Russian Quantum Center (RQC). Scientists at the RQC announced in July 2017 that they had achieved a major breakthrough in creating a quantum computer that can do general computations—an important landmark on the road to "quantum supremacy."[2] Even North Korea has announced plans to become "a quantum power" in the twenty-first century.

As Representative Will Hurd of Texas, chairman of the congressional subcommittee on information technology, put it: "The impact of quantum on our national defense will be tremendous. The question is whether the United States and its allies will be ready" when the full quantum revolution takes hold.[3]

The implications of the quantum race are profound. The outcome will determine the twenty-first-century answer to an age-old question, the one posed in *Alice's Adventures in Wonderland*: "Who is to be master?"

That question was answered in the seventeenth and eighteenth centuries by the country which possessed the biggest navy and the most colonies: in that case, Great Britain was the master. In the nineteenth and twentieth centuries it was the country that had the most advanced military technologies and the biggest industrial base, including nuclear weapons. In the end, the United States emerged on top.

In the twenty-first century, supremacy will belong to the nation that controls the future of information technology, which is quantum. As we will see, it would be a mistake to assume that the United States is destined to be in this position. In the topsy-turvy, counterintuitive world of quantum mechanics and quantum computing, decades-long dominance in IT doesn't automatically translate into dominance in the coming era. But strategy and commitment of resources, including funding, almost certainly will—and with it, the balance of the future.

What Quantum Can Do, and What It Can't

How does quantum computing work, and why are quantum computers destined to be superior to conventional digital computers?

The answer lies in the bizarre world of quantum mechanics, where subatomic particles like electrons and photons can seemingly exist in multiple states (physicists call this superposition). All current computers, even supercomputers, process data in a linear sequence of ones and zeros. Every "bit," the smallest unit of data, has to be either a zero or a one. But a quantum bit or "qubit" can be a zero and a one at the same time, enabling multiple computations at once. So while a traditional computer has to sequentially explore the potential solutions to a mathematical problem, a quantum system is able to look at every potential solution simultaneously and generate answers—not just the single "best" but nearly ten thousand close alternatives as well—in less than a second: roughly the equivalent of being able to read every book in the Library of Congress at once, instead of one at a time, in order to find the one that answers a specific question.

Add more qubits and the quantum computing power actually grows exponentially—i.e. reading every book in the library at once happens faster and faster. So while conventional computers rely on huge numbers of transistors to achieve their computing speed, quantum computers use atoms and subatomic particles as their physical system. No one can predict where the particles will end up, or what form they will eventually take. As MIT physicist Seth Lloyd put it to *Wired* magazine, “Quantum mechanics is just counterintuitive and we just have to suck it up.”[4]

But the numbers work, as do the computations. For example, Google and NASA are currently using a quantum computing machine (the D-WaveX2) that can do certain computations at one hundred million times the speed of a traditional computer chip—and that operates 3,600 times faster than the world’s fastest digital supercomputer.

There are, in fact, three types of quantum computers currently in use. The D-Wave system is an example of a quantum annealer and is used for solving sampling and optimization problems, such as finding the best route between two points—something classical computers have great difficulty doing. Quantum annealers do not try to manipulate the qubits while they are computing, and therefore they can do calculations using one thousand qubits, which become entangled (able to exhibit multiple states) more or less at random.

The second type of quantum computing model is that of an analog emulator, which can simulate physical processes. This might include, for example, simulating certain aspects of the earth’s climate in a controlled experiment or simulating the best way for electricity to be transmitted without loss. These simulators have been built with up to fifty-one qubits.

A universal quantum computer—the Holy Grail of quantum computing (and what most commentators are referring to when they discuss quantum computing)—would be able to run any type of algorithm and discover patterns in data sets that existing computers cannot analyze. The computing power needed for a universal quantum computer, however, requires entangling the qubits throughout the entire time of computing—a very difficult feat. At the moment, only twenty qubits have been effectively entangled in such a quantum computer.

Why is getting to the universal computer standard so difficult? Since subatomic particles are inherently unstable, keeping sufficient numbers of qubits entangled long enough to do calculations takes persistence, time, and resources.

The instability of qubits is called decoherence, and it is one of the chief engineering problems facing quantum scientists. When a qubit decoheres, it loses its superposition and can no longer act as both zero and one at the same time, but only one or the other, thus losing the ability to compute in a quantum manner. A qubit can decohere due to the slightest disturbance, which is why engineers are working on ways to mitigate the effects of minute disruptions of light, sound, and movement—and also why many quantum computers are built inside vacuums.

Nonetheless, a quantum computer capable of solving problems that would stump a classical computer is close at hand. Experts believe fifty qubits will be the formal threshold of "quantum supremacy." IBM recently claimed that its quantum computer had crossed the fifty-qubit threshold, but only for a few nanoseconds.[5] A breakthrough to genuine quantum supremacy is now a matter of applied engineering rather than scientific research—and only a matter of time.

Most experts agree that quantum computers will never completely displace conventional digital computers. Yet they will be deployed in an increasingly wide range of research activities and other complex tasks, bringing enormous improvements in performance and efficiency to areas such as weather forecasting, medical and genetic research, and tasks such as calculating traffic flows in the world's biggest cities—a task that D-Wave, a Canadian company, has already undertaken for China's capital Beijing.

And there is one thing quantum computers will be able to do that conventional computers cannot: hack conventional encryption systems around the world.

No More Secrets: Quantum and Cybersecurity

Many experts agree that the new possibilities arising from advances in quantum computing will create a mortal threat to today's IT security. An algorithm formulated by mathematician Peter Shor in 1994 demonstrated that quantum computers will be able to factor large numbers far more efficiently than classical computers. As it happens, the difficulty of conducting large-number factoring is the foundation for most of today's encryption standards.

As a September 2017 article in the journal *Nature* warned: "Many commonly used cryptosystems will be completely broken once large quantum computers exist."[6] Most quantum experts believe that such a breakthrough may only be a decade away. Others are convinced it may come even sooner.

Either way, the coming years will witness the advent of a quantum computer powerful enough to break the encryption techniques currently used billions of times every day. Its first and foremost target could be the encryption system known as RSA, an algorithm that is the cryptographic method of choice for consumer bank transfers, credit card payments, online shopping, and email encryption.

The asymmetric encryption system currently used to protect credit card information and bank accounts relies on two keys. One key is the "private key" and consists of two large prime numbers known only to one's bank or to services such as PayPal. The other key, called the "public key," sits in cyberspace and is the product of multiplying together those two "private" prime numbers to create a semi-prime number. The only way a hacker could access encrypted credit card or bank information would be by factoring the large "public key" (often six hundred digits or more) back to the correct two numbers of the "private key"—a Herculean computation task that would take too long for a classical computer to solve.

A future quantum computer, however, will be able to do such a computation almost instantly. Even blockchain will not be able to withstand the first quantum attack if it relies on two-key encryption architecture—the architecture protecting nearly all digital information today.[7]

This includes our leading financial institutions, including Wall Street; our power grid and water systems; the nation's food supply and energy resources; as well as the entire federal government. As Jason Bloomberg of Intellyx concluded in a *Forbes* article, "Welcome to the cyber-battlefield of the 21st century"—a battlefield that will be dominated by quantum technology.[8]

Fortunately, as Dr. Aaron VanDevender, chief scientist at Founders Fund, observed during a conference at the Hudson Institute this past October, when it comes to quantum, the problem is also the solution. All over the world, research institutes, universities, and businesses are in a race against the clock to develop appropriate solutions and stopgaps to forestall a Quantum Pearl Harbor that overwhelms the world's leading encryption systems. For example, quantum-resistant algorithms (QRAs), which use grid-based, multivariate, code-based, and hash-based encryption techniques, are being developed. Theoretically, these cannot be undermined by quantum computers. Unfortunately, many of these cryptosystems will not be as effective for safely transmitting sensitive data such as financial information.

For that task, quantum technology itself is needed. Companies like SK Telecom are now using quantum technology to create random number generators (QRNGs) that, when coupled with quantum key distribution (QKD), can function as the equivalent of a cryptographer's one-time pad to protect communications between users. This allows two parties to produce a shared random secret key to encrypt and decrypt messages.

One of the advantages of QKD is that it can alert its users if someone else tries to gain access to the communication or know-ledge of the key. It can do this because of a fundamental property of quantum mechanics: trying to measure a quantum system actually disrupts the system. Therefore, a third party trying to eavesdrop on a QKD-protected communication will introduce anomalies that sever the connection—with both parties at either end instantly knowing what has happened.

Quantum key distribution can only produce and distribute a key; a second channel is needed to transmit any actual message data. Yet sending the key over long distances requires a quantum repeater, which has yet to be invented. Therefore, scientists are currently only able to create effective quantum communication networks over about 70–200 kilometers, usually made up of fiber optic cables. Quantum connectivity equaling a world wide web with multiple quantum channels is still years away. All the same, the Chinese are busy laying the foundations of such networks today, and these will become the secure information superhighways of tomorrow.

In the final analysis, the nation that takes the lead in quantum technology over the next decade will not only have enormous advantages in decrypting and exposing secrets—including the capacity to take over entire IT infrastructures in both the public and private sectors—but also the ability to render its own communications and networks largely hackproof.

But quantum technology's impact on strategic balance isn't just limited to encryption. Quantum sensing, the use of quantum technology to measure tiny variations in gravitational fields even at great distances, and quantum optics, will dramatically change the landscape of military technologies in the coming years. Through quantum metrology technologies, objects that are invisible to the most advanced sensors will become "visible" to quantum sensors, even objects behind steel walls or at the bottom of the ocean. Developments in this arena will have a profound effect on today's militaries, including the ability to detect submarines or subterranean weapons systems normally considered hidden from view.[9]

America's current advantage in stealth technology, for example, would almost instantly vanish, and the electromagnetic stealth technologies deployed as part of the $1 trillion F-35 Joint Strike Fighter program, intended to give the United States and its allies air dominance well into the twenty-first century, would become virtually obsolete.

This is why Congressman Hurd's warning stands: the impact of quantum technology on our national defense will be tremendous. The question is whether the United States will be ready when the full quantum revolution takes hold, in a decade or less.

There are in fact two critically important aspects of quantum readiness—and of winning the quantum race. The first and most obvious need is for the United States to achieve quantum supremacy through developments in the field of quantum computing. The second, equally if not more important, is making our nation's infrastructure, including government and financial institutions, secure from quantum attack.

How Ready Is the United States?

In terms of quantum computing, no one doubts that the American private sector leads the way. Google, Microsoft, Intel, and IBM have been actively engaged in quantum computing research for almost a decade.

Google announced in 2017 that it would achieve "quantum supremacy" by the end of the year—although that breakthrough will now probably come sometime in 2018.[10] IBM has successfully built and measured an operational prototype fifty-qubit processor with similar performance metrics. This new processor expands upon the twenty-qubit quantum computing system accessible to third-party users through their cloud computing platform, and which will be made available in the next-generation IBM Q systems. Intel announced the creation of its seventeen-qubit chip for quantum computing in October, and, even more recently, Microsoft announced that it would release a free preview version of its Quantum Development Kit, which includes the Q# programming language.

Start-up Rigetti Computing—a company that proves quantum computing research is not limited to the megafirms—is also developing software for future quantum computers, including its own, as is IBM.

Other start-up quantum computing companies are attached to universities, such as IonQ, a company formed by the University of Maryland in order to commercialize quantum technologies created in their laboratories. Another is Quantum Circuits, which sprang out of the Yale Quantum Institute. Quantum communication technology has also drawn attention from large and midsize American firms including AT&T, Raytheon, and HRL Laboratories.

But how close is the United States to becoming "quantum secure"? That depends on whom you ask. Government officials, particularly at the National Security Agency and the National Institute for Standards and Technology, which oversee the government's efforts in quantum cyber protection, tend to give a relatively optimistic answer. Others, particularly quantum cybersecurity experts in the private sector, are gloomier.

For one thing, the number of American firms offering quantum cybersecurity solutions is practically nonexistent, with research still located inside academic and government laboratories. By contrast, countries such as Canada, Australia, Switzerland, and Germany are home to industry leaders who offer a growing suite of commercial products.

Among the IT giants, only Google has shown an interest in quantum cybersecurity. The rest are focused on developing computers for commercial applications. Important as these applications may be, the private sector's neglect of quantum cryptography is significant and alarming.

There is a tendency to assume that once the IT giants have built their quantum computers to their satisfaction, their investment and expertise will naturally shift to quantum cybersecurity. Yet this is by no means a given. The field of quantum computing is populated by people with backgrounds in physics, particularly quantum physics. Cybersecurity, on the other hand, is a field that attracts mathematicians or people with a computer science background. This creates a conceptual gap that cannot be easily bridged, even within the same company. Or, rather, it is a gap that will require government leadership to overcome.

So where is the U.S. government on the issue of quantum cybersecurity? Today it spends roughly $200 million a year on all areas of quantum research, not just quantum and post-quantum cryptography.[11] That money is spread over multiple agencies including the Department of Energy, the National Security Agency (NSA), the Air Force Research Lab, darpa and iarpa, the National Science Foundation, and the National Institute for Standards and Technology (NIST). NIST has made post-quantum cryptography its particular bailiwick, and over the past several years has hosted a series of conferences on setting standards for quantum-resistant algorithms, the next taking place this spring.

NIST has publicly stated that federal government agencies should be ready to switch to what it calls "post-quantum" encryption by 2025—a timeline that looks very slow compared to the gathering threat of quantum computer assaults, particularly from China.

In sum, despite the significant work being done at Los Alamos, other national labs, and the Department of Energy, the evidence hardly suggests a concerted national effort, certainly not compared to other countries that, with a much smaller resource base, have made investing in quantum technology a national priority.

We can contrast our lack of national priority on quantum with what is happening in China. The level of Chinese investment and effort in the quantum sector is staggering: more than thirty times that of the United States. Chinese quantum research dates back to 2004, when scientists proved a five-photon entanglement experimentally. In 2013 Chinese technicians successfully set up a quantum communications experiment covering a distance of over one hundred kilometers, and in 2015 China's main quantum research group teamed up with Alibaba to found a designated research lab for quantum computing.[12]

China made global headlines in August 2016 when it launched the world's first quantum communications satellite to test long-range entanglement and QKD. Beijing plans to launch another quantum satellite in the next year, with the goal of laying the foundations of a “global quantum internet” under Chinese control, and establishing quantum secure communications, including for China’s armed forces.

But the biggest step came with the creation of the massive (91-acre) quantum research facility, the National Laboratory for Quantum Information Science, at Hefei in Anhui province. The facility will have a budget of $11.4 billion over two and a half years. Its agenda is more than simply scientific research. As China’s leading quantum expert Pan Jianwei announced, it will also develop quantum technology “of immediate use to the [Chinese] armed forces.” These include quantum metrology to improve stealth operations for submarines, as well as the first large-scale Chinese quantum computer which can penetrate the West’s encryption systems.[13]

Even more alarming from a national security standpoint is that China has found ready collaborators on important quantum technology in Western countries, including the United States. The 2013 breakthrough in using quantum computing to solve linear equations, for example, was done with the help of scientists from Canada and Singapore. Indeed, an Australian study of Chinese intellectual property theft found that scientists from multiple nations, including the United States, have routinely cooperated with Chinese quantum research funded by the National Natural Science Foundation of China, the Chinese Academy of Sciences, and the Ministry of Science and Technology.[14]

Together with Google’s recently announced decision to open an artificial intelligence research facility in China, the level of cooperation on quantum with China should raise national security concerns, both for the United

States and its allies. Yet as Anton Zeilinger—a physicist at the Austrian Academy of Sciences in Vienna who tried but failed to raise funds for a European quantum satellite—has warned, the lack of robust quantum investment strategies in the West and slow decision-making processes will tempt more American and Western scientists to solicit support from China.[15]

Creating a National Quantum Technology Strategy

What do we need to do? Last October I published an op-ed in the *Wall Street Journal* calling for a Manhattan Project–style investment in a National Quantum Initiative: an investment not solely in terms of funding, but in terms of creating a coordinated national effort that harnesses the energies, experience, and innovative instincts of the private sector to a coherent and comprehensive national strategy. "Like its atomic predecessor," I suggested, "the new program should marshal federal government money, the efficiencies of private industry, and the intellectual capital of the nation's laboratories and universities, while keeping everyone focused on the essential mission: winning the quantum race."[16]

Such a National Quantum Technology Security Strategy would for the first time establish clear strategic objectives for America's quantum efforts. It would determine technological priorities (e.g. quantum and post-quantum cryptography versus quantum computing), and set realistic timelines for crucial technological development. It will then outline a roadmap for achieving those established strategic objectives, as well as propose a desired budget (the National Photonics Initiative, for example, has called for an additional $500 million of federal funding over five years for such a

Quantum Initiative—a fraction of what the Manhattan Project would cost in today's dollars).

The strategy would also target key physical assets in need of quantum security, such as power plants and distribution facilities, communication systems, data centers, transportation infrastructure systems (including transportation vehicles critical for the food supply), and water supply systems, as well as the nation's governmental and financial infrastructure.

In addition, an executive order calling for a National Quantum Strategy would also establish a National Quantum Security Council. Such a council would be co-chaired by the director of the National Institute of Standards and Technology and deputy director of U.S. Strategic Cyber Command, with the commander of the Air Force Research Laboratory and the senior director for cybersecurity on the National Security Council serving as vice-chairs. Other members would include representatives from NIST, and representatives from leading universities and research labs such as Livermore and Los Alamos.

In the end, the goal of a National Quantum Technology Security Strategy would be to focus on the development of quantum technology by effectively assisting the private sector, while taking into consideration that private sector goals might not fully align with national security priorities. At the same time, given that the United States currently lags in the quantum cryptography field, it is important for lawmakers to realize that America can't achieve this strategy entirely on its own. Winning the quantum race will also require the help of our closest allies.

Creating a U.S.-Led Quantum Alliance

Therefore, the second step for making America quantum secure is the formation of a Quantum Alliance. The essence of progress in any new science is collaboration and information sharing. Unfortunately, in quantum computing and in quantum cybersecurity, the general pattern of U.S. cooperation, even with close allies, has largely been at the basic research and university level, with very little or none at the government-to-government or government-to-corporate level.

For example, this has been the pattern with America's closest quantum neighbor, Canada. As the former director of the Canadian Institute for Quantum Computing (IQC) at the University of Waterloo remarked in an interview, there has not been much systematic cooperation at all between the U.S. and Canadian governments. "Quantum Canada" has worked with the University of Maryland and its quantum computing start-up IonQ; IQC has also done contract work with darpa and with iarpa on specific projects—but only at the research level.[17]

Likewise, when the University of Southern California launched a quantum initiative with a $95 million budget, IQC was able to obtain some of that money for research work conducted in Waterloo, but no larger collaborative enterprise emerged from the project. The same was true when IQC and Canadian Quantum Valley Investments joined together with Lockheed Martin, Schlumberger, and Sunny Brook on specific quantum technology projects.

In the case of the private sector, Canada's D-Wave has had several contracts with American companies and with the U.S. government, including NASA. On the quantum cybersecurity side, isara Corporation has some clients in the United States although the bulk of its business is still in Canada. But as of today, it's hard to find any evidence of systematic cooperation between Canada and the U.S. government on quantum cybersecurity, or with any U.S. cybersecurity firms.

The same pattern applies in the case of U.S. cooperation with another ally, namely Australia. When asked about Australian collaboration with the U.S. quantum sector, Dr. Jane Melia of Quintessence Labs, one of Australia's largest and most innovative companies in quantum cybersecurity, replied that "There exist collaborations between Australian and other international research institutions. There are also international QKD conferences (such as QCrypt, typically in September each year) attended by scientists from both countries." She went on to add, "and of course we read each other's papers!" But more deliberate bilateral quantum cooperation remains a long way off.

In the case of the UK, U.S. companies such as Google, IBM, Lockheed Martin, Raytheon, Northrop Grumman, and QuSpin have partnered with the Birmingham University Information Tech nologies Hub, the largest of the UK hubs which is working to build a quantum computer demonstrator to present a "networked, hybrid light-matter approach to quantum information processing."[18]

Otherwise, any strategic planning for sharing quantum research or technology seems to be largely lacking. Notably, the UK Quantum Technology Hub in Sensors and Metrology issued a call to work with U.S.

companies, but it is targeted at potential American end users, rather than at collaborative up-front research and development.

On the U.S. side, the Department of Energy (DoE), which has organized an interagency working group on quantum information technology, is an exception. Perhaps its tradition of cooperation on nuclear research has spilled over into the quantum computing arena. All the same, one of the leading labs in quantum communications research, DoE's Los Alamos National Labs, has no funds to work outside the United States.

Additionally, the oversight of information sharing with foreign entities, even allies such as Britain and Australia, constantly runs into difficulties with export controls of sensitive technology, making it difficult for researchers to decide what to share and what not to share. Most, it seems, choose to avoid future trouble by not sharing at all.

In still other instances, a U.S. company will partner with a foreign university engaged in quantum research, as when IBM recently announced that it was making Oxford University a member of its newly formed IBM Q Network, a collaboration of Fortune 500 companies, academic institutions, and national research labs aimed at exploring practical applications for quantum computing systems.

Yet in none of these examples do we see either the U.S. government or its allies directing or supervising the resultant multinational effort. This can lead to unfortunate results, as when the Russian Quantum Center was able to get Mikhail Lukin, a Harvard professor and director of Harvard's Quantum Optics Center, to join its international advisory board. Another respected figure in the field, Eugene Polzik of the Quantum Optics Lab at the Niels Bohr Institute in Copenhagen, is a member of the RQC's executive committee and the principal contact for RQC applicants. He said, "We are very enthusiastic about trying to make Russia a part of the international scientific community."[19]

Likewise, in November 2017, a joint team consisting of researchers at the University of Sydney and Microsoft, in collaboration with Stanford University, made a groundbreaking discovery that is key to scaling up quantum computers. The team miniaturized a device called a microwave circulator and its findings were published in *Nature Communications*. The team is led by Professor David Reilly, who is director of the University of Sydney's Microsoft Quantum Laboratory, based out of the Sydney Nanoscience Hub, and funded by organizations which include Microsoft Research, the U.S. Department of Energy, darpa, and the Australian Research Council Centre of Excellence Scheme. One of the coauthors of the paper, however, Dr. Xufeng Kou, also happens to be a tenure-track professor in China. Though he began working on the project while a student at UCLA, he was working at ShanghaiTech when the project was completed.[20]

Additionally, Australia's University of Technology in Sydney (whose participating organizations include Lockheed Martin, Microsoft, Dartmouth College, UCLA Berkley) set up the Centre for Quantum Software and Information in December 2016, which is focused on developing crucial software and algorithmic components for the fields of quantum cryptography and quantum information. Yet the Centre's Research Director is Mingsheng Ying, who not only studied at Fuzhou Teachers College in Jiangxi, China, but is also currently professor at the State Key

Laboratory of Intelligent Technology and Systems in the Department of Computer Science and Technology at Tsinghua University, Beijing.

Sharing of basic research information on quantum with Chinese scientists may not always be a national security risk, but China's willingness to use foreign research on advanced technologies (acquired either legally or illegally) to advance its own national security strategy, including its military posture, is well known. In fact, alarm bells are starting to go off in Australia, as their Department of Defence has recently been accused of ignoring universities that shared military technology with China illegally. An article from the Australian Broadcasting Corporation authored by Tom Iggulden noted that "Australian universities conduct world-leading research in areas such as artificial intelligence [and] supercomputing," and that the Defence Department has traditionally relied on self-assessment from universities to monitor their own information-sharing practices.

Recently, the U.S. House Committee on Science, Space, and Technology and its Subcommittees on Research and Technology and Energy voiced concerns that the quantum sector in the United States was falling behind countries that are ramping up research and development in this area. China is outspending the federal government thirtyfold in quantum technology. When viewed in combination with China's heavy investment in artificial intelligence and other key fields, this disparity is even more alarming. In artificial intelligence, for example, Google is actively cooperating with China. Eric Schmidt, former chairman of Alphabet (Google's parent), has warned that China will overtake the United States in this area by 2025.[21] And with its forthcoming satellite-navigation system modeled on our own GPS, the government in Beijing is sending a clear signal that it understands the stakes involved in dominating the world's information technology future, while others may be taking that future for granted.

Nonetheless, simply spending more money is *not* the answer. If the United States and its quantum-capable allies don't mobilize and coordinate their effort to secure leadership in this sector, someone else will. That someone else will almost certainly be China.

China has already taken the lead in quantum communications, with its quantum satellite and its two-thousand-kilometer long quantum communication pathway from Beijing to Shanghai. Given its heavy investment in future quantum technology, including quantum computers, and its commitment to gaining quantum supremacy as a national strategy priority, it seems inevitable that China will move into the lead as this technology becomes more widespread. This is true not only in the realm of weaponization of quantum as discussed above, but also in establishing global standards and practices for future quantum networks and communications. The gains in terms of economic and geopolitical leverage for China in achieving this leadership position could be incalculable—just as the losses in terms of economic growth and opportunity for the United States and the West, not to mention losses in the realm of national security, could be equally egregious.

It is time for our leaders, and the public, to understand the stakes of quantum computing. What is unfolding every day at corporate, university, and government laboratories around the world is more than a scientific advance of enormous proportions and consequences. It will also determine the geopolitics of the future.

In the end, the Manhattan Project didn't just win a world war; it secured the future for American leadership and the security of the free world in the atomic age. In the quantum age, the stakes will be at least as vital—and the consequences of losing the quantum race, nearly as catastrophic.

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America Needs an Industrial Policy

ARTHUR HERMAN JANUARY 10, 2019

The phrase "industrial policy" conjures up images of Europe's dirigiste failures, corruption in African and Latin American economies, and the disastrous 1984 presidential campaign of Walter Mondale. In board rooms and think tanks and even university class rooms across the country, the term generates an instinctive revulsion hardwired by decades of listening to laissez-faire and supply-side economic thinkers, from Milton Friedman and Martin Feldstein to George Gilder and Arthur Laffer. The phrase recalls humiliating policy failures from Solyndra and Evergreen Solar at one end to Soviet five-year plans at the other, more sinister end—not to mention the Great Leap Forward.

All this explains why industrial policy has been, by and large, a taboo subject among American politicians as well as economists. That is, until now. There's been a recent shift in mood and attitude about the proper role of government in shaping America's economic destiny. There's a growing fear that limiting government's role to merely umpiring market mechanisms is hurting both our economic future and our national security. There is a growing belief that policy options beyond market fundamentalism must exist, and that a failure to pursue these alternatives might put us on a different road to serfdom.

Those options would be especially attractive if they managed to avoid a radical uprooting of America's basic economic landscape, or supplanting the normal incentives that foster economic growth and innovation. If, instead, government's attention were simply focused on bolstering the handful of key industries that will determine the global balance of power in the twenty-first century—and where in many cases America already has a lead, though one that will quickly diminish if action isn't taken soon—the notion of industrial policy might gain some new political as well as intellectual traction.

What is industrial policy? Usually it's a term referring to a program of economic reforms that give the government extraordinary authority, as well as fiscal and regulatory powers, to change a country's industrial structure or —less ambitiously—promote a targeted sector of the economy. According to economists Howard Pack and Kamal Saggi, it refers to "any type of selective intervention or government policy that attempts to alter the structure of production toward sectors that are expected to offer better prospects for economic growth than would occur in the absence of such intervention."[1] The goal is to correct what are identified as market failures in sectors where the normal workings of supply and demand, and market competition, aren't able to achieve certain economic or other national goals.

In general, industrial policies in the past have had three characteristics that set them apart from other forms of macroeconomic policies. First, they are usually focused on the manufacturing sector and infrastructure, as well as "infant industries" which are seen as crucial for future economic growth and competitiveness, but which are too small or too nascent to attract the kind of capital investment that would normally foster their growth.

Second, industrial policy often implies direct interventions in the nation's trade policy, by imposing tariffs, quotas, and other restrictions on imports from foreign competitors; controlling the flow of certain materials and goods to purchasers abroad; and sometimes even providing direct subsidies or price incentives for exports. This latter practice is usually denounced by international competitors as "dumping" (a charge brought against Japan, one of the main practitioners of industrial policy, during the 1970s and '80s), just as tariffs are denounced as a form of "protectionism."

Third, reliance on industrial policy is usually more typical of "mixed economies," where the active role of government in economic and business affairs is normal and accepted. Examples include the newly industrialized countries (or NICs) of Asia, which followed the example of postwar Japan, with government directly managing economic recovery and growth; countries in Latin America and Europe; and African countries eager to find solutions to underdevelopment through government action—often to their disappointment (for reasons we will examine later).[2]

In the United States, however, the use of industrial policy measures has been viewed with suspicion throughout most of the twentieth century—conveniently ignoring the fact (which industrial policy advocates never tire of pointing out) that protectionist tariffs helped to spur America's industrial growth in the nineteenth and early twentieth centuries, until the United States finally became the dominant industrial power in the world.

On the other hand, industrial policy's spotty record elsewhere has made suspicion of its methods and goals seem justified. For every Japan or Taiwan that has made a success of industrial policy, there are Argentinas, Brazils, Ghanas, and Ugandas where industrial policy has proved a failure.

To critics, then, the phrase smacks of government failure, rather than market failure, and socialism. To advocates, however, industrial policies are a useful and necessary way to deal with a declining economic situation, especially a dwindling or uncompetitive domestic manufacturing base, which orthodox free market, laissez-faire policies can't or won't address.

As Dov Zigler remarked in a recent article in *American Affairs*:

> The market system excels at incentivizing economic efficiency, finding and commercializing uses for advanced technologies, and allocating resources to suit preferences. Increasing domestic market freedom might also advance the nonutilitarian goal of securing the rights of citizens. But a more perfect market system in itself is not a substitute for an awareness of national priorities or the strategic pursuit of national goals.[3]

Proponents of national industrial policies can be highly critical of unfettered markets and the necessarily limited effect of government efforts to stimulate economic growth solely through fiscal policies like tax cuts, or monetary policies like adjusting interest rates. But unlike doctrinaire socialists, the goal of industrial policy isn't to curb private enterprise but to spur it in a new direction—an outcome that's vital to national interests but which markets alone are unable to achieve.

Over the past four decades, America has operated under two assumptions that have governed the relationship between government and the private sector: (1) Left to itself, the private sector will always figure out how to solve our most pressing economic challenges by investing where capital is needed most. And (2) the sector of our economy that has been the most innovative and successful in recent decades, the sector symbolized by Silicon Valley, will always rise to the challenge of sustaining economic growth as well as protecting our national interests.

More recently, however, politicians, academics, and the public are realizing that these assumptions aren't working—especially in the face of the growing threat from China. There's an increasing awareness that the United States needs to readjust its economic strategy in a fundamental way.

Responding to the Rise of China

The progressive rise of China from economic competitor to geopolitical challenger to strategic threat has dramatically shifted attention away from the drawbacks—and toward the virtues—of industrial policy. While other issues like the loss of manufacturing jobs and economic stagnation in America's heartland have stimulated interest in a more active role for government in the economy—one could argue those concerns elected Donald Trump president in 2016—the reality of China's march toward global hegemony at America's expense has generated a sense of urgency to resolving old debates on industrial policy. That includes the belated realization that the first two problems, the loss of jobs and decline of manufacturing industries, can be directly traced back to China's rise as an economic rival.

It's also becoming clear to American political and corporate elites that the expectations they once entertained about U.S. and Chinese economic integration were wrong. Increasing interdependence has not accrued equally to the benefit of both economies. And China's prosperity has not brought political as well as economic reform—i.e., ending the Communist Party of China's (CPC) monopoly on political power and curtailing the influence of state-owned enterprises.

In fact, China and the CPC have pursued very different plans. Far from embracing the laissez-faire approach that is prevalent in the West, the Chinese have set in motion a far-reaching industrial policy of their own, which has culminated in President Xi Jinping's visionary plan dubbed Made in China 2025 (MIC 2025).

As Bonnie Glaser, director of the China Power Project at the Center for Strategic and International Studies, testified to Congress earlier this year: "Although the goal of MIC 2025 is to upgrade industry writ large, the plan targets ten strategic industries in which China intends to foster the development of not only national champions but global champions."[4] The ten priority sectors are

> 1) advanced information technology; 2) automated machine tools and robotics; 3) aircraft and aeronautical equipment; 4) maritime vessels and marine engineering equipment; 5) advanced rail equipment; 6) new energy vehicles; 7) electrical generation and transmission equipment; 8) agricultural machinery and equipment; 9) new materials; and 10) pharmaceuticals and advanced medical devices.[5]

Perhaps not surprisingly, these are all areas in which the United States has been the clear leader for decades, but in which China now intends to overtake us. MIC 2025 is part of Chinese president Xi Jinping's larger strategy for restoring China to what he believes is the country's rightful place as a great power by 2049, in time for the centennial of the PRC's founding. "At the 19th Party Congress in October 2017, Xi even laid out a multi-stage plan with specific goals for 2020, 2035, and 2050," Glaser noted. "By 2035, he said China would be a top ranked innovative nation and by the middle of the century would be transformed into a leading global power."[6]

Americans have finally awakened to what some of us have been arguing for more than a decade: China is not merely an economic competitor, as Japan was in the 1970s and '80s, but a major threat to U.S. global leadership. China's long-standing pattern of serial cyber theft, IP theft, and predatory trade practices; its militarizing of the South China Sea; its "anti-access, area denial" maritime strategy aimed at the U.S. Navy; and its massive One Belt One Road initiative are all linked together in China's national strategy, of which its comprehensive industrial policy is a natural—and increasingly effective—part.

Unfortunately, the U.S. response so far has been fragmentary and uncoordinated. It has featured on-again, off-again tariff wars and dithering about what to do in response to Huawei's dominance of the world's advanced wireless 5G technology. Meanwhile, we have failed to shore up our own decaying defense industrial base. American policy regarding the growing Chinese threat has been less than effectual, even as there is increasing awareness that we are seriously offtrack.

A clarion call has gone out for a change of direction, including a new national economic strategy—one that might seriously be described as an industrial policy. One of the most forceful advocates of this message is Senator Marco Rubio. Rubio's critique is not just aimed at the failure to deal with China, but the deeper misalignment of U.S. corporate incentives and the role of government, or lack of it, in shaping capital investment priorities. As he wrote in the *Atlantic*,

> For too long, government and business leaders alike have stood back and endorsed supposedly unstoppable global forces that have made life harder for working Americans. But inaction will not restore the dignity of work or usher in a new American century that values dignified work and wages like the last one. It doesn't have to work this way. Supply-side theory—that increased investment benefits workers in the long run—only works if investment actually increases.[7]

The *Atlantic* article echoed key passages of a report by the Senate Small Business and Entrepreneurship Committee (which Rubio chairs) from this February, recommending the creation of a national innovation board:

> Properly aligned with national priorities, markets in trade and finance can drive tremendous economic progress. Left to their own devices, expanding for expansion's sake, however, they provide market actors the framework to endlessly seek out new efficiencies, regardless of whether such efficiencies are in the national interest, or in some cases even in the interests of the firm's own product value.[8]

In both the article and the report, Rubio put his finger on one of the key areas of American vulnerability in this regard: the high-tech sector. The Made in China 2025 plan makes clear that China views winning the struggle for high-tech supremacy as a necessary part of its grand strategy to replace the United States as the world's leading superpower. As Trump economic adviser Peter Navarro remarked on *Meet the Press* in April, "What's at stake here . . . is the industries of the future . . . artificial intelligence, robotics, quantum computing. And what's at stake is not just our economic prosperity. If I may, it's also our national security. Because many of these industries of the future have profound military implications."[9]

Is the U.S. economy ready to compete in this struggle—or even see high tech as an arena of geopolitical conflict? Sadly, many indications suggest that we are not.

On the contrary, some of America's largest firms have become allies of China's push to achieve high-tech, and therefore geopolitical, supremacy. Companies such as Google, Microsoft, and Apple have contributed to the building of China's closed internet, or the Great Firewall. Meanwhile, instead of burnishing its image as the engine of innovation for the American economy, Silicon Valley has become a symbol of entrenched interests known to critics as Big Tech. One of the largest of all, Google, has left itself open to charges of being unpatriotic, even treasonous, by supporting China while it refuses to support the U.S. Department of Defense with certain key programs.

Whenever commercial convenience collides with larger national interests, there has been a fairly anemic response to the challenge. Whether we call this a market failure or not, there has certainly been a failure to decide where American economic resources need to be directed, and to act accordingly.

So if the old paradigm for aligning our high-tech economy with the national interest is broken, what's the alternative? Fortunately, another paradigm exists, and not a theoretical one. It's the one I described in my book, *Freedom's Forge*, on America's transformation into the Arsenal of Democracy during World War II. The book details how the U.S. government harnessed the power and innovation of America's private industrial sector to win the greatest war in history. The new threat from China is more complicated, but the lessons are still relevant. The current geo-economic competition is, in the words of Robert Blackwill and Jennifer Harris, "war by other means."[10] If Beijing achieves its goals, America will be displaced as a superpower.

Perhaps it's no coincidence, then, that the book is finding a new audience in Washington and across the political spectrum. Former secretary of defense Patrick Shanahan has described it as his favorite book; President Trump's special economic advisor Peter Navarro also speaks highly of it.[11] According to the *New Stateman*, *Freedom's Forge* has even been heavily touted by Representative Alexandria Ocasio-Cortez's staff as a model for their Green New Deal.[12] Washington governor Jay Inslee has praised it for the same reason.[13]

Of course, one does not have to support the Green New Deal to recognize the appeal of the green Left's campaign to use an all-of-government approach to restructure our economy and to refocus resources where they will have the most impact. These proposals speak to a deep need among

Americans for an approach to the economy very different from the one that has prevailed since Reagan's day.

The sobering reality is that the old paradigm is broken. The future depends on whether America gets its economic house in order, and sets its strategic sights higher, especially in high-tech sectors and our defense industrial base.

Fortunately, the message of *Freedom's Forge* is not that we need to abandon the market economy. Instead, this successful paradigm *maximizes the advantages of market discipline and private sector innovation and minimizes the disadvantages of government direction and intervention*, while also using the potentially disruptive impact of new technologies as strategic leverage. In short, it aims to secure the virtues of industrial policy while minimizing its shortcomings.

Industrial Policy in American History

The idea that the state should play a major role in guiding a country's economic future is of course not new. Governments performed that function in mercantilist Europe in the sixteenth and seventeenth centuries by promoting investment in export industries and putting up barriers to imports, while also controlling the flow of skilled artisans and raw materials. The assumptions underlying mercantilist policy received a devastating riposte from Adam Smith in his *Wealth of Nations*. The policy that "nations have been taught that their interest consisted in beggaring all their neighbors," was wrong. Rather, Smith argued, the promotion of commercial wealth through foreign trade and the expansion of domestic production of consumable goods were the true sources of national strength. *Wealth of*

Nations became the holy writ of free market capitalism, and the source book for policies based on limiting, not expanding, government control over markets and the larger economy.

But that did not deter the first secretary of the treasury in the new republic of the United States, Alexander Hamilton. Hamilton knew Smith's work well; he by and large agreed with Smith that "fleets and armies are maintained, not with silver and gold, but with consumable goods." But he was also convinced that Smith's hands-off role for government in helping to generate that wealth—though it might be suitable for a globally dominant economy like Britain's—would not work not for a new county like the United States, with its incipient manufacturing base and relatively weak maritime posture.[14]

Instead, a new approach was needed—one which, ironically, bears considerable resemblance to the approach China has taken in recent years. In his groundbreaking *Report on Manufactures* published in 1791, Hamilton urged Congress to promote what we would call America's industrial base, so that the United States could be "independent on foreign nations for military and other essential supplies." In addition to protecting national independence, support for manufacturing would level the playing field in the global markets of the day. Since European governments regularly subsidized their manufacturers, America would only be able to compete by following the European lead.[15]

Hamilton envisioned a future in which the new republic would be in competition with Britain and other European powers, which would necessarily lead to conflict, including armed conflict. This is why Hamilton also wanted to make sure America had a strong navy.[16] But the principal tool Hamilton believed Washington should use to help manufacturers was tariffs. In fact, the tariffs he set forth in his *Report* were the only recommendations Congress decided to enact.

By and large, tariffs became the principal tool by which the U.S. government protected and fostered its industrial base for the next century. It was under Woodrow Wilson that the paradigm shifted to emphasizing free trade and free markets—not surprising since by the early twentieth century the United States had become the dominant industrial power.[17] Free trade subsequently became more or less an American economic orthodoxy, one that the State Department preached around the world during the FDR administration.

All the same, every president since Calvin Coolidge has also looked for ways to get industry, labor, and government all moving in the same direction, with government policies leading the way. The most extensive, and most notorious, attempt was the National Recovery Administration (NRA) under FDR, which aimed to force industry, labor, and government to work together to set prices and set up "fair practice" codes. Killed off by the Supreme Court, some elements of the NRA, such as price controls, wound up being adopted during World War II.[18] But after the war, fiscal and monetary policy meas-ures were seen as more than adequate to foster economic progress; in fact, after the advent of supply-side economic theory, many believed tax cuts alone would do the trick.

Interest in a more active government role made its comeback in the 1980s. American politicians and some economists gazed with admiration and envy at the success of countries like Japan and Korea, where economic growth followed important structural reforms that expanded the central government's role in supporting and even subsidizing certain industrial sectors—in other words, industrial policy.

The article that summed up the new trend was written by Robert Reich in the *Harvard Business Review* in 1982, entitled "Why America Needs an Industrial Policy." "Today competitive leadership requires the ability to adapt to a changing world economy," Reich wrote, "and government can help reduce the cost of adaptation in two ways: (1) by smoothing the movement of capital and labor out of declining industries and (2) by ensuring the availability of both capital and labor to promising sectors of the economy—that is, by accelerating the adjustments that capital and labor markets would otherwise achieve more slowly on their own." He continued:

> Industrial policy focuses on the most productive pattern of investment, and thus it favors business segments that promise to be strong international competitors while helping to develop the industrial infrastructure (highways, ports, sewers) and skilled work force needed to support those segments. . . . Proponents of industrial policy argue that an American company cannot achieve international leadership without government support. They do not mean, however, that government should second-guess the strategic decisions of business by picking "winners" and "losers," or that business should depend on government largesse. They mean simply that the strength of the United States economy will increasingly rest on public policies that complement the strategies of individual companies. Industrial policy is emphatically *not* national

> planning but rather a process for making the economy more adaptable and dynamic.[19]

Reich even insisted, "As a theory, industrial policy is closer to the strategic planning models used by many companies than to traditional macro- or microeconomics." With the looming presence of Japanese economic success, and reaction against Reagan's adoption of supply-side economics, the New Industrial Policy became a major issue in the 1984 presidential campaign. Democratic presidential contenders Gary Hart and Ernest Hollings, and nominee Walter Mondale, were NIP enthusiasts; President Reagan was a steadfast NIP opponent.

When Reagan won in a forty-nine-state landslide, the appeal of NIP faded fast. The positive impact of the Reagan tax cuts, as the U.S. economy began growing at an average 3.5 percent clip, also put paid to claims that America's best economic days were behind it—though Reagan's Defense Department, believing the economy was growing less competitive, actually prepared plans for a technology-based industrial policy, never to be implemented.[20]

Following the financial crisis of 2008, there was a flurry of new interest in industrial policy, but critics insisted that it wouldn't work, and that it didn't even work for the countries usually associated with its success, namely Japan and the Little Dragons. Michael Schuman, in a 2010 *Time* magazine essay "Does America Need an Industrial Policy," explained how the rise of Japan had triggered the initial interest in industrial policy. "In the 1960s and 1970s, the bureaucrats in Tokyo were the patron saints of modern industrial policy," he wrote, "who employed special loans, trade protection, and other methods of support to nurture new industries that could compete in international markets. . . . That's when the calls began in the U.S. urging Washington to adopt similar policies, or lose out to Japan and its supposed superior economic model."

Schuman found, however, in researching his book *The Miracle: The Epic Story of Asia's Quest for Wealth*, that industrial policy probably aided a small number of new industries in Japan, South Korea, and Taiwan. "The reason companies in 'targeted' industries, like shipbuilding in Korea or electronics in Taiwan, have proven so successful is that the private entrepreneurs who launched them used the state support they received wisely and made products that people wanted to buy on international markets." In fact, some of the most successful Japanese industries, such as consumer electronics and motorcycles, never received significant aid from the Japanese government—nor did successful individual companies like Sony or Honda.[21]

In 2016, the left-of-center Brookings Institution published a blog post by Georgetown professor Shanta Devarajan (former economist at the World Bank) entitled "Three Reasons Why Industrial Policy Fails."[22] The first reason Devarajan listed was "existing distortions," meaning failures that were blamed on the inadequacy of free markets were very often due to other more pervasive distortions in the economy, "such as labor market regulations, energy subsidies, and the like. In this setting, correcting the market failure associated with industrial policy may not promote industrialization; in fact, it may make matters worse. . . . [G]overnments would do better to identify the biggest distortions in the economy (such as energy subsidies) and work on correcting them."

The second problem was what Devarajan called "political capture," where "industrial policies are too easily captured by politically powerful groups who then manipulate it for their own purposes rather than for structural transformation." This can also happen in reverse with what's called "regulatory capture," in which the dominant private sector companies and players manipulate the government's interventionist role for their own purposes.

The third problem, Devarajan explained, was that "Industrial policy has typically targeted sectors. The discussion of 'picking winners,' based on some variant of comparative advantage, is usually about which sectors should receive preferential treatment. But sectors don't trade; firms do." Any economic sector is made up of a wide range of separate companies and entities, some large and some small; some badly managed and some well managed; some enjoying more advantages, for example superior intellectual property or lower labor costs, than others. "These observations have led to research on the characteristics of successful firms (such as the quality of management) and the possibility that industrial policy would be more effective if it targeted these characteristics rather than all firms in a sector"—yet this is traditionally what an industrial policy does not do.[23]

By the end of 2016, then, the case against industrial policy seemed largely closed. Yet the threat from China was looming larger and larger, and the U.S. economy remained sluggish and dependent on low interest rates. The 2017 tax cuts did not produce nearly the effect that Reagan's had. Meanwhile, the contradictions of America's approach toward industrial policy were growing more apparent.

In fact, a new book by New York University economist Thomas Philippon, *The Great Reversal: How America Gave Up on Free Markets*, strongly argues that we already have an industrial policy. It is one decided by the largest American businesses who successfully lobby Washington to protect their interests from competition or, in many cases, even innovation—a classic case of regulatory capture. Philippon's conclusion strongly echoes Rubio's: in today's normal business climate, "industry leaders' shares of investment and capital have decreased while their profit margins have increased. This is the opposite of what a hypothesis of superstar firms would predict," including in the high-tech industry.[24] This de facto industrial policy also does nothing to protect American interests vis-à-vis China.

So, whether we call it industrial policy or something else, we urgently need a new paradigm. Urgently, not just because of the immediate China challenge, but because the development of advanced technologies can rapidly transform economies of scale and determine the course of future innovation, without which the U.S. economy is doomed to stagnate—and with it, American power.

Ultimately, we can say that the future of freedom itself may be at stake—not just economic freedom but its political and moral versions. We are rapidly approaching an existential moment eerily similar to the technological competition that occurred in the early stages of the Cold War. Fortunately, our own history can point us to the right model.

Lessons from the Arsenal of Democracy

America's mobilization for World War II is one of the examples of an industrial policy that, nearly every expert agrees, worked. That is one reason why it is invoked so often, along with the race to the moon, even though building the Arsenal of Democracy was far more comprehensive in its reach and impact (for example, the race to the moon never involved sequestering strategic materials or suspending antitrust laws).

It's worth recalling the impressive numbers that the Arsenal of Democracy ran up. From the onset of the mobilization program in July 1940 through August 1945, the United States produced $183 billion worth of war materiel. That included 141 aircraft carriers, 807 other naval surface vessels, 203 submarines, 342,000 aircraft, 88,000 tanks and self-propelled guns, 257,000 artillery pieces, 2.4 million trucks, 2.6 million machine guns, and 41 billion rounds of ammunition—more than two-thirds of all the war materiel used by the Allies in World War II.[25]

Even more impressive was the speed with which this massive government intervention—into nearly aspect of the U.S. economy for more than five years—was dismantled to allow the return to normal civilian life. Indeed, as I pointed out in a 2014 article, the demobilization of America's military-industrial complex provided an efficient glide path to unprecedented growth and affluence for Americans in the 1950s and '60s.[26] One could argue that the American economy returned even stronger than ever, thanks to the experience of being organized for war production. It certainly returned with new innovative tools, from synthetic rubber and jet propulsion to nuclear power. Finally, the Arsenal of Democracy's original imperative—to arm America from an almost standing start—carried its legacy over into the Cold

War, with America commanding an arsenal for the free world unprecedented in scale and depth.

Of course, no one is seriously proposing an industrial policy as sweeping as the mobilization for World War II. But uncovering its lessons will be key to devising an effective industrial policy which targets the key sectors of the U.S. economy that will be essential for preserving our national and economic security, especially in our high-tech industries.

From that perspective, I would identify six important principles crucial to the development of the Arsenal of Democracy that should be hallmarks for any effective industrial policy today.

(1) Clearly define the challenge. Contrary to myth, the goal of American mobilization was not to arm the U.S. military—not at first. In the summer of 1940, when the Roosevelt administration began to gear up our military industrial base, the goal was rather to keep Great Britain alive and fighting. As I detail in *Freedom's Forge*, the war production ramp-up began a full year and a half before December 1941. If the United States had waited longer, Nazi Germany might have consolidated control not only in Europe but in the Mediterranean and Middle East. The most urgent need was first to arm allies against the Axis, which eventually generated the industrial momentum to arm the United States as well, in order to confront the threat directly.[27]

The key lesson is that an industrial policy aimed to deal with a specific threat, in this case competition from China, has a much better chance of succeeding and coordinating resources than one aimed at more vague targets such as "creating jobs" or "making America more competitive."

(2) Find the right talent to plan an overall strategy. From the start, FDR understood that he needed key industry leaders, for example General Motors CEO William Knudsen, to take the lead in devising a strategy and mobilizing resources rather than rely on government bureaucrats, including the experts of his so-called Brain Trust. Knudsen, in turn, asked for the help of the biggest and most productive companies in America to organize the initial effort. Their expertise and experience became the basis upon which an overall plan could take shape.

The actual strategy itself can consist of a number of different elements associated with industrial policy. They could include directed tax incentives to spur capital investment in key sectors and discourage investment in others; formation of joint industry-government boards to oversee the expansion of production (as happened during World War II); actual government investment in research and development, and in physical plants and facilities (similar to how the Defense Plant Corporation financed the creation and expansion of wartime production sites); targeted tariffs or restrictions against foreign competitors; pooling materials and resources, including intellectual property, essential for fostering sector growth; or organizing and investing seed money for fostering incubators and start-ups in critical sectors. In an important sense, what tactics are used are less important than having an integrated strategy in the first place.

(3) Spread the effort as widely as possible, even to companies that have never participated in a sector before. Knudsen relied on the biggest companies (Ford, GM, General Electric, U.S. Steel, AT&T) to lead the way, but not to do the job alone. He encouraged new players to join the effort. This was how companies like Henry Kaiser Co. Ltd., which had built dams but never

maritime vessels, became involved in producing Liberty ships and ultimately built the largest steel plant on the West Coast, and one of the most advanced in the world. It was how Ford became involved in producing an entire aircraft, the B-24; General Electric began designing and producing bazookas; and hundreds of subcontractors were involved in making a variety of war materiel from landing craft and machine guns to search lights and radar sets. This not only sped up overall production by having as many companies involved as possible; it also allowed cross-cutting innovation to take place, as outside companies brought new ideas to old systems and processes.

Today, this would mean, for example, not limiting the effort to build an effective 5G network to telecom companies and their usual suppliers, but including other companies that excel in productivity and technical skills. This also means thinking "outside the sector" in ways that avoid one of the chief problems with industrial policy: simply making the biggest bigger, with a government-sanctioned de facto monopoly. The goal isn't to make the big companies bigger and more powerful; it's to use their knowledge and expertise to guide the rest of the sector forward. It involves diffusing the secrets of production from the top down, while absorbing the instinct for innovation from the bottom up. None of this will work, however, without the proper role of government.

(4) Keep all noses pointed in the same direction. This was Knudsen's homey description of the essential role of the "boss" on an industrial job, or an executive in a corporation: making sure that the diverse activities on an assembly line or in a corporation are all aimed toward the same goal. That also defines the essential role of government, not only in the making of the

Arsenal of Democracy but in any effective industrial policy, which is oversight, not oversteering: not picking winners or losers but rewarding success while punishing failure. During World War II, Washington bureaucracies learned to limit themselves to making sure that production targets were met and resources kept flowing, with price controls and allocations on strategic materials, for example, without directly interfering in the production process itself or micromanaging costs.

Instead, government was able to exercise oversight through an effective combination of both carrots (introducing for the first time cost-plus contracts for the defense industry plus the lifting of anti-trust statutes) and sticks, the most important of which was the Senate Committee to Investigate the National Defense Program, led by Missouri senator Harry Truman, otherwise known as the Truman Committee. Established in 1941, "the committee held hundreds of hearings, traveled thousands of miles to conduct field inspections, and saved millions of dollars in cost overruns."[28] A visit by Truman Committee members became every contractor's worst nightmare; for those who engaged in fraud or abuse, it could mean a jail sentence.[29]

In general, the private sector's freedom of action in advancing war mobilization was balanced by strict accountability to the public sector—and vice versa. One of the principal dangers in implementing an industrial policy, regulatory capture, was studiously avoided. While contractors' responsibilities were carefully defined and their powers limited, so were those of the government.

(5) Devise an exit strategy. The power of the war production machine that Knudsen and American business had built to win World War II was such that by the spring of 1944—more than a year before the end of the war in Europe—the chief problem facing the War Mobilization Board was how to *de*mobilize and return to peacetime production. In fact, by then "reconversion" had become the key catchphrase across wartime industries. Trade publications like *American Machinist* ran entire issues on how companies could handle Termination Day—how to disengage from their contracts with the War or Navy Departments and begin reconverting to their normal business lines. In June 1944, T-Day had become as important as D-Day to the future of the U.S. economy. Fourteen months later, when the war was over in both Europe and Asia, the transition to civilian commerce was extraordinarily smooth, even though many had predicted economic chaos. As I pointed out in *Freedom's Forge*,

> There was a brief hiccup in the last half of 1945 and early 1946, as national output dropped and unemployment rose to 3.9 percent. As price controls were lifted, inflation rose by 20 percent. Then things smoothed out. Private capital investment, which had gone flat and even turned down during the war, tripled from $10.6 billion in 1945 to $30.6 billion in 1946 and never looked back. . . . As one economist [Robert Higgs] has put it, "As the war ended, real prosperity returned almost overnight."[30]

An effective industrial policy must have the same clear lifecycle perspective: one with a starting line and almost a finish line, when either goals are met or when it's clear they won't be, and a new strategy, and policy, is needed.

(6) Find the right leadership. As Joseph Badaracco and David Yofee wrote in their November 1983 *Harvard Business Review* response to Robert Reich's original article, "Proponents of industrial policy know how hard it is to formulate a coherent economic strategy in a democracy."[31] Very true, and the Arsenal of Democracy was as much the accomplishment of two individuals—FDR and William Knudsen—who became the symbols as well as the primary motivators of the wartime production miracle. This was more than just a matter of public relations. It included Knudsen's powerful discovery that we could use America's most important *economic* advantage, its gift of civilian mass production, to offset our opponents' *military* advantage in equipment, experience, and training (as the opposing forces existed in 1940–41). This became the core of the entire Arsenal of Democracy strategy—an offset strategy avant la lettre—which Knudsen reiterated through every part of the war production effort, and which remained its guiding principle until the end of the war.

Likewise, it was President Kennedy's indomitable support for the space race, in the face of constant criticism and resistance within his own administration, that made reaching the moon possible. One could say the same for Ronald Reagan and the Strategic Defense Initiative (SDI).

Is there a need for similar personal leadership of an industrial policy aimed at leveraging our existing advantages in certain high-tech sectors, a person who would express and also embody its core strategy? Absolutely. But first it's necessary to have a look at what areas are in need of such leadership, and how we are destined to fare if we don't make a change of course, and soon.[32]

A Strategy for Reindustrialization

We can start where the Arsenal of Democracy left off, namely our own defense industrial base some seventy years on. Since World War II, Americans have been accustomed to the idea that our country's economic base is always ready to give our armed forces whatever they need, whenever they need it. Such was the legacy of the Arsenal of Democracy: whatever you thought about the military-industrial complex as it existed during the Cold War, it would always be there when needed. A report from the White House released in September 2018, however, revealed that our defense industrial base is in serious trouble, and has been for decades.

In 1961, the same year President Dwight Eisenhower was warning us about a "military-industrial complex," fifteen defense companies were in the top 100 of the Fortune 500. In 2015, only four aerospace and defense companies made the top 100 list, with much of their revenue coming from nonmilitary commercial activities. General Dynamics—number 15 in 1961—barely made the bottom of the list, at number 100.

Since 2000, the report said, the entire defense industrial base has shed more than 20,500 U.S.-based manufacturing firms (along with many more jobs). Much of the work they used to do has been sent overseas, including to China. The U.S. machine tools sector—essential for making anything that requires manufacturing—has been shrinking since at least the 1980s, while China has been surging ahead and is now the world's top producer.

By peering deep into the defense supply chain, the report found more than 280 major supply chain vulnerabilities and an alarming dependency on foreign nations, especially China. (These issues, not surprisingly, are even more pronounced in civilian sectors. At present, nearly 80 percent of the commercial drones used in the United States and Canada come from a single company, DJI, which is headquartered in Shenzhen, China.)

Today the Navy currently has only one firm manufacturing and refurbishing shafts used by both surface ships and submarines. Only one production line produces all the large-caliber gun barrels, howitzer barrels, and mortar tubes used by our armed forces.[33]

Fortunately, the Defense Department is trying to do something to address the gap. Efforts like its Manufacturing Technology program and the Industrial Base Assessment and Sustainment (IBAS) program are serious attempts to strengthen the industrial base, including training the next generation of machine tool operators and other manufacturing workforce personnel. IBAS, for example, under its director Adele Ratcliff, has launched an effort to gear up manufacturing competitions in twenty-one states (dubbed, significantly, the Freedom's Forge initiative) to encourage younger workers to learn the skills they'll need, and our defense industrial companies will need, to compete internationally in the next generation of assembly line technology, including the onset of 3-D printing as a "just in time" manufacturing application.

These are all skills, and an industrial base, that markets have passed by even though they are vital to our national defense. And though Congress recently gave the effort $20 to $30 million in additional annual funds under Title III of the Defense Production Act, that's a tiny amount compared to the effort made by China to strip industrial capacity away from the United States.[34] The Chinese have been out-planning, outspending, and out-resourcing the

United States—sometimes with the help of our own high-tech industry—to build the defense industrial base of the future.

For example, companies like IBM and Cray used to have a near-monopoly on supercomputers. Over the last decade, however, China has pushed the United States into second place among nations with the most supercomputers. According to TOP500, a project that has tracked supercomputer development for more than two decades, 206 of the world's fastest computers are now in China, compared with 124 in the United States. In fact, two of the four fastest machines on the list—the Sunway TaihuLight and the Tianhe-2A—are in China. America recently regained the top spot with the development of the Summit supercomputer at Oak Ridge National Laboratory, but this is a race in which the number of Chinese contestants is growing while the number of American ones is shrinking.[35]

Microchips are essential for all modern information technology. Again, the field used to be dominated by the United States, and today China's chip industry is still roughly one-ninth the size of ours. But Beijing is spending more than $30 billion to expand its domestic production as part of the Made in China 2025 initiative, even as America's microchip industry is steadily shrinking. China understands that developing the most advanced semiconductor technology will position its chip makers not only to dominate the future market but also to give it a leg up in a third area of the conflict: artificial intelligence (AI).

While Americans still worry about whether AI research will lead to a Terminator-style "rise of the machines" scenario, China has set a national goal of spending $150 billion to become the AI global leader by 2030. A recent Brookings Institution report notes that "China has become the world's leading AI-powered surveillance state," using voice, facial, and biometric data to keep track of its citizenry while also employing AI in preparation for cyberwar and kinetic war scenarios.[36] Unfortunately, in this endeavor the Chinese are getting help from an American company, Google, that has built a major AI center in China to be staffed by Chinese scientists—just as U.S. chipmakers have been helping China improve its competence and capacity in manufacturing advanced microchips.

In the case of 5G telecommunication networks, which will connect everything from cellphones to home thermostats to driverless cars, and move data roughly twenty times faster than today's 4G (including government data), the United States is just beginning to think about the standards needed for the high-cost infrastructure that 5G networks will involve. China, by contrast, is looking to dominate the 5G future by setting core technical standards that the rest of the world will have no choice but to accept. Today, Chinese IT giant Huawei (which the Trump administration has banned from selling 5G equipment in the United States) has more than ninety countries signed up to either use or test its 5G equipment, including many of our NATO allies.[37] If there isn't a 5G national strategy in place soon, America will be a telecom island unto itself—the equivalent of a 1990s household using Betamax video equipment while the rest of the neighborhood is using VHS.

The fifth and possibly most important area is the race to build the first large-scale quantum computer. By using subatomic particles and the principles of quantum physics to process data, quantum computers will easily outperform the fastest supercomputers in solving complex mathematical puzzles. They will also be able to unlock, in a matter of seconds, virtually every public encryption system the world uses today. In 2017, China started building a $10 billion facility in Anhui Province to develop quantum technology for both military and civilian uses. Chinese IT giants including Alibaba and Huawei are part of a national quantum-computer development effort, and Chinese applications for patents in quantum technology, particularly quantum-encryption technology, have increased dramatically this year.[38]

Meanwhile, Congress and the White House are just getting around to thinking about how to maintain our current lead in quantum-computing technology, with a quantum information science subcommittee taking shape at the Office of Science and Technology Policy. A bill dubbed the National Quantum Initiative Act, passed by Congress and signed by President Trump, allocates $1.25 billion over the next five years toward research in the quantum field.[39] But that's still only a fraction of what the Chinese government is already spending, to say nothing of what Alibaba and Huawei will do at Beijing's behest.

A Larger Strategic Vision

Today the United States is engaged in a struggle with China that dwarfs the stakes of the War on Terror. In terms of its potential to shape the future, it is a struggle approaching the significance of the Cold War.

The difference is that this one is being fought not with tanks and armies on the battlefield, nor with submarines and carriers at sea, nor even with ballistic missiles armed with nuclear warheads guided by satellites in space—

although these are still important, as is keeping them supplied and working. The bigger conflict is being waged right now on computer screens, in research labs, in corporate boardrooms, and on factory floors—the arena where competing economies of scale and national interests collide.

Increasing government budgets alone isn't the best answer; a national strategy is. Whether we call this an industrial policy, or a New Arsenal of Democracy, it will be vital not only for our economic security but for our national security as well. The same technologies that drive the global economic future will enable us to defend our country and allies. Failure to prepare for one will inevitably destroy the outlook for the other.

Of course, we should have a clear understanding of what can go wrong. We've seen the folly of governments trying to pick winners and losers in advanced technologies like clean renewables. We've also seen how entrenched bureaucracies, both government and corporate, can frustrate change. We are right to worry about industrial policy leading to de facto corporate welfare by which national policy regarding a specific industry is dominated by a handful of oligopolistic players for whom any real change of the status quo is a direct threat.

Of all these dangers, regulatory capture, through which public priorities and resources are held captive by private interests, probably looms largest in today's Washington. But this problem is manifestly present already, and the threat stems less from government intervention per se than from a lack of a strategic vision, one that aims to stretch capabilities but also accepts and embraces economic and national security realities.

Given these caveats, and given the global competition with China, what would be required to fit the *Freedom's Forge* model to today's circumstances, for an industrial policy dedicated to fostering critical sectors and technologies? Four primary issues stand out.

First, of course, there needs to be a clear, comprehensive strategy that leverages existing advantages into offset factors in global competition, much as Bill Knudsen and American business did with flexible mass production during World War II. The Obama Pentagon attempted to do something similar with their Third Offset Strategy launched in 2014–15. But there was never time to integrate the Pentagon's push for adopting the advanced warfighting technologies it needed (like AI, robotics, and unmanned systems) into a larger economic strategy—let alone to address the Pentagon's needs as a stakeholder in future technologies like 5G and quantum.[40] Such a comprehensive approach—developing a visionary program such as "Restoring American Leadership 2025" to offset "Made in China 2025"—is even more needed now.

Second, there has to be firm and persistent presidential leadership aimed at making private and public sectors work together rather than at cross purposes. President Trump or his successor needs to become the face, and driving force, of a high-tech industrial policy in the same way that FDR was for the Arsenal of Democracy, Kennedy for the race to the moon, and Reagan for SDI.

Third, there has to be close coordination with allies. During World War II, America had the industrial base to single-handedly arm ourselves and our allies. As we've seen, that self-sufficient base no longer exists. Even in advanced technologies, we live in an age of global supply chains with a much more level playing field in terms of the global distribution of technical expertise and research. We need to plan and work closely with allies like Britain, Canada, Japan, and South Korea in these critical areas, while also working to limit technology and knowledge transfers to our leading antagonists, especially China.

Fourth, there has to be a firm commitment to reforming the status quo rather than simply trying to patch it up and move on. "Resiliency" is no longer enough, whether we are talking about protecting the cybersphere from future quantum attack or securing our defense industrial base or deploying the vanguard technologies of the future. Economist Bruce Scott once observed that a coherent industrial policy is more of a political than an analytic challenge.[41] It's an issue too big to be left to economists, or even politicians. Unity of effort is key: establishing common ground between government and industry is where leadership and political will are the most important resources we have.

By following the *Freedom's Forge* paradigm, it's possible to renew the innovative strengths that built the Arsenal of Democracy, nurtured America's post-Sputnik scientific and engineering renaissance, enabled the moon landing, spurred the growth of nuclear power and the birth of the internet, and which can now revive our defense industrial base and secure our high-tech future. As Bill Knudsen observed, "We can do anything if we do it together." It became the watchword of World War II. It can exercise the same power in the twenty-first century.

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[1] Howard Pack and Kamal Saggi, "The Case for Industrial Policy: A Critical Survey" (working paper, Development Research Group, World Bank, February 2006).

[2] John Page, "Africa's Failure to Industrialize: Bad Luck or Bad Policy?," *Africa in Focus* (blog), Brookings Institution, November 20, 2014.

[3] Dov Zigler, "Radical Markets versus Sensible Politics," *American Affairs* 2, no. 3 (Fall 2018): 53–63.

[4] *Made in China 2025 and the Future of American Industry*, 116th Cong. (2019) (statement of Bonnie S. Glaser, Director, China Power Project, Center for Strategic and International Studies).

[5] Glaser.

[6] Glaser.

[7] Marco Rubio, "America Needs to Restore Dignity of Work," *Atlantic*, December 13, 2018.

[8] *Made in China 2025 and the Future of American Industry*, Project for Strong Labor Markets and National Development (February 2019).

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[10] Robert D. Blackwill and Jennifer M. Harris, *War by Other Means: Geoeconomics and Statecraft* (Cambridge: Belknap, 2016).

[11] Jeff Schogol, "This One Book Will Tell You Everything You Need to Know about Acting SecDef Patrick Shanahan," *Task and Purpose*, January 27, 2019.

[12] Paul Mason, "Alexandria Ocasio-Cortez's Green New Deal Is Radical but It Needs to Be Credible Too," *New Statesman*, February 13, 2019.

[13] Jay Inslee, "Why the Climate Campaign Is the Most Important Campaign," interview by Chris Hayes, *Why Is This Happening?*, NBC, July 25, 2019.

[14] *Makers of Modern Strategy from Machiavelli to the Nuclear Age*, ed. Peter Paret (Princeton: Princeton University Press, 1986).

[15] *Alexander Hamilton's Famous Report on Manufactures* (Boston: Home Market Club, 1892).

[16] Gerald Stourzh, *Alexander Hamilton and the Idea of Republican Government* (Stanford: Stanford University Press, 1970).

[17] Arthur Herman, *1917: Lenin, Wilson, and the Birth of the New World Order* (New York: Harper, 2017).

[18] Gary Dean Best, *Pride, Prejudice, and Politics: Roosevelt versus Recovery, 1933–1938* (New York: Praeger, 1991).

[19] Robert B. Reich, "Why the U.S. Needs an Industrial Policy," *Harvard Business Review* (January 1982).

[20] But even Reagan couldn't resist the appeal of a more active role for government to make America more competitive with its global rivals, particularly Japan. A classified U.S. Defense Intelligence Agency program established in 1983 and dubbed Project Socrates aimed at finding a strategy for coordinating resources to make the United States more competitive in world markets through advanced technologies, while remaining true to the spirit of free market capitalism (the program never caught on, and was axed by Reagan's successor George H. W. Bush). But the program's progenitor, Michael Sekora, did use the effort to raise awareness that America's declining competitiveness wasn't just because the Japanese weren't playing fair, but had deeper structural causes.

[21] Michael Schuman, "Does America Need an Industrial Policy," *Time* (September 17, 2010).

[22] Shanta Devarajan, "Three Reasons Why Industrial Policy Fails," *Future Development* (blog), Brookings Institution, January 14, 2016.

[23] Devarajan.

[24] Thomas Philippon, *The Great Reversal: How America Gave Up on Free Markets* (Cambridge: Belknap, 2019).

[25] Arthur Herman, *Freedom's Forge: How American Business Produced Victory in World War II* (New York: Random House, 2012), 335–36.

[26] Arthur Herman, "How America Got Rich," *Commentary* (September 2012).

[27] Hence the term Arsenal of Democracy which FDR coined in December 1940: "democracy" meant primarily Great Britain (and also China resisting Japan).

[28] United States Senate, "The Truman Committee" (overview).

[29] Herman, *Freedom's Forge*, 197–98, 205–8.

[30] Herman, *Freedom's Forge*, 339. See also Herman, "How America Got Rich."

[31] Joseph L. Badaracco Jr. and David B. Yoffie, "'Industrial Policy': It Can't Happen Here," *Harvard Business Review* (November 1983).

[32] I do not mention funding not because it isn't important, but because it is more important that the right strategy is arrived at. Sometimes that doesn't require government funding, let alone active support. The fracking revolution unleashed the animal spirits of the energy industry without federal largesse and even despite resistance by the Obama administration; indeed at a time when federal largesse was directed at clean renewables. The fracking revolution was instead driven by the desire to reduce U.S. dependence on foreign oil and push prices down.

[33] Arthur Herman, "Could We Launch Another D-Day Now?," Fox News, June 6, 2019. See also: Interagency Task Force in Fulfillment of Executive Order 13806, *Assessing and Strengthening the Manufacturing and Defense Industrial Base and Supply Chain Resiliency of the United States*, U.S. Department of Defense, September 2018.

[35] Herman, "The High-Tech War with China."

[37] Arthur Herman, "America Needs to Win the Battle for 5G Supremacy," *National Review*, September 24, 2019.

[38] Jeanne Whalen, "The Quantum Revolution Is Coming, and Chinese Scientists Are at the Forefront," *Washington Post*, August 18, 2019.

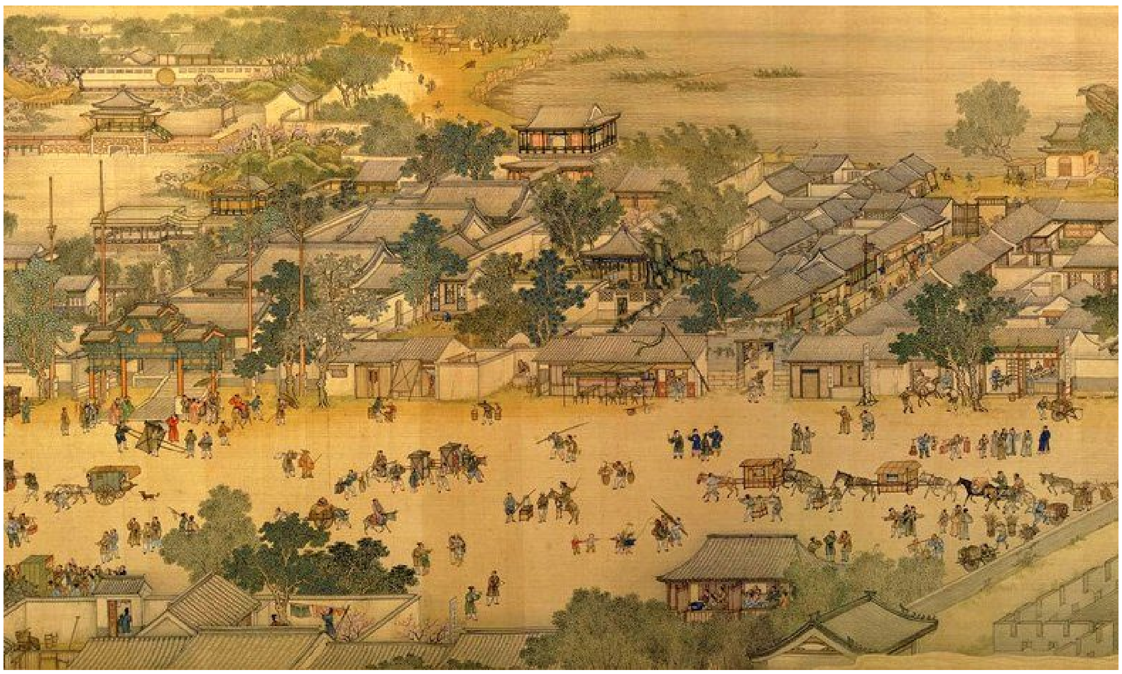
[39] National Quantum Initiative Act, H.R. 6227, 115th Cong. (2018).

[40] Arthur Herman, "The Pentagon's 'Smart' Revolution," *Commentary* (June 2016).

[41] Bruce R. Scott, "How Practical Is National Economic Planning?," *Harvard Business Review* 56, no. 2 (March/April 1978).

China's City Clusters: Pioneering Future Mega-Urban Governance

STEFAN RAU



The coordination of development within city clusters in the People's Republic of China (PRC) is a striking case for organizing institutions, planning, infrastructure, and economic development across many local administrative boundaries in very large urban regions, some as large as European countries. To benefit from the many efficiencies that could be reaped from such coordination, this task should be a high priority for national policymakers and planners, not only in China, but also in the United States, Japan, Europe, and elsewhere.

The urban-rural divide, in particular, has become an increasingly significant challenge of equitable and sustainable development in China as well as in the West. Institutionalized governance and economic cooperation at the city cluster level offers hope for benefiting large numbers of citizens through increases in productivity and competitiveness. To succeed, significant infrastructure investments at city cluster or even national levels are typically needed, along with the coordination of development in various other policy areas. In what follows we offer an account of China's city clusters, some international examples, and lessons from smaller-scale metropolitan governance, as well as some recommendations for improving the coordination of Chinese city clusters and, for the West, ways of learning from their successes and pioneering work.

Promoting and facilitating coordination of large urban territories, or Mega-Urban Regions (MURs), into economic clusters holds great potential for China's further sustainable urbanization and economic development. The nineteen city clusters included in China's Thirteenth Five-Year Plan (2016–20, the 13 FYP, for short) have already become population magnets, and account for more than 90 percent of the national GDP. Strengthened coordination across local administrative boundaries within cluster territories brings with it an array of social, economic, and sustainability benefits—including productivity gains from expanded agglomeration economies and efficiency gains that support the national objective of increasing domestic consumption to fuel future economic growth—lessons other countries may do well to learn from.

While megaregions of similar magnitude do exist in the United States, Europe, and Japan, serious governance coordination efforts or institutions of comparable scale do not. National policy goals that necessarily underlie such efforts are also lacking. The PRC's initiatives are breaking new ground, and all sides can learn from each other. Postindustrial Western countries with longer experiences of urbanization should consider that top-down infrastructure initiatives, along with effective industrial policies, can trigger economic transformation and improve spatial integration.

China could learn some lessons as well. Horizontally arranged governance can achieve good results, too—through regional parliaments or metropolitan agencies (though smaller in scale, the mechanisms may apply to larger mega-urban regions) with authority over land use, transport, and open space planning, and with budgets to back up their plans (e.g., by operating regional transport service). "Special districts" can also help to organize cooperation for specific purposes. Formed as legal entities and financed across administrative boundaries, special districts can manage resources or build and manage infrastructure like airports and ports. These districts often are encouraged and supported by additional national funding. Western countries also exhibit more market-oriented approaches from which the PRC could learn. Market approaches suggest that interventions need to be carefully assessed to avoid inefficiencies due to limited demand for infrastructure and services. Particularly in lesser-populated, often remote subregions where infrastructure is used less, the high cost of maintenance compared to returns often results in unsustainably low economic benefits.

City Clusters and National Economic Development Planning

The goal of city clusters is simple: to institutionalize governance coordination and cooperation mechanisms across local administrations within cluster regions. Some Chinese city clusters have started to coordinate their policies and improve connectivity, especially the three more mature, tier-one global MURs on the east coast referred to as *BeiShangGuang*. *Bei*jing-Tianjin-Hebei (BTH) has about 110 million residents, including all of Hebei, and generates about 10 percent of the national GDP. *Shang*hai and the Yangtze River Delta Agglomeration (YRD), with a total population of about 152 million, is the most productive, generating about 21 percent of the PRC's GDP with about 12 percent of its people. The new Greater Bay Area (prd/gba), including *Guang*zhou (with the Pearl River Delta) as well as Hong Kong and Macau, has a total population of about 70 million, producing about 12 percent of national GDP with about 5 percent of China's people. It competes internationally in innovation and high tech as a new kind of Silicon Valley. Other significant clusters include the Chengdu-Chongqing City Cluster (ChengYu) and the Central Yangtze River City Cluster (CYR) around Wuhan.

In recent years, massive national-level infrastructure investments have been made, particularly high-speed rail and highways, but also waterways, power transmission, and south-to-north water diversion infrastructure. This national development has created connections between the main cities within and beyond the cluster areas, with significant economic impact. Since 2016, plans have been prepared for each of the nineteen clusters included in the 13 FYP to promote connectivity within it as well as governance coordination. Such integration will aim at economic clustering, labor market, and infrastructure integration, as well as the protection of green open spaces, farmland, and natural resources.

China embeds the objectives of city clusters within national-level industrial policies such as the decarbonization of the country's economy. National policies also include regionally differentiated industrial transformation, aiming at "Industry 4.0" with the "Made in China 2025" program in the advanced city clusters, while promoting industrial upgrades inland and in resource-depleted subregions.

Large-scale regional development policies—like the Belt and Road Initiative, a twenty-first-century upgrade of the ancient Silk Road, and the Yangtze River Economic Belt—are further affecting and promoting city cluster development. The latter aims at subregional cooperation and integration, upgrading and relocating industries toward upstream regions of the river and watershed-based water resource and pollution management. This effort benefits more than a third of the country's population, including the three clusters of YRD, the Central Yangtze River Cluster (CYR) of Wuhan, Changsha, and Nanchang (which is currently less connected due to its large size) and upstream Chengdu-Chongqing.

Yet despite efforts designed to make inland clusters more attractive, people continue to vote with their feet, with more than 40 percent of all domestic migrants relocating to the three coastal clusters of *BeiShangGuang* during 2017. Interprovincial migrants have been changing their destination since 1978. Till the 1990s, many moved to traditional heavy-industry areas such as the northeast, but since then they have been migrating to *BeiShangGuang*, and more recently many preferred to relocate to BTH. Manufacturing, construction, and services were the major industries absorbing most migrants. Chinese planners will need differentiated approaches to policy, institutional arrangements, planning, and infrastructure investments in the coming years. Some projected clusters, especially CYR, are far beyond the one- or two-hour commuting circles now aimed at by planners in the PRC.

Each cluster is at a different stage of development, and each has a particular scale as well as goals for a certain scope of spatial integration.

The History of City Clusters in the PRC

Urbanization and industrialization have been at the heart of the PRC's rapid economic development over the past forty years, ever since the "Reform and Opening Up" policies were launched in 1978. Hundreds of millions of people were lifted out of poverty, and the urbanization ratio changed from about 19 percent to about 59 percent between 1978 and 2018, an increase of 1 percent per year on average. During this period, megacities and MURs emerged, with *BeiShangGuang* becoming the most developed. Urbanization in the PRC has been both a trend and a proactive policy. Rural residents migrated to the big cities for job opportunities created by industrial policies and the creation of special economic zones that attracted billions of dollars in foreign investments for export-oriented manufacturing.

Through land mobilization, market opening, real estate development, and infrastructure investments, urban development has generated a significant portion of economic output. But urbanization has also taken a heavy toll on the environment and increased social disparity between urban and rural areas, not only within the commuting area of larger cities but especially in the remote countryside.

City clusters have been part of the PRC's urbanization strategy since the 2006 National Urban System Plan. They have been included in the National New-Type Urbanization Plan (2014–20, the NUP for short) and the 13 FYP. The PRC's key objectives are to improve the distribution and layout of urban areas and population, as well as the management of natural and economic resources, by organizing city cluster development along east–west and north–south corridors. The plan calls for a proper industrial division of labor, the coordination of planning and infrastructure, ecological conservation, and environmental improvement to achieve integration and efficient development within city clusters. Each city cluster, and *BeiShangGuang* above all, seeks to optimize institutional innovation along with urban-rural integration.

City Clusters in the PRC as Planned in the 13th Five-Year Plan

Source: National Development and Reform Commission, The PRC's 13th Five-Year Plan (Beijing, 2016)

China today continues to experience rapid urbanization as well as supply-side development that often produces industrial, commercial, and residential structures beyond immediate demand. Effective city cluster governance coordination will be crucial to improving efficiencies in these areas and avoid redundancies and sprawling development. City cluster governance also has a role to play in advancing social inclusiveness through strengthened urban-rural linkages, as well as the preservation of open spaces. A sense of urgency is needed to get the next stage of urbanization right, and to get it right *now*, in this window of opportunity. Doing so will help to shape land uses, public right-of-way, trunk infrastructure systems, and protected open space systems before they become frozen into unsustainable, land- and resource-inefficient patterns for generations to come. City cluster governance can ensure sustainable cities and promote lifestyles that are low-carbon, climate-resilient, green, inclusive, and competitive. Looking ahead, coordinated development may also need to integrate adequate urban development, urban design, and real estate market responses to the demographic challenge of a rapidly aging society and, eventually, a shrinking national and urban population.

The Danger of Fragmentation

The key challenge city clusters face in the PRC, as elsewhere, is fragmentation. Cluster territories contain many administrative entities, each with independent authority over a variety of policy areas: tax and budget systems, land use planning, transport infrastructure and traffic management, industrial park development, open space planning and environmental protection, and even labor markets. Coordination across jurisdictions has begun to pick up, particularly in *BeiShangGuang*, but institutionalized coordination is still at an early stage. The danger is not too much centralization, but a lack of coordination and connectivity across local boundaries. Coordination will have to cross provincial boundaries, as well.

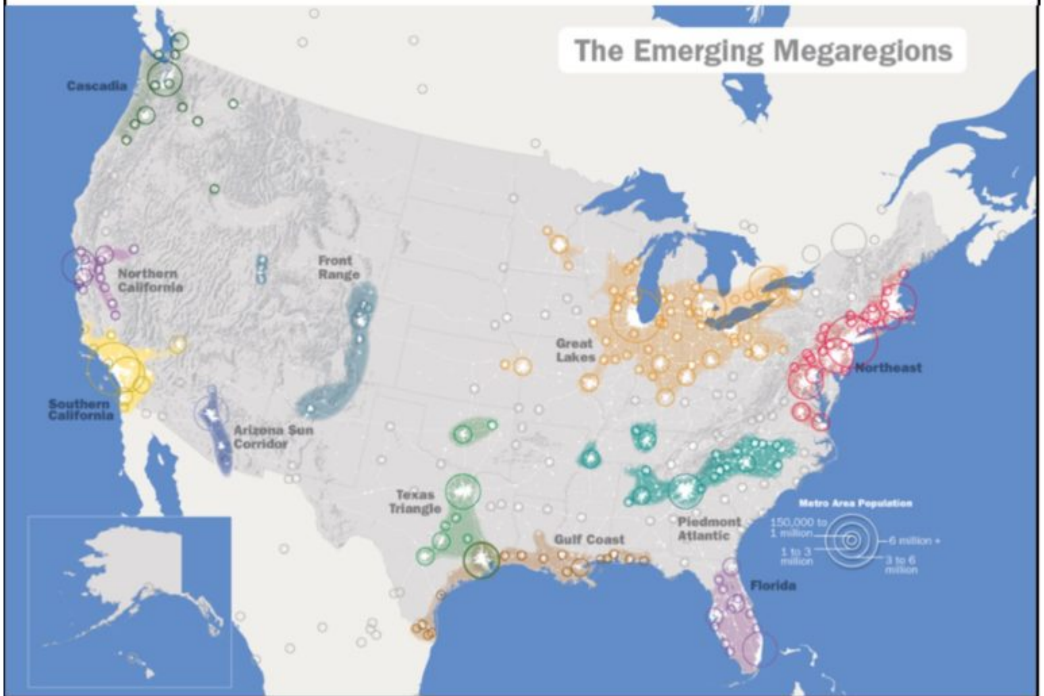
A formal strategy with preliminary investment plans has been completed for most clusters. These plans include short- and medium-term horizons, recommendations for spatial structure—including hierarchies, roles, and economic profiles of places within clusters—and they define metropolitan circles and development belts along transport corridors. Some plans include growth boundaries, ecological zones, and greenbelts.

All plans include a list of investment projects with a clear focus on transport, but some also include energy infrastructure, industrial park projects, and environmental improvement and management projects. The current challenge is that many plans are not fully integrated on the cluster level and seem to represent the interests of individual cities rather than respond to cluster-wide needs. As city cluster governance institutions strengthen, the plans can be revised from a more assertive city cluster perspective.

Mega-Urban Regions in the United States and Elsewhere

Mega-urban regions similar in scale to those in the PRC have emerged elsewhere, as well, and continue to gain economic importance. In a continuously urbanizing world, megaregions are increasingly connected to each other, even across national borders. A key consequence, seen globally, however, is that city clusters are dividing territories between high-performing, well-connected urban places and slower, more rural and remotely located regions.

EMERGING MEGAREGIONS IN THE UNITED STATES



Source: America 2050, Regional Plan Association.

Population maps and economic statistics show how the entire U.S. economy has become dominated by a few city clusters. The Northeast megalopolis in the United States, from Boston to Washington, has a population of about 52 million people. There have been plans for improved infrastructure within these clusters and across the United States, including high-speed rail networks, and California has taken steps to implement the first major line. Coordination within the American regions has not yet been institutionalized, however. But with many forms of coordinated governance and planning already present, the basis for stronger city cluster governance exists in the United States. A successful implementation of megaregions in the PRC can provide lessons for more institutionalized planning in America.

In the United States and Canada, metropolitan governance (smaller in scale than city clusters, but still across many local administrative boundaries) was first promoted in the early twentieth century, when the U.S. Census introduced Metropolitan Statistical Areas. Forming the MSAs helped the United States to account for urban and suburban growth beyond the administrative boundaries of large cities. The MSAs encompass various forms of cooperation, stemming from businesses as well as from neighboring governments. In 1898, Greater New York was created to consolidate five counties, making it the world's largest city at the time; in the late 1920s, the Regional Plan of New York provided guidance for investments there. The Regional Plan Association has published the fourth plan in 2017 with far-reaching investments in regional rail transport, open space, regional trail system, and climate change resilience.

Other areas have undertaken metroregion-wide planning, as well. The 1909 Plan of Chicago was a regional plan commissioned by the local business community. The Chicago Metropolitan Agency for Planning (CMAP) was created in 2005 as a consolidation of the Northeastern Illinois Planning Commission (NIPC) and the Chicago Area Transportation Study (CATS), to protect natural resources and minimize traffic congestion for the seven-county extended metropolitan area. Metropolitan Portland, Oregon, has coordinated development by imposing an urban growth boundary to promote compact development and protect farmland and forests. The twin cities of Minneapolis and St. Paul collaborate through their Metropolitan Council on many aspects, notably a tax-base sharing scheme designed to promote livability, competitiveness, equity, and efficient growth. Many of these "special districts" were established as a form of cross-jurisdictional governance for one or a set of specific functions, such as airports, ports, rail, commuter rail, subway, toll roads, bridges, parks, water supply, irrigation, industrial development, and many others. On an even larger scale, the United States and Canada have collaborated since 1953 on water resources, hydrologic, and hydraulic management through the Great Lakes Coordinating Committee.

In Japan, the Pacific Belt, or Tokyo-Nagoya-Osaka corridor, is also referred to as the "Tokaido" Megapolis, and a Shinkansen line train (the Japanese high-speed rail) links its more than eighty million residents. In Europe the "Blue Banana" city cluster refers to the urban corridor stretching from Manchester in the United Kingdom to Milan in Italy, with a population of more than a hundred million. There have been some subregional connectivity efforts, including a rail link across four countries, from the port cities of Rotterdam in the Netherlands to Genoa in Italy, and the European Union has adopted a number of policies to promote its regions on a smaller scale.

In Germany, the Hanover and Stuttgart metropolitan regions have elected regional parliaments governing various aspects of planning, including land use and transport for balanced and coordinated development, and public transport including regional rail. They have authority and budget allocations from local governments to operate regional rail, provide traffic management, promote open space protection and initiate regional park development and promote smart-region applications.

Through its regional cooperation programs as well as lending activities, the Asian Development Bank (ADB) has been providing considerable support to city clusters, metropolitan region coordination, and economic corridor development in Asia and the Pacific region. For example, ADB has supported the Greater Mekong Subregion (GMS) and Central Asia Regional Economic Cooperation (carec) through lending programs. In Bangladesh, India, Nepal, and Sri Lanka, city and economic cluster development has been supported through technical assistance and (for Bangladesh, India and Sri Lanka) also through loan projects. In the PRC, ADB supports cities, city clusters, and cross-jurisdictional environmental management and assists with policy development to enable innovative eco-compensation mechanisms.

Benefits from Coordination across Local Administrative Boundaries

Effective city cluster governance and institutional development in the PRC would unleash a wide range of benefits—benefits that should spur more serious interest in mega-urban region integration in other parts of the world. These benefits are:

- Improved *connectivity* and social protection system reforms could enable an *integrated labor market*, while reducing time needed for daily commutes.
- *Integration of economic clusters and regions* could enhance competitive advantages through more specialized spatial development. City clusters have a broader economic base, yet can still market themselves with a cluster-scale, place-branding campaign.
- *Coordination of land-use planning* could lead to more land use efficiency through better demand-based planning of residential, industrial, commercial, and institutional land. There would be less sprawl and a lesser likelihood of excess development land. City clusters will thus be more sustainable, livable, inclusive, and competitive. Larger, medium-sized, and smaller cities (and even towns) could be increasingly linked by intercity commuter rail transit. Meanwhile, at the micro level, compact,

walkable, mixed-use places could be encouraged, with an emphasis on transit-oriented development around existing and new public transit and/or regional rail stations.

- *Coordination of connectivity, transport networks, and public transport as well as linking rural places to the fiber-optic network* could contribute to urban-rural integration and benefit rural residents. Innovative last-mile services would also help to connect rural homes and villages.
- *Coordinated green open-space planning, and environmental protection* in the form of linked open-space systems, could be planned and implemented—including parks, farmland, forests, river estuaries, and wetlands. Together these would provide multiple ecosystems services and generate many cross benefits. These services include habitat networks for biodiversity, recreation, agricultural production, nonmotorized transportation, as well as management of pollution and flood risk. The open space system could link ecosystems and rural services to urban areas, and promote climate change resilience as well as agricultural production and distribution and recreation.

Together these approaches will contribute to further economic development and urban-rural integration, improving access to jobs and services by rural residents.

How to Build Successful City Clusters

China's achievements so far have resulted primarily from *top-down* policies and infrastructure systems (e.g., national high-speed rail networks within clusters) and also from *bottom-up* governance and investments (including municipal-level *hukou* reform and infrastructure such as subway networks).

Top-down national policies include the industrial policies discussed above, as well as a range of spatial development policies like *functional zoning* on a national scale. Functional zoning classifies areas ranging from development concentration zones to no-build zones conserving green open space (aka the "environmental red line"). National spatial policies also include urban-rural integration, rural vitalization, and *hukou* reform. National infrastructure investments have significantly improved city cluster connectivity and services. High-speed rail, highways, waterways, airport and port planning, electricity production and transmission, south-to-north water transfer, and other projects have also bolstered the city clusters. The high-speed rail network already connects many of the first-, second-, and third-tier cities within the city clusters, and enables daily commuting for workers and students between the major centers, plus equally important intermittent economic travel, such as when managers travel to meet suppliers. For example, travel on the Beijing-Tianjin and Guangzhou-Shenzhen lines takes half an hour (just an hour for Shanghai-Nanjing), bringing workers and companies within daily commuting distance.

Bottom-up achievements come primarily from municipal-level policies and infrastructure—including subways and road networks, water supply and other public goods and utilities, pilots for *hukou* reform and social protection systems, urban-rural integration, and rural upgrading pilots that have created benefits across municipal borders. While still at early stages, a number of accomplishments in pioneering mega-urban region governance in the PRC originated locally, and some were led by national and/or provincial level government agencies.

Coordinated governance and institutional development. The BTH city cluster has been formally cooperating since 2005. It now holds regular high-level meetings plus working groups on policies in areas of air pollution reduction and environmental management, industrial relocation, connectivity, and transport. Even older than BTH, the YRD (Yangtze River Delta) Council was established in 1992 and assists in a variety of coordination efforts. Similar efforts are underway in the Pearl River Delta Greater Bay Area. The ADB is supporting the Yangtze River Economic Belt national policy with a $2 billion program from 2018 to 2020, including projects in CYR, ChengYu, urban and urban-rural development, transport, environment, agriculture, and natural resources, with the national government offering supportive policies and additional funding programs.

Economic cluster development coordination. Within clusters, the relationship between cities has primarily been one of competition to attract companies, jobs, and qualified workers. More benefits could be harnessed from improved cooperation on cluster-wide development, place-branding, and tourism marketing—all of which would generate greater economic benefits for the clusters as a whole. In the BTH region, industrial cooperative organizations have been formed, such as the Technology Transfer and Collaborative Innovation and Cultural Industry Development Alliance. In the YRD, the Synergy Industry Fund was founded in 2018 to support biotechnology and the Internet of Things. The YRD plan aims to become a high-value-added modern economic cluster with a globally competitive service economy and intelligent manufacturing. It includes investment plans for a 5G network across the region. The GBA plan aims at competing globally as a new digital technology region. Between 2012 and 2016, patent registration has been growing at an annual rate of 34 percent, putting the

GBA, especially Shenzhen-Hong Kong, among the top three in the Global Innovation Index in 2017. The GBA is promoting the Guangzhou-Shenzhen Science and Technology Innovation Corridor, where many of the Chinese tech giants are already located.

Labor market integration and coordination of public facilities and services. Recent achievements in the area of connectivity improvements have enabled convenient commuting for workers, employees, technical staff, and workers, and especially travel between the large cities within the clusters. The introduction of a nationwide residence card system and policies promoting the portability of social protection schemes within greater Beijing and greater Shanghai have been important in facilitating labor market integration. Workers now have the opportunity to access more jobs and widen the potential workforce pool for companies. Still, further improvements integrating labor markets across city clusters are important for inclusive and economically beneficial development. City clusters greatly benefit from labor mobility and the coordination of higher education, technical training, health services, and transferability of social insurance, particularly related to pensions. In prd/gba, the Guangdong Province Government provides free vocational skills training in rural areas. Health care centers have been established in all towns and villages. Rural migrant workers are given access to insurance schemes for unemployment, retirement, work-related injury, and medical and health care throughout the PRD. Three local governments in Guangzhou, Shenzhen, and Zhuhai established a talent cooperation demonstration zone in 2012 to promote the mobility of talents so that (for example) Hong Kong and Macao residents can be exempted from local employment permits.

Land use planning and land use efficiency. Nationally there have been significant achievements in the areas of large-scale infrastructure, special economic zones, and functional zoning, but coordination across boundaries within city clusters has still been limited. Local governments have an interest in preserving their authority over land use planning and urban expansion planning due to the important revenue source from land leases. This interest might result in reluctance to give up local land-based development, and so may lead to some level of continued overdevelopment and sprawl. In BTH the Land Use Master Plan for Coordinated Development (2015–20) defines four kinds of regional spatial development patterns and clarifies land use principles. The PRD had already prepared a Plan for Coordinated Development of PRD Cluster (2004–20) which also includes a regional open space system.

Connectivity and transport networks and public transport. Nationally directed high-speed rail, highway, airports, ports, logistics, and waterway infrastructures have greatly improved connectivity within and across city clusters. The gap between strong national and strong municipal systems, however, results in a transport system service gap—an area where the PRC can learn from international clusters. Generally, public transport and road infrastructure is not designed to serve the entire city cluster region. In some cases, infrastructure literally stops at administrative boundaries. Beijing, Shanghai, and Guangzhou's subway systems, however, pass beyond the municipal boundaries. Recent BTH city cluster transport plans aim at an improved intercity railway system that connects all the prefectural-level cities and higher. The plans encompass the construction and integration of a seventh ring road, and include an intercity commuter rail network linking cities within the cluster. In 2018, the YRD governments signed an agreement to promote the strategic planning of a regional railway network and coordinated development of civil aviation, including connecting all dead-end highways in the region. They plan to invest in a highly innovative Hydrogen Corridor as the first interprovincial infrastructure of its kind, in order to promote hydrogen energy infrastructure and hydrogen fuel cell vehicle development throughout the YRD. In prd/gba, both the Hong Kong-Zhuhai-Macao Bridge and seamless high-speed rail service linking Hong Kong with the PRD started operation in 2018.

Green open space planning and environmental protection. Higher-level policies and municipal-level planning have bolstered green space planning and environmental protection. This includes identification and implementation of national environmental red lines, protection of unesco world heritage sites, national and provincial natural and heritage parks, water source protection areas and farmland. Continued rapid urban expansion, however, poses a threat to natural and agricultural green land especially within city cluster areas in the PRC. The BTH Coordinated Development of Ecological Environmental Protection Plan, released in 2015, defines open space protection for the entire BTH region, sets a limit for resource consumption, and defines its own water and air quality standards. Local governments in the BTH cluster successfully cooperate on environmental management like air pollution reduction and eco-compensation policies and projects (both with ADB support). The YRD has a quota of at least 15 percent of the land area to be designated as protected open space. The PRD completed its Green Road in Nine Cities project in 2010, which won the United Nations Habitat Award in 2011. Recently the PRD started to implement its National Forest City Cluster Plan (2016–25), aiming at ecological security and identifying many ecological projects.

Learning from Each Other

While urban regions of similar magnitude exist in the United States, Europe, and Japan, effective governance coordination in these countries only exists on a smaller, metropolitan scale. Those tasked with guiding city clusters can learn from the Chinese example—as well as the reverse. The United States and other Western countries need bold infrastructure investments of the sort that the PRC has made, and effective industrial policies as well. Together infrastructure and industrial policy are the twin pillars of national and city-cluster-scale initiatives, and they can trigger economic transformation and better spatial integration.

Meanwhile, China needs to learn from the West that horizontally arranged governance also has a place—for example, in the form of regional parliaments or agencies with authority over land use, transport, and open space planning. Horizontal cooperation can achieve beneficial results by involving all the stakeholders in major projects. In particular, American-style "special districts," formed as legal entities and financed across administrative boundaries (often with national funding), can help to manage resources and infrastructure such as airports and ports.

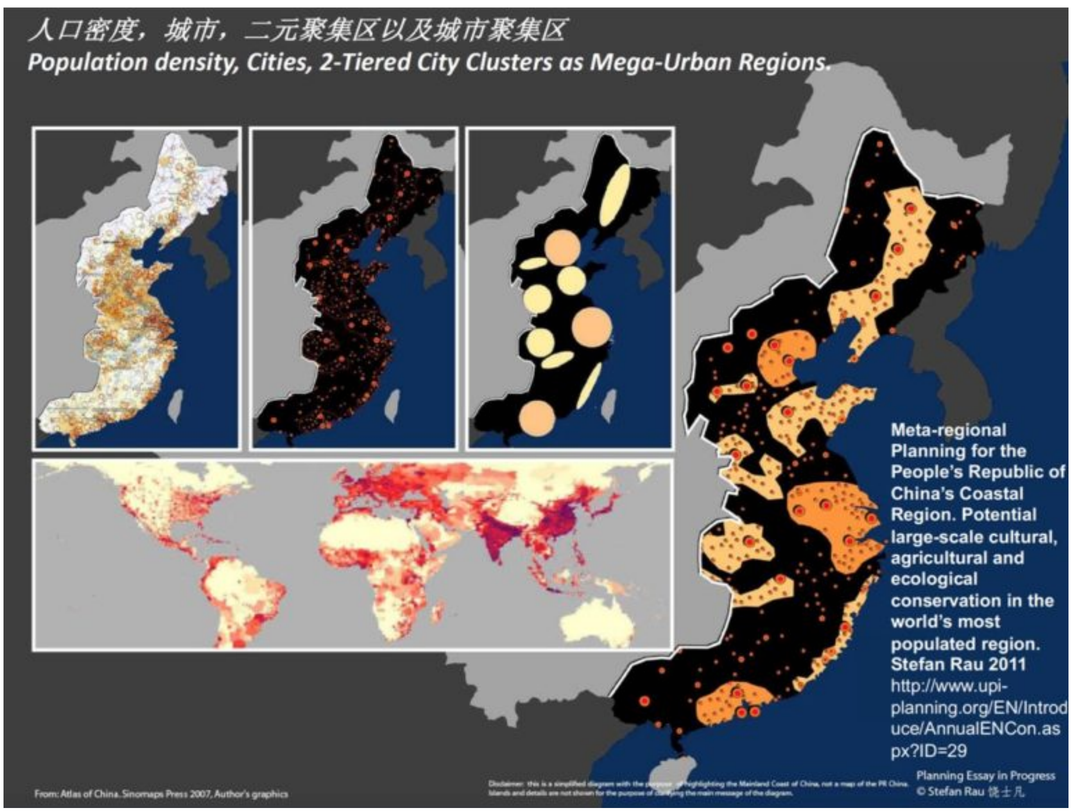
City clusters show promise in the difficult task of navigating uncertain economic growth in the twenty-first century, while preserving and advancing existing industrial gains. China and the West both need to establish institutions with clear authority over key areas of planning and management at a cluster-wide scale. Budgets are needed for key infrastructures, along with authority over a sustainable source of revenue.

To be effective and reap expected benefits, cluster-wide governance authorities must have responsibility over a wide range of areas: *transport infrastructure* (regional intercity commuter rail, logistics centers, and intermodal transportation hubs); *integrated labor markets* with improved connectivity and regionalized or even nationalized social protection systems; *coordinated public service facilities* in higher education and health; enhanced *regional-scale land use planning* to avoid leapfrogging and sprawl. Small cities, towns, and villages must be integrated within cluster economies to reduce the divides in urban-rural incomes, wealth, and services.

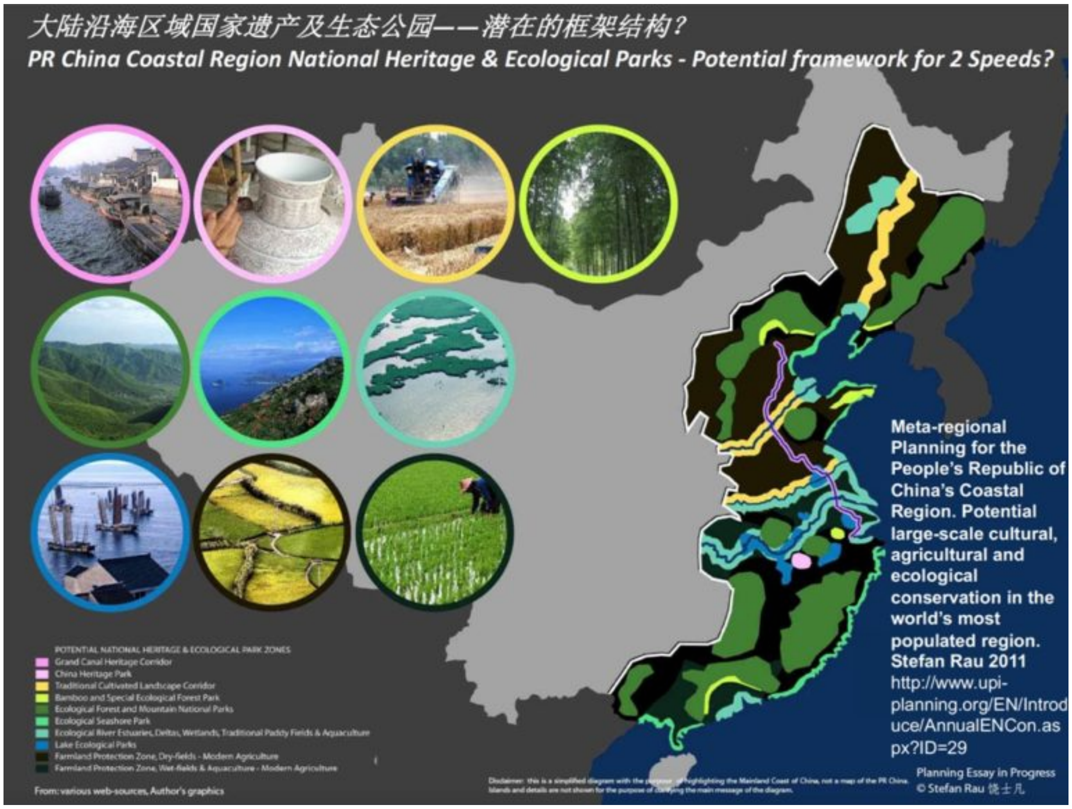
While city cluster planning in China is anticipated up to 2035—a period described as a "New Era" guided by President Xi Jinping—a longer-term perspective is also important. Land uses, public right-of-way systems, trunk infrastructure corridors, and asset investments as well as formally protected open spaces will remain for much longer periods. For the year 2100, the United Nations predicts that the total population of the PRC will decline significantly from about 1.41 billion today to between 0.7 and 1.05 billion, depending on birth rates. National plans and city cluster plans should be regionally differentiated to be strategic, robust, and flexible to adjust to these scenarios.

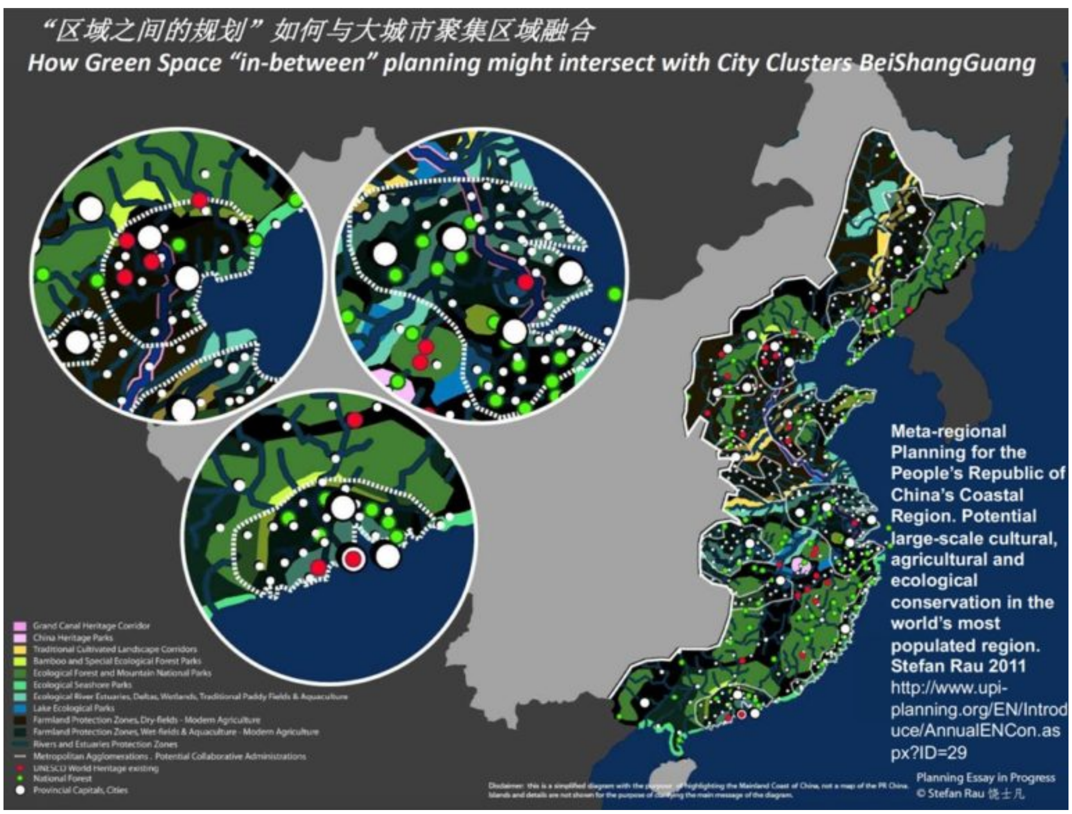
In the long term it will be crucial to preserve scarce green land resources and effectively plan green open space systems and protect the natural environment, biodiversity habitats, wetlands, water source protection, farmland, cultural heritage, and to ensure significant benefits from multiple ecosystems. The increasing urbanization and concentration of urban development in the PRC's city clusters, and megacities in particular, will benefit from a *territorial system of two speeds* that complement each other.

First, a *high-speed* system of the most economically robust clusters of world-class and second- and third-tier cities, together with their hinterlands, is needed, with clearly defined urban areas and restrictions on land development. Combined, this will help to avoid extensive land consumption and oversupply of industrial, commercial, and residential land. Second, *slow-speed*, large-scale green open space systems are needed, consisting of protected natural, agricultural, and cultural land. These should be elevated as national and provincial parks, in order to provide a range of ecosystems services (including recreation), and to offer people a choice not only of urban but also of traditional rural and more nature-based lifestyles. Both types of spaces are essential for competitiveness and well-being, and for climate resilience and low-carbon development on a large scale. As the world is increasingly divided into urban and rural geographies and populations, new forms of equitable partnerships may be needed.



This approach represents, in our view, the optimal spatial framework for the extended coastal region of the PRC, one of the most densely populated areas in the world. The concept is a hierarchical city cluster system with concentrated development zones, representing a high-speed area of urban and economic development. This would be accompanied by a framework for a complementary system of a large-scale, protected national park system, representing a slow speed of highly restricted development and natural and heritage protection, offering a diversity of territories and lifestyles, ecosystems services, climate resilience and recreation, balancing urban development with green space protection. Such balance would offer two forms of equally valuable models of development that would mutually benefit one another.





Development of urban regions in the United States has long offered a model of economic development requiring less assertive governance structures across its most economically prosperous zones. Coordinated planning efforts across American city clusters, however, have been difficult to implement, and perhaps lessons can be learned from the PRC, such as the benefits of clearer industrial policies for each mega-urban region, as well as more extensive public infrastructure investment and better facilitation of private infrastructure investment. The situation of Chinese city cluster governance, while still at early stages of development, offers useful lessons in these areas.

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verify the facts.

Disruptive Innovation in America and China

R. STEPHEN BRENT

The concept of disruptive innovation arose from the study of innovation in companies, but it can also be applied to nations. In this essay I will use some of the concepts of disruptive innovation to analyze the dynamics of national innovation and growth in America and China.[1]

The United States is supposed to be the home of disruptive innovation, but Harvard Business School professor Clayton Christensen has identified two dilemmas that limit company investments in disruptive technologies. The innovator's dilemma arises when companies that invent a new technology cannot commercialize it because doing so would disrupt their existing business. The capitalist's dilemma occurs when companies refuse to make the risky investments needed for disruptive innovations because of high "hurdle rates" (required rates of return). These problems limit disruptive innovation in many parts of the American economy. The exception is the tech sector, where "new economy" companies face very different market dynamics. These companies operate in winner-take-all markets where the rewards of success are so enormous that venture capitalists compete with each other to fund risky start-ups.

China has circumvented these dilemmas by pioneering a new approach to global competition. This approach marries cheap labor (at least initially) with foreign technology and high investment to develop competitive advantages in targeted industries. This strategy has allowed China to sweep the field of low-wage—and increasingly higher-value—manufacturing and achieve the fastest growth in history.

But this strategy has also reduced manufacturing-led growth in other nations, including the United States. In part, this is because China's approach, in key respects, has been the opposite of America's: China rejects high hurdle rates in favor of cheap capital and investment subsidies to maximize its total level of national investment. Indeed, consciously or not, China's strategy has been perfectly compatible with U.S. economic preferences, which prioritize short-term returns to shareholders, while China prioritizes the long-term development of its industry and increasingly advanced technologies.

High Hurdle Rates, Low Growth

Most Americans are aware that U.S. growth and productivity gains have been slow since the Great Recession, but many are not aware that the slowdown began in the early 2000s. The problem was not falling corporate profits—profits rose. The problem was that many companies began to invest less of their earnings in human and physical capital that could raise productive capacity. Productivity growth dropped in 2004 and again after the Great Recession.

Why did this happen? There are multiple causal factors, but I will focus on one driver that has to do with disruptive innovation dynamics: high hurdle rates for new investments.

In the 1980s, the U.S. government began a systematic effort to deregulate finance, and U.S. companies began to modify their investment practices under the influence of the theory of shareholder primacy. Shareholder primacy encouraged companies to focus on maximizing returns to shareholders. The theory held that making companies focus more on shareholder profits would lead to higher national productivity and growth.

But this is not what has happened. A recent study by the U.S. Senate Project for Strong Labor Markets and National Development, led by Senator Marco Rubio, argues that excessively high corporate hurdle rates have "reduced private investment [which has contributed to] . . . slower economic growth, stagnant productivity growth, and less pay for workers."[2]

In theory, corporate hurdle rates (required rates of return that proposed investments have to meet in order to be approved) should be related to the cost of capital. A company should make an investment if the return on invested capital (ROIC) exceeds the weighted average cost of capital (WACC). But this is not the way that American companies have been operating. The Rubio report quotes studies showing that "most large public companies use company hurdle rates between 6.5 and 7.5 percent above their 'actual cost of capital.'" That means that a WACC of 8 percent could lead to a hurdle rate of 15 percent. At such a high required rate of return, companies will forgo many investments that would have created economic value. As the report says, "If a firm makes investment decisions using a cost of capital over the 'real' rate, then . . . the firm is under-investing, and so foregoing real future returns."[3]

Why would firms set hurdle rates that are significantly above the cost of capital? The report suggests that a major reason is the incentive structure of the financial sector. Shareholders can generate returns through corporate share buybacks and other financial engineering methods over a relatively short horizon with very little risk. In order to be considered viable, therefore, new investments must be more attractive on a risk-adjusted basis than these financial engineering alternatives. And since investment in new innovations usually carries more risk over a longer time horizon, the expected return threshold for such investment is typically quite high and significantly in excess of the cost of capital.[4]

The Rubio report contrasts current U.S. business practices with the strengths of America's earlier model of "managerial capitalism" as described by business historian Alfred Chandler. Before shareholder primacy took hold, companies like Ford, General Electric, and DuPont did not focus on short-term returns, but on building the long-term competitive capacity that Chandler believed was critical to sustained productivity and profit gains:

> The continuing productivity, competitiveness, and profitability of these enterprises and of the industries and nations in which they operate depend on constant reinvestment in order to maintain and improve product-specific facilities and to develop and maintain product-specific technical and managerial skills. A crucial theme of this history of the modern industrial enterprise is that creating and maintaining such capabilities is a continuing, long-term process—a process that requires sound, long-term perspectives from the decision-makers responsible for the health and growth of their enterprise.[5]

Christensen likewise believes that high hurdle rates have hurt long-term productivity. He furthermore distinguishes between "efficiency innovations" that reduce costs or cut jobs and "market-creating" or disruptive innovations that create jobs. Because efficiency innovation investments usually pay off quickly, they can often pass high hurdle rate tests. But because market-creating or disruptive innovations frequently require investments that take years to pay off and have high risks of failure, they often cannot. As a result, "companies invest primarily in efficiency innovations, which eliminate jobs, rather than market-creating innovations, which generate them."

Christensen sees this as part of a larger problem. When American companies use high hurdle rates to ration investment, they are treating capital as a scarce asset. But in economic terms capital is not scarce; in fact, the world is "awash in capital." Global financial assets have increased much faster than global output of goods and services, and the cost of borrowing is extremely low. This should produce lower hurdle rates and higher investment. But U.S. companies don't treat capital that way, which limits the ability of capitalism to perform one of its basic social functions—encouraging Schumpeterian creative destruction and national economic advance. As Christensen says:

> This, then, is the capitalist's dilemma. Doing the right thing for long-term prosperity is the wrong thing for most investors, according to the tools used to guide investments. In our attempts to maximize returns to capital, we reduce returns to capital. Capitalists seem uninterested in capitalism—in supporting the development of market-creating innovations.[6]

Faang Exceptionalism

If the capitalist's dilemma is such a big problem, how has Silicon Valley been able to produce so many successful companies (the faangs or the g-mafia)?[7] Do capitalists' dilemma constraints not apply to them? In fact, the answer is that they do not. To understand why, we have to dive deeper into the unusual business dynamics of these companies.

Some of the best insights into the faangs have been offered by venture capitalist Peter Thiel.[8] Thiel argues that most Silicon Valley companies begin as start-ups with a single business concept. Many start-ups compete in a given sector, but normally only one emerges to dominate it. The risk of failure at the start-up phase is therefore extremely high. This makes the race to break out of the pack intense—start-ups and their venture capital supporters often accept extensive losses in order to expand their number of customers rapidly.

They do this because of the unusual characteristic of network effects—the value of the product to each individual user increases as the number of users expands (often exponentially). The factors driving this phenomenon differ in each case: Microsoft's business software became the industry standard; Google had a superior search engine; Facebook built the preferred social media product. But in each case one company came to dominate the market and reap "winner-take-all" rewards. These dynamics are further reinforced by the low marginal cost of expansion for internet and software businesses. Once the initial infrastructure is in place, the cost of adding new users to the network, and the time it takes to scale the business, is relatively low, in contrast to manufacturing businesses, which require more capital to expand.

Thiel is quite clear that these network effect businesses often acquire substantial monopoly power. He sees this as a good thing. In addition to providing the necessary returns that make venture investing attractive, it helps companies develop new technologies quickly, spread them widely, and invest in further improvements.

Moreover, the Silicon Valley model avoids the innovator's dilemma. Established companies often have great difficulties investing in or commercializing disruptive innovations because doing so would cannibalize their existing business lines, require new business methods, or conflict with existing corporate cultures. To address these problems, Christensen recommends that companies put disruptive innovations in separate divisions or start new companies. Silicon Valley start-ups avoid this problem altogether by starting out as independent enterprises with a desire to disrupt the status quo.

Second, start-ups and their venture capital funders do have to worry about rates of return, expected payback periods, and risks of failure, but these concerns are much more easily met because of winner-take-all effects. The risks of failure are extremely high, but the rewards of winning—the prospect of monopoly returns—are so great that increasing amounts of capital flow to venture investors to chase these opportunities.

The economic dominance of the faangs suggests that the United States is well positioned for future economic and technological competition, as does America's strong record in leading innovation and the strength of our universities. These are real strengths. But the United States also has some weaknesses.

First, the technology innovations of the faangs have not led to broad-based changes in mainline American businesses. As Thiel has observed, we have seen innovation in the world of bits, but not the world of atoms. Integration of digital technologies into non-IT businesses is difficult to do. Deciding what corporate processes can most benefit from artificial intelligence, for example, requires knowledge of both the business and the technology. The challenges involved in this sort of innovation, moreover, have become more difficult because advanced manufacturing industries and skillsets have been offshored, as Harvard Business School professors Gary Pisano and Willy Shih have argued.[9]

Second, public funding for basic research is down. One of the keys to American leadership of the IT revolution was the high investment that the U.S. government made in basic research and technical education in the 1950s and '60s. This investment was made for national security reasons, but it produced many of the foundational technologies that gave rise to Silicon Valley. As MIT economists Jonathan Gruber and Simon Johnson have argued, there are hard economic reasons why private companies will not invest enough in basic research, and why fundamental research breakthroughs depend heavily on public funding.[10] The United States is still the leading funder of public research, but that funding is down significantly from its post-Sputnik peak of 2.0 percent of GDP. Today it is 0.7 percent of GDP and declining.[11]

Disruptive innovation in China

When China began its reform and growth push in the late 1970s, it built on East Asian precedents, modified them to suit its needs, and pioneered a new approach to foreign investment.

In some areas, China's post-Mao leaders followed in the footsteps of East Asian predecessors. Like Japan, Korea, Taiwan, and others, China embraced state activism, industrial policies, and mercantilism. But China also modified the East Asian model. First, it relied more heavily on cheap labor as its main source of competitive advantage. Second, it took the East Asian practices of high savings and investment further. Investment levels in most of the "Asian Tigers" were in the range of 25–35 percent of GDP at their peaks, but China's investment reached an incredible 35–45 percent of GDP.

These incremental innovations might have allowed China to achieve fairly strong catch-up growth. But the key to China's hyper-growth—the main factor that has put it in a different league—has been its unique approach to foreign technology. China's leaders made a critical decision to welcome foreign investment at the very start of Deng Xiaoping's growth push. This was a major departure from the paths that Japan and Korea had taken (both had blocked foreign investment).

Surprisingly, China's leaders were able to agree on this policy without a great deal of debate. Why? One reason was that it was not a direct challenge to Communist Party ideology. Decisions about domestic economic reforms were contentious, but foreign investment was viewed in more instrumental terms. China had long had an interest in acquiring foreign technology (going back to the Soviet period), and foreign investment was one way to do that. China's leaders were also still attracted to Mao's idea of a great leap forward. They saw foreign investment as helping to achieve that—as suggested by the label they adopted: "foreign leap forward" (sometimes translated as "Western leap forward").[12]

The new model began to produce benefits quickly. Very soon after China opened its borders, investors from Hong Kong and elsewhere in Asia began manufacturing operations in Shenzhen, which allowed the region to make very rapid gains in exports (doubling every year). The benefits grew as regional investment expanded along the coast, driving many of China's gains in manufactured exports. It is hard to say how fast China would have grown without the foreign component. Its reforms in agriculture and township and village enterprises would have brought some growth, but the foreign-assisted export sector was key. It helped China increase the pace at which it moved workers from farms to factories, dramatically increasing productivity.

China's Growth After WTO Accession

China's growth was strong in the 1980s and '90s, but the vast majority of China's gains in total GDP have come since 2001, when China joined the WTO. American policymakers were quite supportive of China's accession to the WTO and imposed few conditions on U.S. support for it. Because WTO accession would require China to reduce its tariff barriers, many claimed it would produce one-sided gains in favor of the United States. China saw the WTO in very different terms, however: it would use the WTO seal of good housekeeping to launch a more aggressive push in manufactured exports and to tap the interests of foreign companies in helping it do it.

China reduced its tariffs as required, but in these early years it substituted an undervalued currency that effectively penalized imports and subsidized exports. It also used every tool in its tool kit to subsidize investments and exports, maximize acquisition of foreign technology, and dominate low-wage manufacturing.

China was greatly assisted in this process by the eagerness of American and other Western companies to invest in China. Western investment had begun to tick up in the 1990s, but went into overdrive after 2001. The companies had two motivations: to get in on the ground floor of China's expanding domestic market and to use China as a base of production for labor-intensive phases of their value chains for exports.

The second function was facilitated, on the one hand, by fundamental changes in technology and, on the other, by the growing prevalence of shareholder-oriented corporate management. New developments in information technology and communication made it possible for Western companies to locate different phases of their value chains in different countries.[13] As a result, it became much easier for companies to offshore labor-intensive phases of their production, which they did with enthusiasm. American companies were particularly keen to offshore because it helped them respond to increasing pressure from shareholders to reduce capital intensity and increase returns.

In British economist Richard Baldwin's account, Western offshoring could have gone to many low-income countries. But in practice the vast majority of it went to China, because China had a manufacturing base, was a low-cost producer, and made it easy for foreign investors to enter into advantageous partnerships. Offshoring required Western companies to send technology to China to make advanced production processes work. This meant that China dominated a new synthesis of its cheap labor and Western technology, which boosted its economy to another level. Foreign technology not only helped China increase the dollar-denominated value of its exports fivefold from 2001 to 2007, but also raised the technology level of those exports.[14] This helped China achieve fast productivity gains and rapid industrial upgrades.

A Whole-of-Nation Strategy

China also used joint venture requirements, forced technology transfers, intellectual property theft, an enormous overseas scholarship program, and other methods to boost the movement of technology and manufacturing from Western nations to its own shores.

Western companies who wanted to invest or sell into China often had to comply with joint venture requirements and accept forced technology transfers. The companies were often willing to make these major technology concessions in return for short-term benefits (again to satisfy shareholders). China has also been the world's leader in the theft of Western intellectual property and business secrets for commercial purposes. It has sent thousands of students to Western universities in technical disciplines, and China has become a great advocate of technical cooperation, shared research, and research labs that cross national boundaries, which has allowed it to gain access to Western knowledge.

Furthermore, China has been highly adept at adapting foreign technologies to local needs. According to business analysts Dan Breznitz and Michael Murphee, Chinese companies for the most part don't try to compete with Western companies at the cutting edge of technology; instead, they specialize in products that are "one step behind."[15] They focus on process improvements that make them more efficient partners in multinational production or allow them to produce lower-cost versions of goods that are more suitable for markets in China and other emerging-market countries. Chinese companies have achieved great success by creating local versions of products that offer 80 percent of the value at 50 percent of the cost.

Finally, China has taken a radically different approach to public and private investment. First, it treats public investment in research and technical education as an instrument of national economic and security strategy. It has been steadily increasing this investment and focusing much of it on critical technologies such as quantum computing, robotics, and genetic engineering.

Second, China completely rejects the American model of high corporate hurdle rates. In the Chinese view, the purpose of capital is to not to ensure high rates of return on individual investments, or maximize value to individual shareholders, but to maximize the total volume of investment—because that maximizes the pace of industrial advance. To maximize the volume of investment, capital should be cheap or free, or even provided by the government. Chinese provincial and local governments regularly give favored investors free land, low-cost loans that may not have to be paid back if the business fails, and favorable treatment in government procurements. They are aggressively subsidizing corporate investment.

China is also willing to front-load the costs of getting a new industry started if it views that industry as important for future growth. For example, the government has extensively subsidized electric vehicle development, including public funding of a charging station network in advance of market demand, a Chinese version of "if you build it, they will come."

These practices depart radically from Western norms, but they have been highly effective in promoting rapid industrial advance. The combination of strong productivity gains, boosted by foreign technology, and extremely high investment has been a powerful one-two punch.

The results have been world-beating. From 2001 to 2013, foreign direct investment (FDI) inflows to China rose 300 percent, China's share of global manufacturing rose 400 percent, and China's exports increased 500 percent. From 2001 to 2016, China increased its share of global manufacturing value added from 6 percent to 26 percent, overtaking the United States and the European Union to become the largest manufacturer of goods in the world.[16] According to investment banker Stewart Paterson, "In the first decade of the century, an additional 205 million people moved from the countryside to urban areas. Wages would rise twelvefold over the coming fifteen years."[17]

Experts believe that foreign investment has been responsible for a large share of China's hyper-growth. For example, business analyst Michael Enright estimates that foreign investors and foreign-invested enterprises accounted for 33 percent of China's GDP and 27 percent of its employment in 2013.[18] The new model combined China's cheap labor and willingness to invest in a strong manufacturing base with the cutting-edge technology, skills, and marketing of Western companies. China did suffer minor disruptions from this strategy—letting foreign companies sell in China made it harder for local companies to compete. But China reaped compensating benefits in joint ventures and forced technology transfers that were worth much more. Overall, the strategy has been almost pure gain for China.

Others Have Paid

The same cannot be said for the rest of the world. If China has transferred technology and manufacturing from Western nations to itself, the implication is that Western nations have suffered losses. How great are those losses? Economists have offered different views. Many in the neoclassical tradition have argued that the costs to the West have not been that large, while others say that the costs have been quite high. The latter group includes Richard Baldwin, who says of offshoring:

> The result was a quite sudden and massive deindustrialization of the advanced economies. . . . Industrialization took a century to build up in advanced economies. Deindustrialization and the shift of manufacturing to emerging nations took only two decades. . . . [Western] workers no longer had privileged access to the know-how developed by their national firms. The monopoly that advanced-economy workers used to have on advanced-economy technology was broken.[19]

Investment banker Stewart Paterson agrees. He argues that "economic engagement with China from 2001 onwards led to a rapid and dramatic deterioration in the real earning power of workers in the developed world.

There has not been a period in which median earnings in the developed world have been so stagnant for so long since the Victorian Age."[20]

These negative impacts on Western manufacturing are now increasingly discussed, but the negative effects on industrial advance in developing nations have received much less attention. China likes to portray itself as a champion of the developing world, but the economic reality is that its dominance of low-wage manufactured exports and of Western offshoring has been so complete that it has been difficult or impossible for other developing nations to develop their own industries. The "China price" is so low that other producers cannot compete. If manufactured exports are the "growth escalator" for poor countries wanting to advance, China has crowded other developing nations off the escalator. They have been forced to rely on commodity exports, often to China, which may boost their growth for a while, but which often lead to overvalued currencies when commodity prices are high, and to recession when commodity prices fall.

The New Game

These impacts have not been totally of China's making. China made wise choices to encourage investment and acquire foreign technology, but the full power of its strategy came later when its policies were buttressed by external developments: the shift in value chains, the Western decision to admit China to the WTO with few conditions, and the aggressive pursuit of offshoring by Western companies, encouraged by a narrow focus on shareholder value.

Where are China and America headed in the future? I will offer three predictions.

First, China's hyper-growth is likely over. China's growth has slowed since the Great Recession and is likely to decline further because of aging, rising wages, and high corporate debt. China's leaders also know this, however, which further motivates their efforts to achieve homegrown technological dominance, as exemplified by the Made in China 2025 strategy, which calls for developing global champions in key advanced industries.

Second, China will continue to benefit from technology flows from America and other Western nations. American companies will continue to want to both sell their products and maintain production in China. Some politicians are rethinking these involvements because of the threats to critical technologies posed by the Made in China 2025 strategy and other tensions, but corporate leaders, and shareholders, have no interest in a mass exodus. China will also continue to benefit from the openness of Western institutions.

Third, the challenges that Chinese companies pose to Western companies, including tech companies, are likely to increase. Chinese companies can be expected to push further with their strategies of producing goods with 80 percent of the value at 50 percent of the cost, which will put them in an advantageous position to serve the expanding customer bases of emerging market nations that are expected to lead future global demand. Chinese companies will also likely be the dominant providers of core infrastructure technologies worldwide, such as 5g components, and this will boost their companies further up the value chain. Meanwhile, unless significant reforms are undertaken to alter incentives for U.S. companies and financial institutions (as well as increasing government research), the U.S. will likely continue to underinvest in new innovations and domestic industry.

As Christensen has argued, challengers who come up from the low-cost end can be powerful competitors, and incumbents often don't see these new threats coming.

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The views expressed in this article are the author's own and are not the official views of National Defense University.

[1] I am using the term disruptive innovation in the general way that it is often used in popular discourse, rather than the precise technical definition that Clayton Christensen had in mind when he coined it. Christensen's concept applied to new producers who enter markets from the low-cost end with products that are initially of inferior quality but whose quality improves over time, allowing them to take increasing market share from the market leaders. For example, in the American steel industry, mini-mills took market share from the integrated steel mills. In looking at the United States I will use the term disruptive innovation in its more popular sense to refer to new technologies or new business models that transform old orders. In the case of China I will use the term in a broader sense to examine China's innovative approach to foreign investment and its disruptive consequences.

[2] *American Investment in the 21st Century*, Project for Strong Labor Markets and National Development (May 2019), 12.

[3] *American Investment in the 21st Century*, 30.

[4] *American Investment in the 21st Century*, 24.

[5] *American Investment in the 21st Century*, 38.

[6] Clayton Christensen and Derek van Bever, "The Capitalist's Dilemma," *Harvard Business Review* (June 2014).

[7] The faangs refer to Facebook, Apple, Amazon, Netflix, and Google. Some prefer the less well-known g-mafia label (Google, Microsoft, Amazon, Facebook, IBM, and Apple).

[8] Peter Thiel and Blake Masters, *Zero to One: Notes on Startups, or How to Build the Future* (New York: Crown, 2014).

[9] Gary P. Pisano and Willy C. Shih, *Producing Prosperity: Why America Needs a Manufacturing Renaissance* (Boston: Harvard Business Review Press, 2012).

[10] Jonathan Gruber and Simon Johnson, *Jump-Starting America: How Breakthrough Science Can Revive Economic Growth and the American Dream* (New York: Public Affairs, 2019), 85–111.

[11] Gruber and Johnson, 8.

[12] Julian Baird Gewirtz, *Unlikely Partners: Chinese Reformers, Western Economists, and the Making of Global China* (Cambridge: Harvard University Press, 2017), 33.

[13] Richard Baldwin has written two books on the subject: *The Great Convergence: Information Technology and the New Globalization* (Cambridge: Belknap, 2016) and *The Globotics Upheaval: Globalization, Robotics, and the Future of Work* (New York: Oxford University Press, 2019).

[14] Stewart Paterson, *China, Trade and Power: Why the West's Economic Engagement Has Failed* (London Publishing Partnership, 2018), 42.

[15] Dan Breznitz and Michael Murphee, *Run of the Red Queen* (New Haven: Yale University Press, 2011).

[16] U.S. Library of Congress, Congressional Research Service, *U.S. Manufacturing in International Perspective*, by Mark Levinson, R42135 (2018), 3.

[17] Paterson, *China, Trade and Power*, 3.

[18] Michael Enright, *Developing China: The Remarkable Impact of Foreign Direct Investment* (Abingdon: Routledge, 2017), 3.

[19] Baldwin, *The Globotics Upheaval*, 65–68.

[20] Paterson, *China, Trade and Power*, 85–86.

National Developmentalism: From Forgotten Tradition to New Consensus

MICHAEL LIND MARCH 05, 2019

In response to the rise of "populism," members of the Washington establishment have adopted a reassuring way to frame the question of America's proper relationship to the world.[1] As they see it, Americans are divided into two camps—open or closed, globalist or nationalist, interventionist or protectionist. In this framing, the closed, nationalist, and protectionist camp voted for Trump, and the open, globalist, and interventionist group for Clinton. From this basic dichotomy about America's role in the world, views about America's role in the global economy can be deduced.

If only it were that simple. In reality, five distinct schools with different views of how America should fit into the world economy and govern its own can be identified: global libertarianism, progressive localism, national protectionism, global neoliberalism, and national developmentalism. Each of these contemporary schools of American political economy has its own vision of the good society, expressed in its own preferred combination of policies toward firms, trade, and immigration.

Of the five schools of American political economy, three of them—global libertarianism, progressive localism, and national protectionism—are so extreme in their rejection of existing arrangements that they are unlikely to attain the level of dominance that global neoliberalism has enjoyed since the end of the Cold War. Each of these schools has influenced policy, however, as libertarianism did beginning in the late 1970s with the emergence of the flawed model of supply-side economics, and as progressive localism appears to be influencing the Democratic presidential race today.

Of the five schools of American political economy, national developmentalism is the school which should guide American economic policy at home and abroad. As described below, it holds that the key role of the state is to foster industrial and economic development and that international economic policy, including immigration policy, should be crafted to maximize U.S. economic competitiveness.

Libertarian Dreams and Dystopias

The moral and social vision that informs libertarianism is a radical theory of cosmopolitan individualism. Individuals should be free to engage in contractual relations with one another, without being restricted by political boundaries. Libertarians have long been divided between "anarchists" who want no states at all and "minarchists" who believe in a minimal, "night-watchman" state limited to keeping the peace and defending private property and commercial contracts.

When it comes to firm size, libertarians naturally take a laissez-faire attitude. They tend to oppose antitrust law as an interference in transactions among consenting adults. At the same time, they oppose government aid to businesses, large or small, which they denounce as "crony capitalism."

For all libertarians, national borders are an infringement on liberty, as are tariffs, fiat currency, and, of course, anything that smacks of industrial policy. They favor unlimited immigration and free trade—including unilateral free trade with countries whose governments protect and subsidize their own national industries. The libertarian answer to the danger that combining open-borders immigration policy with a national welfare state could turn a country into a welfare magnet is simple: abolish the national welfare state for everyone, natives and immigrants alike!

In the early twentieth century the founding fathers of contemporary libertarianism, like Friedrich von Hayek, Ludwig von Mises, and Lionel Robbins, welcomed the worldwide equalization of wages by offshoring and mass immigration, including a downward movement in developed nations. As the British economist Lionel Robbins wrote 1934, in the post-national world market a capitalist would be able to "close down his works in Lancashire to commence operations in Japan," where labor was cheaper.[2] Mises predicted that "English and German workers may have to descend to the lowly standard of life of the Hindus and coolies to compete with them."[3] More recently, libertarians see all immigration—skilled and unskilled—and all trade and offshoring, as unalloyed goods, with the more the better, maximizing individual freedom.[4]

Something like the vision of Mises and his allies was realized briefly in the years following the fall of the Berlin Wall. With the establishment of the World Trade Organization (WTO) in 1995 and the accession of China to it in 2001, global trade dramatically expanded. U.S. administrations of both parties went full out to promote it. In the early 2000s, the Bush administration's Commerce Department went so far as to hold workshops to assist U.S. corporations to move work to China, under the mistaken view that this would help them, and therefore the U.S. economy, become more competitive. Liberalized immigration policies meant that the number of immigrants in the United States rose dramatically from around fourteen million in 1980 to around forty-five million today, a rate of growth unprecedented in American history.[5]

For libertarians, borderless globalism was to be combined with a limited state, with most government responsibilities devolved to U.S. states, which because of interstate competition for jobs and the need to offer the best business climate, would oversee limited government functions. The political result of the trade and immigration policies favored by libertarians and neoliberals alike has been the populist backlash that has benefited Donald Trump and other nationalists and populists in Europe.

The Enduring Appeal of Progressive Localism

The philosophical roots of the rival school of progressive localism run deep in the tradition of Jeffersonian agrarianism in American politics. This tradition of "yeoman republicanism" holds that only an economy in which most citizens are self-reliant small producers like family farmers or artisans can be a democratic republic. The evolution of mass production industries and the conversion of most Americans into urban and suburban wage earners rendered this tradition anachronistic a century ago. Nevertheless, throughout the last century, progressive localists have constituted a vocal minority, denouncing chain stores like A&P in the 1920s and 1930s, Walmart in the late twentieth century, and Amazon today. For them, large, unregulated corporations are fundamentally coercive, dehumanizing, and antidemocratic.

Economic crises often inspire progressive localists with the hope—inevitably thwarted—that Americans will finally see the light and abandon big firms and soulless suburban life in order to return either to authentic small towns or to inner-city, Jane Jacobs–like neighborhood life and a small-producer economy. The shock of the Great Recession may explain the latest revival of progressive localism, in the form of what we term in *Big Is Beautiful: Debunking the Myth of Big Business* (2018) the neo-Brandeisian revival. Supreme Court justice Louis Brandeis rose to fame on his repudiation of industrialization and the rise of large, multidivisional corporations. The fact that this most recent crisis was caused by Wall Street, abetted by an elite class of economists and regulators that denied reality and turned a blind eye to financial abuse (which was eminently preventable), made the progressive reaction only that much more intense.

On the question of firm size, the school of progressive localism is clear: big anything—big aviation, big broadband, big pharma, now big tech, and of course big oil and big tobacco—is to be reviled. Progressive localists seek to create an alternate economy, predominantly made up of small firms. Where economies of scale make large enterprises necessary, progressive localists would prefer that they be heavily regulated "utilities" or government-owned enterprises. And for innovation industries like biopharmaceuticals, progressive localists would like government to assume the lead role in drug development. Agreeing with the economist E. F. Schumacher that "small is beautiful," many progressive localists, including Robert Reich and Senator Elizabeth Warren, have called for breaking up big banks, big tech companies, and big firms in general. Not only will their profits supposedly shrink, with the resulting output going to working people, but they will have little or no role in politics and policy.

The latest flavor of progressive localism, misleadingly called "democratic socialism," builds on this but goes even further, calling for worker-controlled companies and government job provision. At first glance, the "Green New Deal" championed by Representative Alexandria Ocasio-Cortez might seem to belong to a different school, with its call for a crash national mobilization along the lines of World War II to radically restructure the U.S. economy in order to combat climate change. But the end result of the proposed restructuring is the familiar utopia of progressive localism: a decentralized economy of small, owner-operated firms and local co-ops, powered by a distributed, highly localized renewable energy system based on solar panels and windmills, with passenger rail and other mass transit connecting pedestrian-friendly, village-like neighborhoods.

Inspired by the motto "Think global, act local," progressive localists want to return to a world in which most goods and services are produced nearby, ideally by small businesses, whose interests they see as aligned with workers, not big corporations. This implies economic autarky for nations, and even for local regions within a nation—every region will have its own local broadband providers, its own local credit unions, and its own local farms.

Progressive localists tend to oppose globalization because it is dominated by transnational firms with supply chains in multiple countries. They are willing to sacrifice the low prices that efficient, large, dynamic national and global corporations provide because they reject consumerism as a moral vice and a blight on the global environment. If locally grown, GMO-free arugula costs more, so be it; it's good for the masses. They also largely reject the notion that economies compete because accepting that premise means that government power to regulate and tax business must be constrained for the sake of an internationally competitive business climate, which leads to a destructive "race to the bottom."

As a result, for them, economic development is based largely on redistribution from the rich to the rest, including a higher minimum wage, universal health care, and more public spending on social services. By embracing a hardline Keynesianism that holds that consumer spending, not supply-side factors like R&D and entrepreneurship, is the major or sole driver of growth, they justify redistribution as a growth agenda.

Like libertarians, progressive localists reject the idea that nation-states are economic units that compete with one another. For progressive localists and libertarians alike, the economic role of the government is mainly to enforce rules. But whereas libertarians have no problem with big firms defeating small rivals in fair marketplace competition, progressive localists, in the interest of the virtuous yeoman republic, want to rig markets in favor of small firms and against big firms by various means, including small business exemptions from laws and regulations and small business subsidies, and of course aggressive antitrust enforcement.

Most progressive localists also differ from libertarians in favoring the large-scale redistribution of income from the rich to the rest of society, by means of entitlements (including free college tuition) or cash subsidies like a universal basic income. Being dependent on checks from the government might seem to be at odds with the Jeffersonian ideal of the self-reliant small farmer or artisan or shop-owner. But in *Agrarian Justice* (1797) Thomas Paine squared the circle of left-Jeffersonianism by arguing that wealth derived from unearned rents like those extracted from the ownership of land belongs to everyone and should be redistributed in the form of monetary payments to all citizens. For progressive localists, wealth derived from both rents and capital gains is unearned and therefore belongs to the people.

On immigration, progressive localists have more in common with global libertarians than with the Democratic Party of a generation ago. Until the turn of the twenty-first century, the Democratic Party, dominated by private-sector labor unions, favored more restrictions on immigration than Republicans, who represented business interests seeking cheap labor. In recent years, however, progressives have adopted a no-enforcement, open-borders immigration policy indistinguishable from that of libertarians. For them, immigrants have common economic interests with American workers, as both are united in their struggle with global capital. These progressives also believe that promoting demographic diversity is a moral value in its own right, just as libertarians believe that maximizing individual liberty is an end in itself.

The Return of National Protectionism

The third school of American political economy is national protectionism. Members of this school were largely ignored by the American elite until Donald Trump tapped into their anger.

National protectionism comes in conservative and left-wing versions. Conservative national protectionism, of which Trump is the leader, is a compound of two schools of thought—national protectionism and libertarianism: the former for international economic policy, and the latter for domestic policy.

For national protectionists of the Right, America can be great again by resurrecting the 1920s: immigration restrictions, high tariffs, and a very small federal government—with limited taxes and a hollowed-out state (a "shallow" rather than "deep state")—with the exception of national defense.

Left-wing national protectionism, meanwhile, is associated with the industrial unions of the afl-cio and their allies. They are close to the Trumpian view of the world when it comes to globalization, but support a more interventionist government, especially around things like investment in skills and infrastructure.

Unlike libertarians and progressive localists (and neoliberals), national protectionists believe that nations as well as firms and individuals compete in the global economy. And unlike progressive localists, who denounce large corporations as examples of what Brandeis called "the curse of bigness," conservative and liberal national protectionists alike have no objection to large, successful companies. Liberal national protectionists in particular tend to see big corporations as a largely progressive force—albeit one to be tamed by regulations—in part because these firms are more likely to pay higher wages and to be unionized.

National protectionists are less concerned about the size of corporations than about their loyalty. National protectionists support firms of any size as long as they are strongly identified with the United States. But they are suspicious of global multinationals that don't owe loyalty to the nation and, in turn, don't see a reason for U.S. policy to defend those companies' interests internationally.

In contrast to libertarians and neoliberals, national protectionists reject open borders in both immigration and trade policy. Their chief concern is the protection of American workers from low-wage foreign competition, both in the form of offshoring and immigration. Today's nationalist-populist rebellions on the right, including the election of Donald Trump and Brexit, are largely motivated by popular anger at policies promoting large-scale, low-skill immigration and the offshoring of manufacturing enabled by free trade regimes that did little or nothing to constrain unrepentant and systematic mercantilist economies like China.

In recognizing that nations as well as firms and individuals compete in global markets, national protectionists are more attuned to reality than libertarians and progressive localists. Their support for large, efficient firms in industries with increasing returns to scale, and their recognition that most Americans will continue to be wage earners at large firms, renders them immune to the nostalgia for Jeffersonian agrarian republicanism that defines progressive localism.

But national protectionism, Right or Left, has limited relevance to the challenges America faces in this century. Its adherents tend to be defensive rather than proactive, focused on preserving present-day jobs rather than expanding export markets for American businesses and workers in the industries of the future. Most of the growth in demand for goods, services, and intermediate inputs in this century will take place outside of America's borders, in Asia and Africa. And unless firms in America compete in those markets, their very existence is threatened.

Another challenge is to maintain American technological primacy in the deepening competition with China, a highly mercantilist state which is also a geopolitical rival. Competing with rivals like China and the EU for global market share, especially in advanced, technologically sophisticated industries, should be a priority, and it cannot be accomplished through cutting off all global supply chains, limiting trade, reducing high-skill immigration, and slashing the role of the state as an agent for development.

Trump owed his election to working-class voters in the Great Lakes region, where manufacturing industries were hit heavily by subsidized Chinese imports and offshoring in search of cheaper labor and government incentives abroad. These workers in some cases also feared competing in services jobs with low-wage immigrants. Trump's slogan "Make America Great Again" undoubtedly encourages in some of his supporters the hope for an economic restoration of the old-fashioned Midwestern factory economy and well-paying blue-collar jobs with limited labor competition.

This restoration, according to national protectionists, will be produced by more or less indiscriminate protectionism—potentially a return to the high-tariff import substitution strategy that the U.S. followed during its period of industrialization between the Civil War and World War II, coupled with immigration policies more like those that were in place from the 1920s to the 1960s. Trump himself seems inclined toward this view, given his insistence on tariffs rather than other instruments of trade and industrial promotion, and their application against U.S. allies like Canada and Mexico and the European Union as well as against mercantilist China.

The problem is that a crudely protectionist import substitution strategy and an indiscriminate severing of global supply chains that worked well for the U.S. as a developing nation in the nineteenth century does not serve either U.S. firms or U.S. workers well in the twenty-first century. In the nineteenth century, protectionism was a means to an end: the shielding of American infant industries from British and Western European competition, until they were strong enough to compete without government support. Today the challenges faced by the United States are different, however.

Indeed, Trump has much more in common with prewar Republicans like McKinley, Taft, and Coolidge than he does with post-Reagan Republicans, for while both embraced small government, at least rhetorically, Trump and the prewar Republicans saw tariffs as a key tool of national greatness. Both McKinley and Trump proudly called themselves "tariff men."[6] While McKinley's political support for tariffs and nationalism came from business, and Trump's comes from workers and small and midsize firms seeking a respite from foreign competition, both have the same focus. And like McKinley and his Republican counterparts of the time, Trump rejects a strong role for the national government in supporting an advanced, competitive economy. Trump proudly touts his tax cutting and deregulation prowess, while his budgets slash support for key national investments in building blocks like research and development, manufacturing support programs, infrastructure, and education and training.

The Rise and Fall of Global Neoliberalism

We are justified, then, in dismissing three of the five schools—libertarianism, progressive localism (and its new flavor democratic socialism), and national protectionism—as guides to U.S. public policy, on the basis of their political unrealism, their undeveloped and flawed agendas, or both. That leaves two rival schools of thought to dispute the future of American political economy: neoliberalism and national developmentalism. In the rest of this essay, we will compare and contrast their histories and views of economic growth, antitrust, trade, and immigration.

Neoliberalism is the consensus that was shared by Reagan, the Bushes, Clinton, and Obama, before Trump and Sanders dramatically broke with it in 2016. Among foreign policy experts and economic elites, global neoliberalism is the center-right and center-left consensus, uniting Clinton Democrats with Reagan Republicans.

Like libertarians, global neoliberals sing the praises of free trade and high levels of immigration, seeing globalization as a force almost totally for the good. Recognizing that liberalized cross-border flows of goods, capital, and labor can displace some workers or harm some regions, global neoliberals favor policies like retraining and relocation vouchers to help the "losers" of global integration with minimal interference in globalization itself. The neoliberal view tends to be a version of classroom Econ 101—trade and competition is among individuals and firms, not nations; free market–based competition is the norm; and all sides benefit from free exchange.

Neoliberals tend to minimize the problem posed by states like China which don't play by free market rules. In part this is because they believe that foreign mercantilism can be good for the U.S. economy; after all, if these nations are so misguided as to subsidize their exports, including through weakening their currency, American consumers benefit. In addition, they fear that acknowledging the problem of foreign mercantilism will only awaken the slumbering beast of popular protectionism in America. In fact it was this rigid denial, coupled with a lack of effective action, that woke the beast in 2016.

Moreover, they believe that any problems in the U.S. economy cannot result from trade, which by definition is welfare maximizing, and therefore must result from domestic failures, especially insufficient human capital. If only American workers were better, all our problems would be solved. As a result, the solution is almost always more education and training for the losers so they too can join the globalized knowledge class—a program which is less a realistic policy proposal than a fantasy in which everyone is above average.

The neoliberal ideal shared by Reagan and Bush Republicans and Clinton and Obama Democrats is better described as liberal hegemony under U.S. auspices, instead of the truly post-national world of libertarian fantasy. The theory of liberal hegemony, developed by political scientists and shared by much of the U.S. foreign policy establishment, holds that deep economic integration among sovereign states is ideal, but unlikely except in conditions of international peace. International peace, in turn, is best secured by a hegemon—a great power whose military strength is so preponderant that no other power or alliance in the global system dares to challenge it.

During the Cold War, the American-led alliance was a hegemonic alliance, not a traditional alliance of equals. The countries in the Western alliance with the two largest economies after the United States, Japan and West Germany, agreed to be demilitarized American protectorates. Post-1945 Japan and West Germany, as well as other protectorates like South Korea and Taiwan, were encouraged—and actively assisted with U.S. foreign aid—to develop robust, advanced civilian industrial production, including in vanguard industries, that ultimately came to threaten U.S. industries and jobs. When these countries, in different ways, pursued export promotion policies that harmed U.S. manufacturers, the U.S. government looked the other way (or in some cases, provided active support for these policies), in the interest of a unified alliance against the Soviet Union.

Following the Cold War, the United States sought to extend this system worldwide to create a Pax Americana and lock it in through a system of rules enforced by the World Trade Organization. In the Pax Americana, the United States would be the only military superpower. As the global hegemon, it would provide economic public goods in addition to unreciprocated military protection. America would enjoy the benefits of holding the world's reserve currency, the dollar, at the expense of American exporters, including manufacturers, which were harmed by a strong dollar. The U.S. government would devote a significant share of its R&D budget to defense technology, while allowing other nations to focus their government R&D on advancing commercial technologies. Most important, the United States would commit itself to keeping its consumer markets open to the exports of other countries, even if they used nontariff barriers, currency manipulation, and other means to protect their home markets from U.S. exports. According to neoliberal ideology, the United States was the biggest beneficiary of the Pax Americana, and it was therefore reasonable for it to pay a disproportionate share of the costs, not only in terms of lost export markets or shrunken domestic production, but also in terms of blood and treasure spent defending other nations rather than America itself.

This is why neoliberals go to such great lengths to deny the truth that a significant share of U.S. manufacturing job loss in the 2000s and early 2010s was due to global competition and trade, not productivity growth as they claim.[7] If Americans understood that truth, which many Trump voters did, neoliberals fear that the entire Pax Americana and free trade project would be in doubt. But Trump gave voice to all this discontent. And to advance the national protectionist agenda, he has worked to reduce America's foreign involvement in defense, including pressing allies to pay more, questioned America's commitment to the WTO and the global trading system, and argued against a strong dollar. Indeed, Trump constantly repeats the refrain that other nations have played America for suckers, and that these nations were the big beneficiaries of the Pax Americana.

The Pax Americana bloc in the Cold War was looser than a federal nation-state but much more integrated than a traditional arm's-length alliance of sovereign countries. A division of labor emerged within the American-led bloc, with Germany, Japan, and the Little Tigers (Singapore, South Korea, and Taiwan) focused on manufacturing while the United States viewed its "comparative advantage" as high-end service industries like finance, software, insurance, and entertainment. The declining share of domestic manufacturing, coupled with a growing U.S. dependence on foreign manufacturing, was not a security threat because of the military dependence of Germany and the East Asian allies on Washington. This is why the head of a leading international policy think tank in Washington, when asked how much manufacturing America could safely lose, felt confident to reply: "all of it."

Following the Cold War, the United States offered membership in the Pax Americana bloc to China on terms similar to those accepted by Japan, South Korea, Taiwan, and the now unified Germany. In return for accepting the legitimacy of U.S. hegemony in East Asia and the world, and not challenging U.S. military primacy, China, often in partnership with U.S., European, or East Asian firms, would be allowed to engage in mostly low-end manufacturing for the U.S. market. Not only was low-end manufacturing (and the workers who worked in it and communities where it was located) seen as expendable and a relic of a bygone "Norma Rae" era, it was assumed that America was so superior at innovation that it could always stay a rung or two ahead, even if China moved up the ladder of the value chain. Besides, there was no way, the neoliberal Washington Consensus held, that any nation could be innovative unless it was like the United States, and clearly China was not. So when that gap began to close, and China began to make products more advanced than Happy Meal toys, it was not because China was innovative—a view that most Washington elites continue to hold—it was because American firms were not trying hard enough and because we had systemic domestic policy failures, with K-12 failures always being at the top of the list. Larry Summers spoke for most global neoliberals when he wrote that anyone who worries that unfair Chinese practices, including intellectual property theft and coerced technology transfer, might harm the United States is an "alarmist," and that any economic solutions had to start with K-12 reform.[8] And finally, it was believed that a growing middle class in China would bring about the gradual liberalization and democratization of the Chinese regime. They would become like Japan.

One by one, the premises of this American strategy of incorporating China into the Pax Americana have been revealed to be illusions and their unwinding has threatened the entire intellectual edifice. Unlike America's NATO and East Asian allies, China has not been content to be an American protectorate but has rapidly modernized its military to directly challenge U.S. primacy in East Asia. Starting with its 2006 "Medium- and Long-Term Plan for Science and Technology" (along with its companion plan for defense technology) and more recently with its "Made in China 2025" plan, the regime signaled its determination to not only catch up to the United States in terms of innovation but to dominate high-value-added, innovation-based industries that the global neoliberals assumed were naturally America's. And, in recent decades, the Chinese have made enormous progress toward these goals.[9] But instead of evolving into a liberal democracy with a free market economy, China has become increasingly authoritarian and state-capitalist under Xi Jinping.

The evolution—or devolution—of China has plunged the trans-Atlantic neoliberal establishment into confusion in domestic as well as foreign policy. The premise of neoliberal domestic policy, after all, has been the idea that the United States could shed most manufacturing to other countries, mostly in East Asia, and specialize in high-end services and a few high-tech sectors like aviation, biotech, semiconductors, and software. Many if not most Americans would work in the advanced "knowledge economy," sharing the lucrative intellectual property rents that flowed in, along with cheap manufactured imports from abroad and low-priced domestic services provided by low-wage immigrants. But it is one thing to lose significant industrial production to military satellites like Germany and Japan, and quite another to do so to a potential adversary and competitor for geopolitical supremacy. And, of course, China is now challenging the United States for supremacy in aviation, biotech, semiconductors, and other advanced industries.

Moreover, American elites were willing and able to at least mount a modestly effective challenge to Japan and other protectorates to limit the most egregious components of their mercantilist tool kit, as Reagan did with the voluntary trade restraint agreements with Japan for semiconductors and autos, and with the Plaza Accord that forced key nations to raise the value of their currencies. China, it turns out, is not so easy to sway. Furthermore, the intellectual property (IP) rents that Silicon Valley entrepreneurs and investors were supposed to get and share with a growing American middle class were significantly reduced because China decided it was easier and more lucrative to steal U.S. IP than to pay for it.

As we have seen, the theory of liberal hegemony itself holds that a single hegemonic power is necessary to have a deeply integrated and rules-based transnational market. Military rivalries and commercial rivalries can only be separated in a system in which one power polices the world while the rest compete in a global market. But if unipolarity gives way to a bipolar or multipolar world, then national military policy and national economic policy can no longer be separated. In a world of great-power rivalries, military policy, trade policy, and industrial policy must be coordinated as part of a single national strategy, something libertarians see as Soviet-style planning, something neoliberals see as inappropriate industrial policy, and something progressive localists see as crony capitalism.

For neoliberals and libertarians, in particular, any attempt in this direction must be quickly and forcefully rebutted. We have seen this in the attempts to discipline Senator Marco Rubio after he had the temerity to release an important and groundbreaking report, "Made in China 2025 and the Future of American Industry." The report argued that not only had the global neoliberals turned a blind eye to the China challenge, it called for a strategic national industrial strategy in response. The attack was swift. Case in point, an op-ed that the *New York Times* must have taken great delight in publishing, written by George Mason University research fellow Veronique de Rugy, framed Rubio's sensible policy interventions as some kind of Soviet-style Gosplan initiative, stating that America had only two choices: "China's command-and-control playbook" and "markets."[10]

No, as Rubio correctly pointed out, we do not have to choose between hands-off neoliberalism and state socialism. This is the lesson of the fifth school of American political economy, the one to which we subscribe: the tradition of national developmentalism.

Rediscovering National Developmentalism

National developmentalism rejects the moral vision of libertarianism—a global market of individuals with no significant local or national attachments—as alien to human nature. It also rejects the moral vision of progressive localism, with its self-reliant yeoman farmers and artisans and shopkeepers, as anachronistic in the industrial era. Local communities are important, but in the modern world military security and economic efficiency can be secured only by national economies anchored by large corporations.

Unlike global neoliberals, libertarians, and progressive localists, but like national protectionists, national developmentalists see national economies in direct competition with one another for high-value-added production and the well-paid jobs it makes possible. This is of central importance because most citizens in developed nation-states are and will remain wage earners. Unlike in Marxist theory, in national developmentalist thought a strong nation-state can moderate conflicts among workers and capitalists, in the interest of national economic strategy with military security and widespread prosperity as its objectives.

The national developmentalist school views the big firms that can marshal the scale needed to compete as critical national resources. For this reason, the national developmentalist school extends a cautious welcome to efficient global oligopolies, American and foreign, as long as they are genuinely private corporations and not de facto agencies of foreign governments.

Unlike progressive localists and national protectionists, national developmentalists see deeper global economic integration as beneficial in many ways—but only if the U.S. federal government works to obtain maximum benefits for American workers and regions. To maximize foreign export markets for high-value-added U.S. exports, there must be an active developmental state in America that partners with companies both large and small to help them innovate, boost productivity, export, and compete globally. Unlike neoliberals who would not object if all U.S. manufacturing were offshored or destroyed by foreign competition, or national protectionists and progressive localists who reflexively oppose any offshoring of supply chains, national developmentalists need not object to offshoring some tasks and supply chains to other countries while retaining high-value-added, technology-intensive production in sectors with global markets like aerospace, automotive, biotechnology, machine tools, semiconductors, and software. While only a modest share of workers will be employed in these sectors, they have a multiplier effect that raises productivity and real wages throughout the rest of the national economy. The idea that a modern economy can forfeit manufacturing to its rivals and specialize in finance, entertainment, tourism, and natural resource industries like farming is a neoliberal delusion.

For neoliberals, as for libertarians, the government should be an umpire, not taking sides in the competition for global market share among national and foreign firms and countries. (Indeed, most neoliberals reject the very notion that national economies compete.) For progressive localists, the government should be a biased bully, punishing big, successful firms and favoring small businesses. For national protectionists, the government should be a caretaker, preserving existing industries and jobs.

For developmentalists, however, government should be a coach, helping U.S. firms compete globally, innovate, and boost productivity, while attracting foreign high-value-added production. This includes protecting firms in the United States from unfair foreign competition and actively promoting research, innovation, and investment in strategic sectors. For national developmentalists, with their eyes on global market share in a world in which nations as well as firms compete, the ideal government is the developmental state.

"The developmental state" is the name given by scholars like Chalmers Johnson, Alice Amsden, and Robert Wade to governments which engage in a coordinated national economic strategy. Although the term was first used in the study of late twentieth-century Asian countries like Japan, South Korea, and Taiwan, developmental states are as old as European civilization. As Erik Reinert and other historians have shown, some version of developmentalism has been practiced by Renaissance city-states and early modern European mercantilist empires like those of Britain and France.

The major capitalist nations of our time—the United States, Germany, and Japan—were all developmental states during the period of their industrialization, and Germany and Japan never abandoned it (although both have modified it as their economies have evolved). Inspired by Treasury secretary Alexander Hamilton's *Report on Manufactures* (1791), the "American School" of economic nationalism was later embodied in Henry Clay's American System, which united tariff protection for infant industries with federal support for national infrastructure projects like canals and railroads. The Hamiltonian approach also included a coherent national banking system, in the form of the First and Second Banks of the United States and the national banking system created during the Civil War, coupled with the establishment of a system of land-grant technical colleges. On top of that was military funding to develop not just weapons, but new technologies and production systems, like the development of interchangeable parts at the Springfield Armory in the 1820s.

The intellectual tradition of national developmentalism is deep and influential. The German-American economic thinker Friedrich List spread the developmentalist ideas of the American system to Germany and the rest of Europe, influencing the late nineteenth-century German historical school of economics, which in turn fertilized American institutional economics in the early twentieth century (e.g., Thorstein Veblen and John Commons). Austrian-American economist Joseph Schumpeter's work on innovation also aligns with this tradition, which in the late twentieth century experienced a renaissance under the names of "evolutionary economics" (Richard Nelson) and "innovation economics" (Robert D. Atkinson).

As the incorporation of the term "development" in the name suggests, the national developmentalist school rejects a one-size-fits-all approach to economic policy, believing that policies should differ based on levels of technology and other circumstances. This is counter to the neoliberal view, as expressed by Larry Summers, that "the laws of economics are like the laws of engineering. One set of laws works everywhere," and presumably at all times.[11] Just make sure the market can let the supply and demand curves meet in blissful equilibria, and all will be well everywhere and always.

From the perspective of developmentalism, the widely repeated statement "almost all economists agree that free trade always benefits both sides" makes no sense. Besides ignoring the fact that many of America's trading partners practice anything but free trade, the reality is that the same country (such as the United States) may benefit from infant industry protectionism when it is trying to catch up with more advanced economies, and then, at a later stage, may benefit from liberalized trade when its industries are competitive enough to vie for foreign market share. To be indifferent to the national sectoral mix—to believe that there is no difference between "computer chips and potato chips," in the phrase attributed to Michael Boskin of George H. W. Bush's Council of Economic Advisers—is antithetical to the national developmentalist school. And even Adam Smith recognized that "defense is more important than opulence"—that is, freedom of trade, investment, and the movement of people must be sacrificed when necessary to national security.

The idea that states and alliances are and should be legitimate actors in markets, not simply an umpire enforcing rules for interactions among self-interested individuals in a free global market, distinguishes national developmentalism from both global neoliberalism and libertarianism. It is impossible, both politically and practically, to disentangle states from markets. And, therefore, when neoliberals want the U.S. government to be disentangled, other than providing support for human capital, the result is not only one-sided deindustrialization but lower rates of global innovation and productivity growth.

The Nature of Economic Growth, Innovation, and Competition

Another point of contention is the issue of what causes growth. Both classical economics and its successor, neoclassical economics (the formal economic theory adopted by global neoliberals), assume that competitive markets naturally tend toward equilibrium and that the natural rate of growth is fixed and beyond the influence of policy. Because the economy tends toward equilibrium in the neoclassical view, the main task of economic policy is simply to reduce artificial barriers and impediments to market equilibrium, particularly by ensuring that prices are aligned with costs. Any actions beyond that risk distorting equilibrium, bringing about suboptimal economic outcomes. But if the natural state of economies is equilibrium, where does technological progress come from? Joseph Schumpeter's answer was "creative destruction"—by which he meant not the mundane taking of market share of some firms by others but the destruction of entire firms and industries by new firms and industries—the replacement of typewriters by PCs and of landlines by cell phones, for example.

In fact, in a world of rapid technological change where innovation drives dynamism—clearly a description of the U.S. economy since the Republic was established—market equilibrium is almost never achieved. The reason is that some new product, service, or business model, or new market, is always emerging, disrupting existing products, services, business models, and markets. As Eric Beinhocker, author of *The Origin of Wealth* states, "Equilibrium systems by definition are in a state of rest, while growth implies change and dynamism."[12]

Moreover, creative destruction, Schumpeter and his intellectual disciples have argued, is not continuous and incremental, but takes the form of successive waves of technological innovation or "techno-economic paradigms," each based on one or a few "general purpose technologies" like the steam engine, steel, the electric motor, the internal combustion engine, electronics, and the silicon chip.[13] Instead of a placid landscape characterized by equilibrium, the economic world is constantly being reshaped unexpectedly by exploding volcanos of technological innovation and diffusion, all of which the state has enormous influence over.

In addition to rejecting the idea of market equilibrium—and by extension a minimalist role for government lest it lead to perturbations of such a wonderful condition—developmentalism rejects the idea that hypercompetitive markets are the best for economic progress. On the contrary, in a purely competitive market, profits are so close to the cost of capital that there is little to be spent on the R&D needed to power innovation. Following Schumpeter, who argued that corporate research labs had replaced individual inventors in the age of "trustified capitalism," the late William Baumol argued that what really has driven technological innovation in the modern era has been oligopolistic competition between big firms with deep pockets and hefty R&D budgets. The firms compete not only to sell similar products at lower prices but also to create entirely new product lines which they can hope to dominate, at least for a while, before they are disrupted.

This analysis has implications for antitrust and competition policy. According to progressive localist anti-monopolists, corporate concentration and even business scale itself is a danger. In contrast, according to the libertarian school of antitrust associated with the University of Chicago, even near monopolies are not a problem, because a rival can always enter a sector to compete with the incumbent.

Both of these schools are wrong, from a national developmentalist, Schumpeterian perspective. The libertarians get it wrong because, while firms can and do get disrupted, many firms, particularly in technologically stagnant sectors, do not. On the other hand, what anti-monopolists regard as inherently bad—pricing power by oligopolies or monopolies—may be good, if it results from an innovative firm's temporarily dominant market share and if the innovator uses a lion's share of the profits to invest in the next round of innovation. In time, the innovation may become commoditized and prices may fall. But as long as the firm recycles its temporary innovation rents into R&D, something best done by large firms with market power, the public interest in technological progress is served.

Unlike product and process R&D, the fruits of early-stage and precompetitive scientific and technological research cannot be hoarded by firms to compensate them for research costs, so these functions are best provided by government and universities. Together, government, universities, large firms, and small start-ups capable of scaling up rapidly form the innovation ecosystem which is the basis for national success in the modern era. And yet the United States, under the influence of both global neoliberals and now national protectionists, has let federal support for R&D (as a share of GDP) drop to levels last seen prior to the wake-up call of Sputnik.[14] And both schools have made it virtually impossible to pass robust national innovation support policies in Congress.

The first four schools have little to say about technological innovation and the productivity increases that it makes possible. Progressive localists, including the self-proclaimed democratic socialists, distrust innovation and productivity because of their effects on the small firms they idealize and the workers whom they seek to protect from any and all disruptions. Besides, they focus on redistributing of the gains from growth, not the actual sources of long-term economic growth which they take for granted. For their part, national protectionists tend to ignore innovation altogether and think of trade as a zero-sum competition for traditional manufacturing, agricultural, and natural resource producers.

Neoliberals and libertarians assume that innovation is inevitable—or as Robert Solow once said, "manna from heaven"—and that government plays little role, especially compared to private entrepreneurs. Moreover, their growth models perversely assume that, in the words of former Clinton economic advisor Alan Blinder, "Nothing—repeat, nothing—that economists know about growth gives us a recipe for adding a percentage point or more to the nation's growth rate on a sustained basis. Much as we might wish otherwise, it just isn't so." Just don't mess with allocation efficiency, they argue; that's the best we can hope for.

For the school of national developmentalism, however, technology-driven productivity growth should be the primary objective of national economic policy. Moreover, from the perspective of the American developmentalist school, the productivity that policy-makers should want to maximize is the relative productivity of their own national economy, not the absolute well-being of the global economy. If multinational corporations were to transfer all high-value-added activities from the United States to other countries, leaving America with only low-value-added industries like tourism and wastepaper exports, many American consumers and the world as a whole might conceivably be better off by some abstract measures. But policymakers and economists should view a country's residents not just as consumers but also producers. This is something which the national developmentalist school shares with progressive localists and national protectionists, but not with global neoliberals and libertarians.

Should dynamic, competitive oligopolies in industries with increasing returns like manufacturing and software be global, or should they be "national champions"? In other words, does the United States have a stake in ensuring that a significant share of its high-value-added goods be produced domestically? As long as it appeared that the future would see a global free market under the protection of the U.S. military, it was reasonable to speculate about the emergence of truly global corporations—detached from any particular country.

To date, however, most so-called global corporations retain distinct national identities. Of the top ten multinationals by foreign assets in 2016, three were based in the United States (Chevron, General Electric, Exxon Mobil), two in the United Kingdom (the oil companies Royal Dutch Shell and BP), two in Japan (Toyota, Softbank), and one apiece in Germany (Volkswagen), France (Total), and Belgium (Anheuser Busch Inbev).[15] In the United States, foreign-born CEOs in 2017 accounted for only seventy-three, or 14.6 percent, of the top five hundred Fortune 500 CEOs. As of 2014, international revenue made up 37 percent of total revenue for S&P 500 firms, but the share of directors who were foreign nationals was only 7.2 percent. According to unctad, the typical large multinational has about 40 percent of its sales in its national home market.

In any event, the rise of China, with its state-owned enterprises (SOEs), may settle the question in favor of national champions or, in the case of trading blocs like the EU, bloc champions. We see this in the recent case in Europe where rail companies Alstom (French) and Siemens (German) sought to merge to better compete with the Chinese national, state-owned champion, the Chinese Railway Construction Corporation (CRCC).

In 2004, the Chinese Communist Party was not content to seek economic equilibrium; it sought global dominance in high-value-added industries, in this case high-speed rail cars and systems. China's State Council developed a railway strategy based on requiring, in violation of World Trade Organization rules, foreign rail companies to enter into joint ventures and transfer technology as a condition of market access. Given that China was building the world's largest high-speed rail system, no foreign provider could afford to sit out. The plan, coupled with massive state subsidies, paid off as Chinese producers rapidly gained market share. By 2016, CRCC had over two-thirds of global deliveries, taking significant market share away from prior market leaders Alstom, Bombardier, and Siemens. In fact, CRCC has a larger global market share than those three firms combined.[16] And while its sales were three times higher than Alstom's, it invested ten times the amount of R&D. But Europe, in the grip of global, neoliberal thinking, rejected this merger because it distorted allocation efficiency within the EU market.

In the United States, there is a revival of neo-Brandeisian, small-is-beautiful thinking, as evidenced by calls to break up U.S. national tech champions like Google, Apple, and Amazon. The United States, in the grips of such thinking, has gone down this path before, with disastrous consequences. Indeed, from the 1950s to the 1970s, U.S. antitrust authorities forced a slew of large companies like AT&T, RCA, IBM, GE, and Xerox to make available, for free or at a steep discount, key technologies. And in their zeal to limit market power and boost competition, U.S. antitrust enforcers succeeded, but often by boosting the fortunes of foreign companies like Hitachi, Panasonic, and Sony, while inflicting mortal damage on a number of U.S. advanced technology firms. In so doing, they seriously set back the U.S. economy, the effects of which continue to be felt to this day.

The AT&T case is illustrative. After inventing the transistor at its Bell Labs facility, the company faced pressure from antitrust regulators to make licenses to that technology widely available. And so, in 1952, AT&T licensed the technology for a small fee to thirty-five companies. On one level, that spurred innovation in some emerging companies, such as Texas Instruments and Fairchild Semiconductor, the predecessor of Intel. But because of government pressures, AT&T also licensed this technology to foreign companies, including Sony, and that was the key leg up Sony needed to propel itself to global leadership, taking market share from the leading U.S. consumer electronics firms.

The RCA case was even more damaging. Indeed, as historian John Steele Gordon has written, "Perhaps the best example of the harm antitrust has sometimes done to our economy is RCA." RCA was the Apple and Intel of its day, all rolled into one. Formed in 1919 under pressure from the U.S. Navy (because the dominant radio firm, American Marconi, was foreign-owned), RCA became the leader first in radio innovation, and then in television. Because RCA had a dominant share in the emerging color television industry, achieved by its own superior internal R&D, the Justice Department required RCA to provide its valuable patent portfolio to U.S. competitors at no cost. The company was, however, allowed to license the patents to foreign companies for the usual royalty arrangement. Because RCA had long relied on licensing revenue, it now was essentially forced to license its technology to foreign firms, in this case predominantly Japanese firms, which had been seeking to break into the color TV market, but heretofore with little success. As James Abegglen, a leading technology historian, has written, "RCA licenses made Japanese color television possible." Armed with this valuable technology, produced through years of research and engineering that cost RCA billions of dollars, the Japanese TV manufacturers, which were protected from foreign competition by the Japanese government (its antitrust authorities took national economic competitiveness seriously), soon took over the U.S. market, and an industry invented in America was destroyed. What was the real cost to consumers of this RCA "monopoly"? One study found that it raised the price of televisions by just 2.26 percent.[17]

Unfortunately, this kind of reverse industrial policy in the name of antitrust continues. In 2016, the FTC required that the semiconductor maker NXP divest its RF (radio frequency) power business as a condition for its $11.8 billion acquisition of U.S.-based Freescale Semiconductor Ltd. While this was done with a focus on the consumer, it opened up the business for acquisition by the Chinese investment company Jianguang Asset Management Co. Ltd. (which has financial backing from the Chinese government). Just like that, thanks to an action undertaken by the U.S. government, critical U.S. technology capabilities went to China.

This kind of "big is ugly," "competition is king" thinking might make sense in closed national markets where the loss of a major firm is not a problem, because other national firms will come in to take market share. But in a deeply integrated global economy, particularly one where other nations are engaged in predatory state capitalism, such an approach is economic suicide.

The recent behavior of the large companies themselves, however, has added fuel to antitrust movements. Pressured by Wall Street and under the sway of neoliberal thinking, major U.S. companies have increasingly preferred to boost their stock prices through financial engineering rather than reinvest profits in the next innovation, all the while publicly rejecting any duty they might have to work with the U.S. government or support any national interest. Although these companies usually do invest more than small businesses in R&D and future growth, they could be investing a lot more of their monopoly rents rather than myopically focusing on inflating returns for financial markets participants. Corporate research centers like Bell Labs, for example, have largely ceased to exist.

Toward a New Consensus

While America has five major schools of political economy, under U.S. plurality voting rules, which discourage third parties, they have to be shoehorned into only two major parties. At present the Democrats are divided among global neoliberals of the Clinton-Obama wing and progressive localists.

Until recently, center-right neoliberals dominated the Bush wing of the Republican Party, sharing a consensus on free trade and high immigration with the libertarian Right. With the election of Donald Trump, national protectionists who found leaders in Ross Perot and Patrick J. Buchanan in earlier decades have a president of their own and represent a substantial, if still weak, nationalist and populist wing of the GOP, augmented by support from disaffected left-wing national protectionists.

The school of national developmentalism we favor, distinct as it is from Trumpist national protectionism, is not even a wing of one party. Nevertheless, we believe that in time it can serve as the basis for a new consensus. Progressive localism and libertarianism are not just unrealistic, they are recipes for national decline. Neoliberalism presupposed a world in which the U.S. was the sole superpower, permitting the separation of national security concerns from economic policy—a world already shattered by the rise of China. As a response to the rise of a predatory China and a multipolar world order, national protectionism makes sense only in narrowly defensive terms. It is inferior to a more sophisticated national developmentalist strategy, which would use many instruments other than crude tariffs and which would seek to secure America's share of the markets of the future outside of U.S. borders.

Just as the revival of national protectionism represents a legitimate desire to find an alternative to the discredited neoliberalism that has been identified with both parties for the last generation, so does the revival of progressive localism. We share that desire, but the plausible alternative to mainstream neoliberalism is national developmentalism, not national protectionism or progressive localism.

Fortunately, the tradition of national developmentalism has deep roots in American soil. From the days of Alexander Hamilton's *Report on Manufactures*, through the Lincoln administration's investment in the transcontinental railroad and the A&M universities, to the Defense Department's role in fostering the computer revolution, American policymakers have successfully worked together with inventors, entrepreneurs, corporations, investors, and workers to promote technological innovation and create a more competitive and prosperous American economy. To succeed in a multipolar world in which nations as well as firms compete for global market shares, we do not need to choose among liberty, prosperity, and power. National developmentalism, if done right, can give us all three. Developmentalism is not alien to American tradition. It has always been an American tradition—and deserves to be the dominant strain once again.

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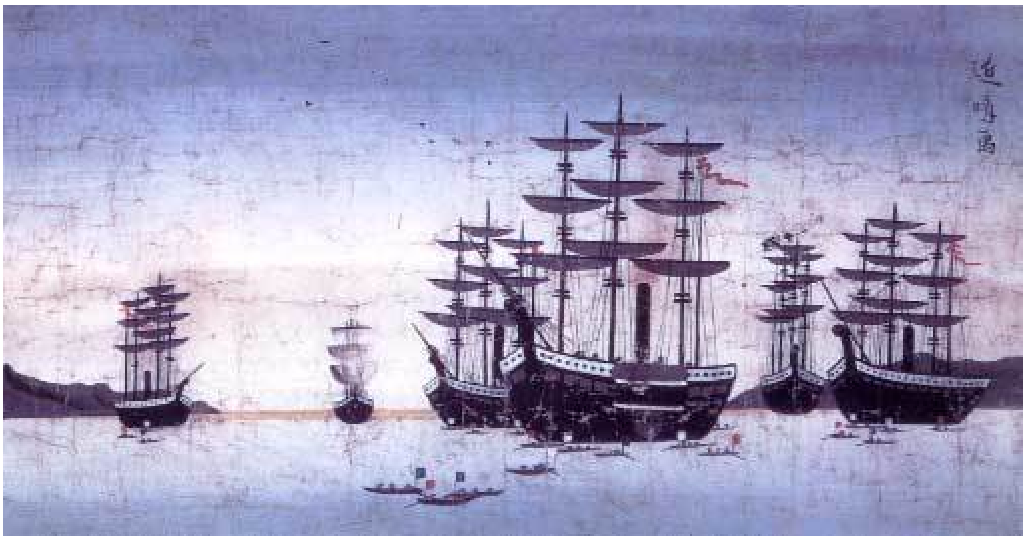
Nationalism's Dividends

LIAH GREENFELD



> Since initiating market reforms in 1978 . . . China has experienced rapid economic and social development. GDP growth has averaged nearly 10% a year—the fastest sustained expansion by a major economy in history—and more than 850 million people have lifted themselves out of poverty. . . . Although China's GDP growth has gradually slowed since 2012, as needed for a transition to more balanced and sustainable growth, it is still relatively high by current global standards.

There is nothing in the entire history of the world that compares to this Chinese achievement of last forty years, in terms of both the magnitude and rapidity of its impact on the condition of humanity. Between 1990 and 2005, China accounted for more than three-quarters of global poverty reduction. Anyone wishing to make the world better, and to reduce human suffering, should observe, study, and follow the example of the Chinese government.

How was China able to achieve such extraordinary economic success? It did so by encouraging the spread of *economic nationalism*.

Mainstream academic "theories" of nationalism, which still dominate comparative politics bibliographies in run-of-the-mill courses in the social sciences, affirm that nationalism arises out of the independently emerging *needs* of the modern economy. These "theories" are essentially Marxist in their inspiration and rely for evidence either on altogether fictional cases, such as "blue" people and the states of "Ruritania" and "Megalomania," or on cases carefully selected because they obligingly (but only apparently, as it happens) fit the proposed speculations. Such speculations do not take history into account and thus usually get it backwards. Contrary to these theories, history shows that the modern economy is the product—not the creator—of nationalism.

A modern economy is an economy systematically oriented toward growth instead of subsistence, unlike premodern economies. Since the nineteenth century, this systematic orientation toward growth has been referred to as "capitalism." But it could be observed well before it was so named—since the mid-sixteenth century, after the first society to develop national consciousness, England, began consciously pursuing economic nationalism. This modern economic orientation has led to the consistent (and dramatic, in comparison to all the previous centuries of human history) accumulation of wealth: first in nations that practiced it and then, because of their impact, the world as a whole. It contributed to the explosion of the human population, allowing a far greater percentage of infants born to survive than was possible in precapitalist ages. All this—economic growth, capitalism, rising standards of living, and the concomitant drop in infant mortality—was the result of nationalism.

The Nationalist Ethic and the Spirit of Capitalism

The sudden reorientation of economic activity from subsistence to growth requires an explanation. Until recently the only authority on the subject—the only one who, rather than taking this great transformation for granted, attempted to provide a carefully considered answer to it—was Max Weber. Weber pointed out that the subsistence orientation was rational, while the orientation to growth was not. In economies oriented to subsistence, people accumulated wealth to live, rather than living to accumulate wealth. As rational economic agents, they worked hard and saved until they felt they had enough for whatever condition they defined as comfortable. Upon reaching this state of comfort, they stopped and began to spend their savings. The great majority never accumulated much: in good times, there was just enough to survive; in the very best days, enough to raise more children.

Subsistence economies were repeatedly cut to size by the "Malthusian scissors." When they grew, people produced more children who survived to maturity, but the growing population consumed any surplus stock of the economy. As a result, the economy contracted, the population decreased, and the cycle began again.

So it went until the time when this orientation to subsistence was replaced by a very different one, in which ever increasing wealth became the end, and human lives the dedicated means to achieve it. This new orientation was fundamentally irrational, turning on its head the central principle of rational behavior—the pursuit of pleasure and avoidance of pain. As Weber stressed in *The Protestant Ethic and the Spirit of Capitalism* (1905):

> The *summum bonum* of [capitalism], the earning of more and more money, combined with the strict avoidance of all spontaneous enjoyment of life . . . is thought of so purely as an end in itself, that from the point of view of the happiness of, or utility to, the single individual, it appears entirely transcendental and absolutely irrational. . . . Economic acquisition is no longer subordinated to man as the means for the satisfaction of his material needs. This reversal of what we should call the natural relationship, so irrational from a naïve point of view, is evidently as definitively a leading principle of capitalism as it is foreign to all peoples not under capitalistic influence.

Such a reorientation to growth could only be accounted for by the emergence of a new system of values, one which provided a new rationale for the economic activity in which the majority of the population is engaged. The constant accumulation of wealth—“profit and ever-renewed profit”—had to become a means for achieving another supreme and self-sufficient good. Weber’s thesis was that this new supreme good was the certitude of salvation—of which the Protestant (Calvinist) dogma of predestination deprived its believers, making the search after it a psychological imperative.

This sensible explanation was confronted with contradictory evidence almost immediately, however. Weber's claim that Calvinism was the essential ethical system behind capitalism could not account for, among other difficulties, the singularity of the English case, the persistence of a subsistence orientation in the Calvinist Netherlands (where the prodigious economic growth of the so-called Dutch Golden Age from the mid-sixteenth to mid-seventeenth centuries was followed by an absolute decline of similar proportions), and the subsequent, rapid development of economies of sustained growth in several Catholic and Lutheran countries. While Weber's general reasoning that such a momentous change in economic motivations could only be explained by a new system of social values was doubtless correct, the specific set of attitudes he identified as the cause was wrong.

The new system of values that accounted for all these empirical anomalies, that inspired the reorientation of economic activity to growth, and which thus was "the spirit" that animated capitalism, was not Calvinism but *nationalism*. The new ethic did not represent a change in a religious worldview, but replaced it by a dramatically different, *secular* image of reality. This explanation, which has none of the problems facing Weber's claims, is nevertheless consistent with the logic of his argument.

The reason why nationalism encourages an orientation to growth is clear. Focused on this world (the experiential and empirical), which it endows with ultimate meaning, nationalism has at its core an image of social reality whose fundamental building blocks are nations—sovereign communities of essentially equal members. As I discussed in the Winter 2018 issue of *American Affairs*, this *democratic* consciousness emerged in England after the Wars of the Roses (1455–87), a protracted conflict that destroyed the

English feudal aristocracy and inaugurated a century of massive social mobility, mostly upward, inconceivable in the feudal/religious framework of the "society of orders." The new aristocracy that followed needed to rationalize this mobility in order to make it both understandable and legitimate. In its search for such a rationalization, it came to equate "people" (a word which previously referred to the general population but specifically to the lower, common strata or plebs) and "nation" (which at that time connoted the elite with the authority to decide on the religious, and therefore political, fate of the polity it represented). Defining the people of England as a nation symbolically elevated the entire population to the dignity of the elite and made all Englishmen equal, particularly in their ability and right to govern themselves. The inherent egalitarianism of nationalism—and the view that the community of living members is the bearer of supreme authority—necessarily elevates the status of every member, infusing personal identity with the dignity of the elite.

When the source of dignity lies in national membership, individual dignity becomes tightly associated with the dignity of the nation, measured by its international position or prestige. The national population in each case is strongly committed to maintaining the prestige of its nation; this makes nationalism an inherently competitive ideology. Nations compete in military strength, in scientific achievement, in sports, in ballet, in the quality of their chocolate, in morals and social justice. (For instance, our nation, among other things, claims to lead the world in respect for human rights, liberty, and equality.) But the competition is always for national dignity.

Such international competition necessarily becomes constant because prestige is a relative value: no matter how well one does, somebody else can always do better. When the economy becomes the focus of national competition, this results in an orientation toward the accumulation of ever-increasing wealth and continuous growth, that is, capitalism. This explains the persistence of what is, from the individual's point of view, an irrational behavior: the dedication of life to the accumulation of wealth, rather than the other way around. It is rational only in relation to its value context: the seemingly endless growth actually serves an end—that of increasing national prestige and, therefore, the dignity of the individual in economically competitive nations.

National prosperity, reflected in GDP or GDP per capita, may be used as a measure of economic superiority, but it is always superiority that is at stake, not prosperity as such. In the 1980s, there was panic in the United States over the loss of "competitiveness" vis-à-vis Japan, though that country's possible emergence as "Number 1" had not diminished American standards of living, even if it might have theoretically implied economic subordination. Today the same is happening vis-à-vis China: the competition is always for status—a relative rather than absolute good, and therefore a zero-sum game. Economic theorists, treating economic growth as natural and inherently rational, analyze how to achieve it. But they rarely ask questions about why it is important or what ends it serves. They do not take these issues into consideration, and for this reason—despite the enormous authority that they enjoy—they so often get things wrong, misleading and obfuscating instead of helping and clarifying.

Early Economic Nationalism

Nationalism emerged in England in the early sixteenth century. For about two centuries, England alone was a nation (even though the English saw nations everywhere around them). Thus it is not surprising that the English economy was the first to become competitive, to reorient itself toward growth. It was this nationalist motivation, not any material advantage it enjoyed, that propelled England to a preeminent economic position, which it maintained until the twentieth century. Before it embarked on its road to economic dominance, England enjoyed no such advantages. Its economy, compared to those of its neighbors like the Netherlands, France, or Spain, was backward and weak.

English economic nationalism prompted the development of multi-economy commerce (which would soon be called *international*). The importance of foreign trade dramatically increased within the economies it connected, weaving a complex web of interdependencies that we have since named "globalization." Economic nationalists set their sights on the expansion and control of foreign markets for the domestic—national—product, while protecting the domestic market from any dependence on foreign products.

The first act in this drama played out already in the sixteenth century, when the first national merchant company, the Merchant Adventurers of England, was incorporated in 1564. The company drove the Hanseatic League from England and virtually monopolized the European cloth market. In 1601, the company's secretary, John Wheeler, issued the first tractate in economic theory, *A Treatise of Commerce*. A manifesto of economic nationalism, it persuasively argued for the importance of domestic monopolies and protectionist policies vis-à-vis foreign traders for the power and prestige of the nation.

The merits of commerce in general, and the way it was carried on by the Company of Merchant Adventurers, Wheeler wrote, lay in the "benefits and commodities arising by [them]" to the English "State and Commonwealth." The preference for regulation over free trade was justified by "*Experience*[,] *the surest Doctor in the School of Man's life*," which taught that regulation does greater good to the commonwealth of England. Free—or, as he called it, "dispersed, straggling, and promiscuous"—trade, by contrast, at best benefited a few "private English." These profiteers, in their disorganized ways, made "vile the pricipallest commodity of the Realm," namely, cloth, "embasing that excellent Commodity [to] the discredit of our Nation." Unlike "private gain and lucre seekers," the Merchant Adventurers, in their various undertakings, were "moved in duty toward her Majesty and their Native Country." The organization of the Company, specifically, had the purpose of

> the Preservation of Amity, and the Intercourse between the Realm of England and their Neighbours and Allies, and the Preventing of Innovations, griefs, wrongs, and exactions contrary to the same . . . the great Vent, Advancement, and keeping in Estimation of English Commodities, and the bringing in of foreign Commodities good cheap . . . the Maintenance of Navigation . . . the Increase of Queen's Incomes and Customs . . . lastly, the Honor and Service of the Prince and of our State and Country, at home and abroad.

It should be noted that, in Wheeler's list, the political and prestige-related benefits take precedence over the strictly economic. The last chapter of the book (clinching the argument) stressed throughout the contribution of commerce, and of the Merchant Adventurers in particular, to the honor and dignity of England. At the same time, economic nationalism was already at this early stage presented as benefiting everyone involved: it clearly appeared to Wheeler that what was good for the honor and dignity of England was also beneficial to the neighbors and allies connected to it in trade.

Economic Nationalism and Liberal Economics

The ultimate aspiration of economic nationalism, logically, would be control of the global market—making the entire world dependent on one's national product and thus in various ways serving one's national interest. In the sixteenth century, of course, even English nationalists could not define their dreams in such terms. For them, the way to global dominance lay through protectionism and regulation. Only much later would the desire for economic supremacy be connected to liberal economics, when policies of free competition at home and free trade abroad would come to be embraced as useful to the pursuit of national interests.

Indeed, economic nationalism originally took the form of mercantilism, which reigned in England and then Britain throughout the sixteenth and seventeenth centuries—remaining dominant until 1776, when Adam Smith published *The Wealth of Nations*. By that time, Britain was already the undisputed economic hegemon in whatever it counted as the world. It was this change in its position vis-à-vis its competitors that motivated a change in its economic thinking. Adam Smith suggested a new approach towards competition: free trade inside and out. This was not a matter of principle but of pragmatic consideration for him. Smith was a nationalist (which implied that he viewed the economy as a means to the greater good of national dignity or superiority); his support for the Navigation Acts indicated that he saw nothing wrong with protectionist trade policies so long as they served this purpose. But he was convinced that under the conditions obtaining at the end of the eighteenth century, the national interest would be better served by free trade.

Other nationalists understood the interests behind Smith's argument. Some theoreticians in German universities of the early nineteenth century worshipped at the altar of *Smithianismus* and liberal economics—which became identified with Smith in no small degree due to their efforts. But the nationalist Friedrich List, a practical man, insisted that free trade promoted British national interests at the expense of nations with less powerful economies. His American friends fully agreed with him and made certain that the land of the free would stand fast against free trade until well into the twentieth century.

Because of its initial identification with England—and the identification of England with liberal *politics*—capitalism, since the early nineteenth century, and especially after Marx, became identified with political and economic liberalism. According to the theory, economic liberalism—free trade and free competition—was necessary for the development of capitalism, and political liberalism was a condition for economic liberalism. But the identification of economies oriented toward growth with economic and political liberalism is contradicted by three out of the four nations entering the race after England: France, Germany, and Japan. Even the economic regimes of the two exemplars of politically liberal nations, England and the United States, could not be characterized as embracing “free trade” liberalism until relatively late—not until the latter half of the nineteenth century in England, and after World War II in the United States.

Only after becoming the hegemon did Britain begin its transformation into the champion of free trade. It naturally wanted its industrial goods to move out and natural resources to move freely in; free trade was now in its national interest. Its new position was represented as the demand of the sophisticated science of economics (just like the one it replaced) and was equated with connecting the world into one economic system, equally beneficial for all participants—globalization, albeit without the name.

Thus associated with liberal economics, under the aegis of the British Empire, by 1914 international economic integration had advanced to a degree not surpassed until at least a whole century later. But what looked like a wonderful idea (and development) from the British point of view appeared quite sinister to those who were not in the position of economic hegemony. Where Britain saw itself weaving the world into one happy family, others saw only the growing dependence of their nations on Britain. Lenin, for instance, called the spreading system of economic interconnections, aided by free trade, “imperialism”—a sharply derogatory term, suggesting predatory rather than benevolent intentions. Across the Atlantic, meanwhile, the widely hailed “American system” stood not for economic liberalism and free trade but for protectionism and caps on competition with international goods.

After World War II, as Europe and Japan lay in ruins, the United States replaced Britain as the world's supreme economic power. It was at this time that the "American system" acquired its contemporary connotation of economic liberalism—though this has never been completely justified by U.S. economic policies. Globalization under the banner of free trade became the expression of American economic nationalism, just as it was previously associated with British economic nationalism during the latter's hegemonic stage.

With the power to dictate to other nations what is good for them, first Britain and then the United States viewed and framed their own national interest—parlaying their economic superiority into tremendous international prestige and superpower status—as an objective, scientific position. Cosmopolitan academic, business, and political elites with a *personal* interest in being in the superpower's good graces were especially likely to be convinced.

For most of the twentieth century, of course, another superpower contested for the allegiances of such cosmopolitan elites. Its status reflected its position in the international anti-capitalist movement and was bolstered by its enormous military capacity, rather than economic power. But after the Soviet Union collapsed, the only choice these elites faced was the choice between American economic nationalism (dressed as policies scientifically proven to be in the interest of humanity) and the economic nationalism of their respective, weaker nations, which they generally found unenlightened, plebeian, and unappealing.

Economic Nationalism Arrives in Asia

To anyone who takes history as a more reliable guide than economic "theory," it is evident that, as a matter of fact, economic globalization—even in the limited sense of the integration of independent economies into a common system—is not in everyone's interest. It is equally evident that the great powers imposing globalization on others typically do not bother to take the weaker countries' interests into consideration. There is no better example of how this actually proceeds than that of the "opening" of Japan to foreign trade.

For 250 years, that small and resource-poor country kept itself isolated from the rest of the world. It was governed by an authoritarian regime, as was the case everywhere except England at the beginning of the period (1590s), and as everywhere save a few more exceptions at its end (1850s). But it did not intrude in anyone else's affairs and sought to bend no foreigners to its will. It simply did not allow entry to foreigners and discouraged any interest in them among the domestic population. The only thing that Japan expected from the rest of the world was to have its indifference to outsiders repaid by similar indifference. Oriented toward subsistence, its economy throughout this period was subject to cycles of growth and decline, did not progress systematically, and nobody in Japan thought that it should.

By the mid-nineteenth century, however, Japan's isolationism became a problem for the American whaling industry. In order to continue growing, it was essential that the U.S. fleet obtain a place to resupply in the Japanese part of the Pacific. President Millard Fillmore, therefore, instructed the emperor of Japan by a letter—which referenced the "powerful squadron" of men-of-war he sent to deliver it—to open his ports to American whalers. The sally of the American "black ships" attracted the Russians and the

British to Japan's territorial waters. And with this pressure, which included the shelling of a coastal city, Japan was opened to trade.

Nobody could imagine, at the time, how dire the consequences of this imposition would be. The long-term effects include the attack on Pearl Harbor in 1941, the war in the Pacific, and the detonation of atomic bombs over Hiroshima and Nagasaki in 1945. For the intruders brought with them nationalism and awakened in Japan the competitive concern for national dignity (which was naturally outraged by the manner in which the country was bent to a foreign will). The alacrity with which Japan adopted this new, secular, and competitive view of reality is astonishing: it had its nationalist ideologists already by the late 1850s. And because nationalism was presented to them in a "globalizing" economic packaging, Japanese nationalism from the outset was an aggressive economic nationalism with imperial aspirations. Within a generation, the country had reorganized itself on new, nationalist principles. Early in the twentieth century, already a formidable military power with a record of victories over China and Russia, it was pressing on the heels of the British, American, German, and French economies. Indeed, the four front-runners complained of being "menaced" and "harassed" by "a powerful stream of Japanese manufactures."

Nationalism Arrives in China

The spectacular self-assertion of the newly minted Japanese nation triggered the process of nationalism's "globalization," specifically its entry into China. Chinese national consciousness dates back to the defeat of China at the hands of Japan in the First Sino-Japanese War of 1894–95. Japan was always a significant other for China; as the site of the Eastern Capital, it owed the

Middle Kingdom filial respect and obedience. Its blatant disrespect thus undermined China's own self-respect, with some Chinese elites taking this affront personally. Immediately springing to action, they decided to investigate what had made their former subordinate so mighty. The brightest Chinese intellectuals went to Japan to study and were converted to the new consciousness that had actuated their rival's rise—nationalism.

Little more than a decade after the beginning of these Chinese educational journeys to Japan, China developed its own nationalist movement (Guomindang). Within about two decades, the Guomindang had a rival—the Communist movement. This competing movement was modeled on the Bolsheviks in Russia, by that time already installed as the government within a one-party system. Like this Russian model, the Chinese Communist movement was essentially nationalist (which is made abundantly clear by the programmatic texts of Lenin and Mao, as well as the ease with which explicitly nationalist discourse replaced internationalist rhetoric over the years).

In the Soviet case, the Communist movement could not fully self-identify as nationalist because it was in the Russian national interest to preserve the empire, at least half of which consisted of non-Russians who could not be "Russified" because of the ethnic character of Russian nationalism. The Chinese Communists, for their part, did not initially self-identify as nationalist because they needed to differentiate themselves from the Guomindang. Maoists and Guomindang instead fought to preside over the Chinese nationalist project—the restoration of a dignified China, occupying a place in the world commensurate with its colossal size and five thousand years of history. Eventually, this project proceeded under the Communist banner.

Both movements, however, represented only an elite sector, a tiny percentage of the Chinese population. Throughout most of the twentieth century, the Chinese people were not engaged. In Europe, nationalism added dignity to the identity of every human being, collapsing the "society of orders" and elevating the importance of the secular world. But in China—where this world has always been the sphere of the sacred, and individual dignity reflected one's educational achievement—the introduction of nationalism could not have such an effect. The ideals of the Chinese leadership remained irrelevant for the masses, because the masses had nothing to do with the dignity or international prestige of China, and vice versa. Scholars enjoyed high status, while peasants and those engaged in business were looked down upon. The masses, by their very nature, could not contribute to the dignity of the nation; they were, in effect, culturally prevented from doing so.

After Mao's death, his successor Deng Xiaoping's reforms changed this. The change in policy implied a revolution in the leadership's attitude toward economic activity. Previously, Chinese traditions that disparaged moneymaking denied the economic classes dignity. But now the Chinese people were to be the main shareholders in the collective dignity of the nation, and welcomed into the elite circle of contributors to the nation's glory.

This competitive, nationalist motivation was formerly missing in China, preventing its ascendancy. But we have seen what this motivation did to the comparatively tiny Japan, and now China has acquired it. The speed and enthusiasm with which hundreds of millions of Chinese responded to their rulers' invitation to join in the common national project took the world by surprise. Nobody expected China to become nationalistic all of a sudden. For this reason, its immediate economic competitiveness, if at all noticed as something new, was interpreted as a part of global secular trends, and the rapidity of China's ascendance to the position of world economic hegemon was not anticipated.

But within a matter of years, China will leave all other aspirants to economic superiority far behind, including those who currently enjoy it. It will simply be impossible for any Western power (each weakened by the disaffection of its elite and divided against itself) to overcome more than a billion Chinese, highly motivated and united in their national commitment. Only India might, perhaps, challenge this energetic mass in the future.

Under the leadership of China, economic globalization—the weaving together of disparate economies into one system—will proceed apace, as it is already. China will create ever more free trade zones, as it already does. It will insist on and wrench concessions from all its business partners. Its paramount objective will be to pursue its national interests, using its economic supremacy to maintain and increase its superior dignity and international prestige—and in doing so it will contribute to the prosperity of the world, while making the world dependent upon China.

To assert their independence and dignity vis-à-vis the Chinese colossus, some, like Russia, may throw even more of their energies into increasing their military capabilities, or into cultivating their arts and letters. But the only way to compete in the economic sphere will be to return to the original economic nationalism of protectionism and state intervention.

Unless, of course, China persuades other nations that doing its bidding is a win-win situation.

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Rebuilding British Industry: A Plan for the Post-Brexit Economy

JEROME DOUGLAS

Today Britain finds itself in an odd position. In the wake of the vote to leave the European Union and its aftermath, the Conservative Party has been given a new mandate. A substantial portion of the voting public wants a more independent Britain to pursue national restoration and regeneration. On an emotional level, most of the Conservative Party has been won over by this vision. Rallying around the departure from the EU, Conservative Party politicians have signaled to their party membership, as well as the voting public, that they are willing to lead the country in a new direction.

This Damascene conversion has, however, generated contradictions. On the face of it, the vote to leave the EU was one motivated by skeptical attitudes toward the laissez-faire policies that have dominated British political life for decades. The most obvious outcome of the exit from the EU will be to halt the "free movement of people"—that is, mass migration—and increase trade barriers with Britain's largest market. Yet at the same time, the leaders of the Brexit movement—from Nigel Farage to Jacob Rees-Mogg to recent convert Boris Johnson—typically champion Thatcherite free market policies.

The economic policies of these pro-Brexit Tories, however, are ill-suited to the Britain of 2019. Given the degree of political upheaval and change surrounding Brexit, such a deep disconnect between Tory free market ideology and the stated goal of independence could generate chaos.

Thatcherite free market policies will almost certainly make the situation worse, not better, especially given Britain's fragile position. Britain must instead pursue an aggressive industrial and manufacturing policy in order to avert economic crisis after Brexit. To take this path, Tory leaders must follow their better instincts and craft policies that actually match their goals. British independence depends on British manufacturing and domestic consumption. But the free market nostrums of the 1980s will not get us there.

Britain's Decline: From Imperial Grandeur to Tony Blair

To understand what must be done, let us first consider how the country arrived in such an economically dire situation. In the early 1910s, Britain was on top of the world. It had a huge empire and the world's most sophisticated economy. Its military spending, which approached £65 million, was the highest in the world—although Germany, now unified and interested in mimicking the British Empire, was a close second. Just prior to the outbreak of World War I, Britain's per capita GDP was nearly $5,000, far outpacing Germany ($3,650), France ($3,500), Austria-Hungary ($2,000), and Russia ($1,500). It was only really matched by the rapidly growing United States.

By the end of the war, however, Britain was in tatters. The Allies had won the war, but at massive cost. Throughout the 1920s and into the 1930s, Britain tried to maintain its international prestige by jealously defending its gold standard—much to the detriment of the British economy. Policymakers reasoned that what had worked in the past—an imperial economic system based on intraimperial trade, centered on the gold standard and London-based banking, would work in the future. Critics pointed out that the high imperial era was over, and that Britain would do better to focus on its domestic market.

Britain fumbled throughout the interwar years, gradually giving way to the new economic ideas and dropping the gold standard in 1931. But no fundamental reform was undertaken, and the British economy languished. For this reason, Britain went into World War II with significant economic disadvantages. What happened next was all but inevitable: the United States, now with global ambitions, financed British war expenditure knowing full well that the resulting debt would destroy Britain's global reach.

After the war, the script played out as if pre-written. Britain found itself totally overshadowed in the global arena by the United States. The debts that Britain owed hung over her head like a glistening sword, and the Americans were eager to use the leverage they had gained to encourage the unraveling of the British Empire. This came to a head in 1956 when the Egyptians nationalized the Suez Canal, a key trading route required for the British imperial economic system to function. The British knew that they had to respond militarily, but the Americans were happy to see them lose their empire. President Eisenhower warned the British that if they carried through with an invasion, he would sell the debt that the British owed the Americans, thereby crashing the sterling and sending the country into financial ruin. Eventually the British backed off and watched as their empire fell apart in the ensuing years.

Since the nineteenth century, Britain's economy had been based on the imperial system. Trade would occur within the system, and the City of

London would make the necessary financial arrangements. The British never admitted to themselves that their economic success was based on empire, however. During the imperial era and after, they clutched at the myth that the system was based on so-called free trade. British political economy even turned this mythology into a pseudoscientific theory. It was the very essence of ideology: it was designed to reassure the British people—and the world—that Britain had not achieved success through conquest and military force, but rather through hard-fought economic competition.

This ideology was harmless when Britain was in its ascent. But it became toxic when Britain started to decline. It blinded the British from seeing that, as their empire collapsed, so too did their economic system. In the decades after World War II, this ideology was mainly focused on maintaining the gold standard—just as it had been in the 1920s. As other economies were racing ahead, using Keynesian economic programs to push high rates of economic growth and full employment, Britain got stuck in the dreaded "stop-go" cycle. The British would encourage economic growth but, as imports were sucked in to fuel the growth, the sterling would wobble and the British authorities' attempts to protect the gold standard would lead to recession.

In the imperial era, Britain would grow in lockstep with the rest of the empire. And since the empire was a closed system, as British imports from the empire increased, so too did British exports. In the postwar world, however, Britain was facing international competition, especially from the United States, and its exporters were only competitive in underdeveloped colonies like India. Since Britain was never the free market success story that it claimed to be, it languished in this new world. It was unable to keep up with the other developed economies because of its tendency to suck in imports as it grew.

The stop-go cycle of the postwar era fell into terminal crisis in the 1970s. British workers had had enough with multiple governments' unkept promises, and they turned to radicalism. This radicalism manifested in mass strikes which generated supply shortages and inflation. This situation was exacerbated by the oil price shock in 1973, when oil prices soared as the newly formed OPEC halted production in response to the Yom Kippur War. By the late 1970s Britain was a mess. Garbage went uncollected, inflation was running in double digits, unemployment was high, and maintaining the sterling was all but impossible. The British went, cap in hand, to the IMF in 1976 and took out a loan—a true signal of national humiliation and defeat.

If the postwar Keynesian era was one of mild misrecognition of the problems Britain faced, what followed was a descent into full-on delusion. When the politicians of the 1920s tried to force the British economy back into its prewar state, it was at least somewhat understandable. After all, the empire still existed and the past that they pined for was not all that distant. The Thatcherites who climbed to power at the end of the 1970s wanted to return to the same era—but they had never lived in that world, and the empire that it relied upon was almost completely dissolved. What had been a sort of reactive conservatism in the 1920s became a nostalgic fantasy in the 1980s.

The immediate goal of the Thatcherites was to bring down inflation and create a nineteenth-century-style "free market." Under the sway of ideologues like Milton Friedman, they thought that they could achieve this by controlling the supply of money. As the Bank of England experimented with this policy, interest rates went haywire and entered double-digit territory. This generated a massive recession and accelerated the decline of British manufacturing, though it succeeded in stamping out inflation through massive declines in spending growth.

Between 1948 and 1978 the decline of British manufacturing was gradual and was driven by competition from abroad. As I noted earlier, British manufacturing could only successfully compete within the imperial system. When it was subject to global competitive forces, it floundered. After 1978, however, this decline sped up enormously—primarily due to the Thatcherite policies.

In the first place, interest rates rose precipitously, and this rise generated a massive recession that pressured many British businesses to close their doors. In addition, sterling rallied throughout the 1980s. Financial investors saw that Britain offered much higher interest rates than other countries, and foreign capital flowed in. This was exacerbated by the Thatcherites' deregulation of the British financial sector in the late 1980s—the so-called Big Bang. Unable to compete in global markets for goods and services, Britain turned back to its old imperial banking system and restructured it to make it a center for global finance. The resulting rise in the value of sterling made British manufacturing even less competitive.

By the 1990s, the new model for Britain was clear. The British economy would be totally reliant on financial services. Even the Labour Party embraced this model under the leadership of Anthony "Tony" Blair. Blair was a vacuous liberal left-winger who governed the country through his public relations machine. He portrayed himself and his party as the embodiment of a “cool” new country—one geared toward personal freedom and license. What was supporting this phase of decadence, however, were financial inflows that were anything but stable. These inflows propped up the sterling and allowed British consumers to spend more on goods made abroad. Consequently, during this period, there was a serious deterioration in the British current account.

By the time Tony Blair left office in 2007, Britain was running a current account deficit of around 3.5 percent of GDP and manufacturing had fallen to around 11 percent of total value added, down from around 27 percent in 1978 and 36 percent in 1948. This was an economy running on borrowed time.

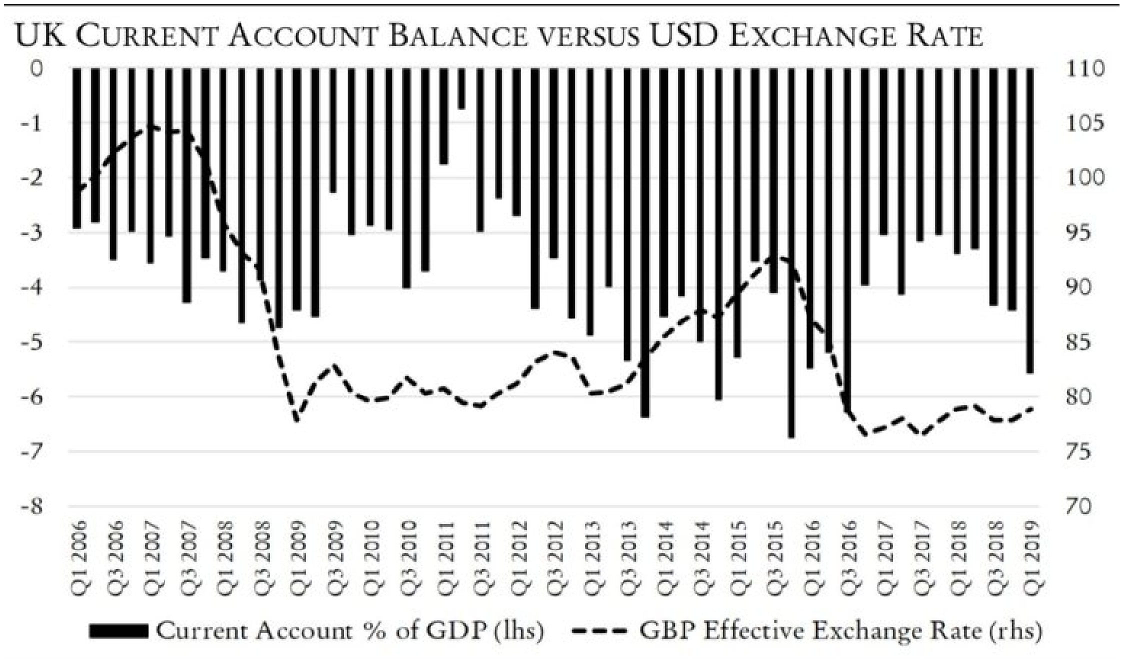
The Lion Eats the Unicorn

Cracks appeared in the Thatcherite banking-and-import model when the financial sector started to collapse in 2008. The action was mainly centered around a bank called Northern Rock which, like many of its European and American counterparts, had bought more bad debt than it could handle. As the financial sector melted down, sterling took a hit. After all, strong sterling relied on a vibrant financial sector that could attract foreign capital so that British consumers could live beyond their means. Between January 2008 and January 2009, sterling collapsed by 20 percent. The next hit came in the wake of the vote to leave the EU, which occurred in June 2016. Between May and October 2016, sterling fell an additional 14 percent.

These events were only proximate triggers, however. Britain's model was never sustainable. It always relied on offering investors incentives to move foreign capital to London. But this required either interest rates so high that the economy could not grow or financial bubbles that would never pop. Neither of these was possible in perpetuity. And so it was inevitable that sterling would eventually start to sink. The party over which Tony Blair had so carelessly presided was bound to end.

At this point in the story, many economists would step in and suggest that things are not all that bad. After all, we have argued that a key driver of the rapid decline in British manufacturing and the reliance on imports that accompanied it was the overvaluation of the sterling. While it is true that a falling currency causes rising import prices for consumers, it is also true that the price of exports tends to fall. This makes the country more competitive in international markets. In theory, then, what the British people lost in their ability to buy imports, they should have gained in higher value-added and hence higher-paid manufacturing jobs.

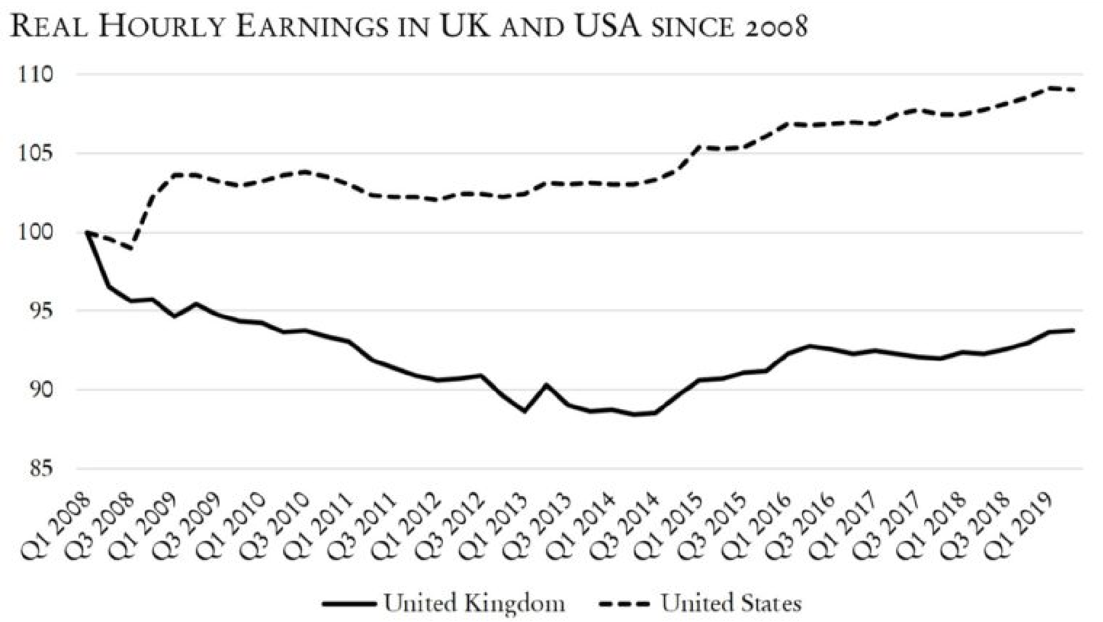
But this did not happen. Exports simply did not rise. The chart below shows the British current account as a percent of GDP against sterling since just before the first leg of sterling's decline.



The fall of sterling between 2008 and 2009 was accompanied by a decline the current account deficit. But this was due to the large recession that the UK experienced in this period. With unemployment high and people pulling back on spending, imports fell, and the current account closed. But once growth resumed in 2011, despite the new lower-valued sterling, the current account deficit opened once more—this time to record levels, hitting a peak of 6.7 percent of GDP in the fourth quarter of 2015. The same is true of the 2016 decline in sterling: An immediate impact is visible in the data. But it does not last long. By the first quarter of 2019 the current account deficit is back to an extremely large 5.5 percent of GDP.

Why is the decline in sterling not leading to a rebalancing of the current account deficit, as economists would predict? First, Britain has almost no manufacturing capacity. When the income of British people grows, they are forced to spend a good portion of this income on imports. Even if these imports rise in price, there is no alternative but to purchase them anyway (i.e., they are price-inelastic imports). This also means that the real spending power of the British people falls dramatically every time there is a depreciation of sterling.

While the real earnings of citizens in other countries have been growing in this period, in Britain they have been falling. Since 2008 real earnings for the average Briton have fallen 6.25 percent. At their trough at the end of 2014, they had fallen an enormous 11.5 percent—a substantial loss in purchasing power and an ominous sign of things to come.

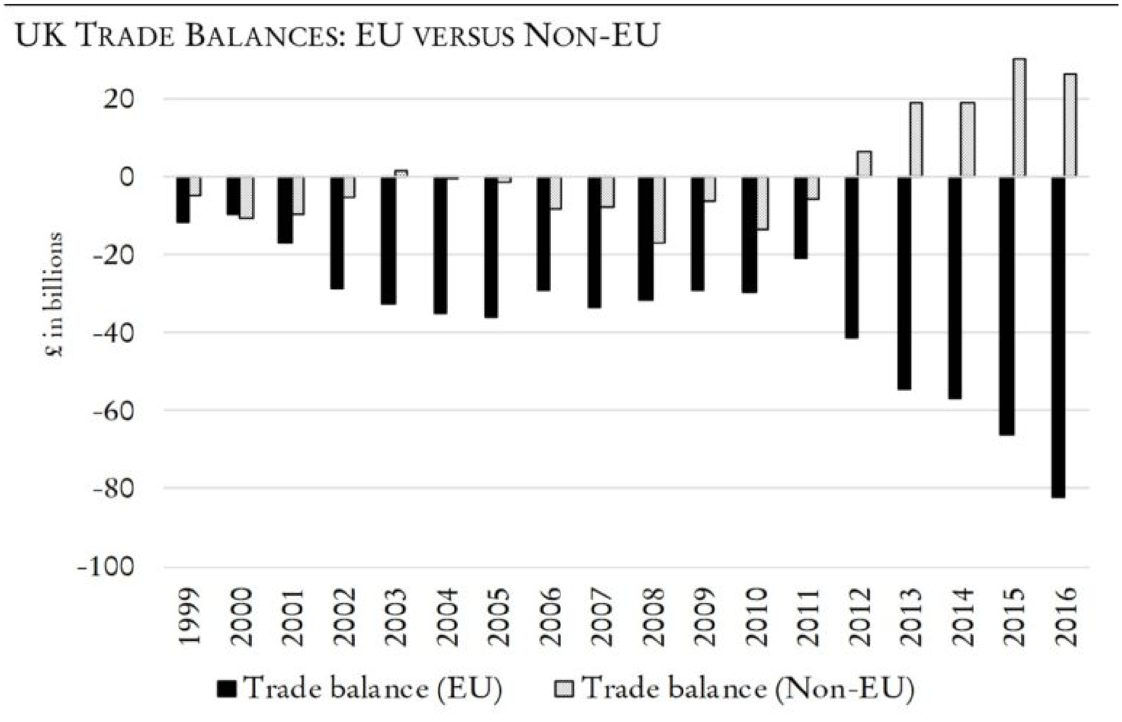


On the one hand, then, the depreciations of sterling were leading to a significant fall in the standards of living of the British people. But what about the export market? It expanded slightly as a percent of total income. But nowhere near enough to support the imports that the British people rely upon. Again, this is because Britain does not really produce all that much. Even if prices fall, there is nothing there to sell. Economists may imagine that currency depreciations cause new factories to pop into existence out of thin air. But after decades of deindustrialization in Britain, it is not surprising that this does not happen.

Britain is in a very difficult position. Unless it can find some way to wean itself off imports, it is sure to see a dramatic fall in living standards in the coming years. The fact that the economy relies almost completely on the fickle financial sector means that trigger events tend to knock real wages down every couple of years. And given Britain's tumultuous exit from the EU, there are certain to be many trigger events lined up in the years ahead. A new path is needed.

But perhaps it is wrong to view Britain's exit from the EU as a harbinger of decline. Perhaps it should be seen as an enormous opportunity. To see why, we have to consider where Britain buys its imports, and with whom it runs its deficits.

What the following chart tells us is that, up until 2011, Britain ran large trade deficits with the EU, while trade with non-EU countries was closer to being in balance. Since 2011, Britain is running a surplus with non-EU countries, but larger and larger deficits with the EU. The EU is clearly Britain's most problematic trade partner.



This situation gives rise to an irony that is not much noticed in British policy circles: net-net, trade with the EU is a bad thing for the British economy, at least from a macroeconomic perspective. Less trade with the EU is, then, from a purely macroeconomic perspective, probably better for Britain's long-term stability. This fact contradicts almost everything we hear. Policymakers typically characterize any diminishment of trade between Britain and the EU as a bad thing. From the point of view of a British consumer who wants French cheese or Greek yogurt, a reduction in trade certainly is bad. But from the point of view of macroeconomic stability, a diminishment of trade is *essential*.

Let us step back and think this through for a moment. How could it possibly be a good thing for British consumers to have less access to the goods from the EU that they want? Consider what would happen if we completely cut off trade with the EU tomorrow: Consumers would not have access to EU goods. But they would then have to spend this money elsewhere and some of this—probably most of it—would flow back into the domestic market.

A microeconomist would now point out that consumer satisfaction has fallen. British yogurt and cheese are nowhere near as pleasant as Greek yogurt and French cheese. But if the above macroeconomic analysis is correct, the alternative is that British living standards are destined to fall regardless. The question then becomes, what is the optimal way to manage the fall of these living standards in order to generate the best possibility of subsequently raising them again?

Marching along, enjoying all the continental yogurt and cheese that the debt-soaked British consumer can afford is a path to economic suicide. It is, of course, great for immediate consumption. But it provides no coherent plan for the future. When the continental goods become too expensive, the British consumer will have nowhere to turn, and British industry may take years to respond to the new situation. On the other hand, if a government could look forward to the new alignment that is coming, it could plan for it. The state could direct investment spending into needed industries.

The departure from the EU could provide just the shock necessary for the British people to realize that the current model is not sustainable. It might lead policymakers to ask some long-overdue questions: e.g., why do we assume trade with the EU is purely a good thing when they seem to be running rings around us, while we seem to be building up macroeconomic imbalances for which we will be severely punished in the future?

Buying British: A Platform for the Post-Brexit Economy

What would an appropriate reform platform look like? As noted earlier, the Conservative Party has inherited a political situation that cries out for action on a national level—and they have inherited an economic situation which requires the same. Were it not for free market ideology, the political and economic situations should tend toward parallel solutions. But the Tories are under the sway of an irrational nostalgia for free trade based on a nineteenth-century economy that never truly existed.

If they could overcome these ideological blinders, they could indeed pull Britain out of its rut. They would have to concentrate as many economic forces as possible into the domestic market. Every policy would have to be judged based on how much it led to internal development and avoided the purchasing of foreign products. Boosting exports could help too, but government-led export booms are more difficult to achieve.

The real key to British prosperity moving forward would be to have consumers buy British. At present, imports make up around 31 percent of GDP. Almost one in three goods or services purchased in Britain today is from abroad. Policymakers should try to get that number down to at least 20 percent.

The easiest way to do this would be to examine carefully what Britain is importing. Those products that can easily be produced domestically should be produced domestically. The government should incentivize and even subsidize domestic businesses to make products that can replace their international counterparts. To put it bluntly, there is no reason that Britain should not be producing its own cars and household appliances. They have done it before. If British engineers at Rolls Royce can make jet engines, they can figure out how to build a toaster or remember how to build a small car.

Microeconomists will complain that these products will likely be inferior to their international competitors. The *British* microeconomists will remind us of the days, not so long ago, when Britons drove shabby Rover cars instead of streamlined German models. But, again, *British living standards are destined to fall regardless*, and it is better that the British people have access to slightly inferior cars—while laying the groundwork for future growth—than it is that they find it hard to purchase a car at all.

A program of import substitution is urgently needed. The government should begin subsidizing British industry to produce goods that are currently purchased abroad. The exit from the EU in particular gives them ample scope to do this, now that they are not bound by arbitrary trade rules.

A central body should be set up, staffed by market analysts and economists, to track imports and highlight potentially substitutable items. A development bank should also be set up to issue debt that can be bought by the Bank of England to pay for such import substitution. A budget for this development bank should be set once every few years based on an annual target for import reduction. The market analysts and the economists will then direct this budget to the most promising industries.

Engineering and other relevant degrees should be subsidized by the government and secondary school students should be strongly encouraged to take classes to follow this degree path. Meanwhile, British engineers currently working abroad should be drawn home to work on the project.

And those who are not doing actual engineering work, but are instead working on consulting jobs, should be brought into the fold. The effort should be done under the banner of national renewal and should have the same public spirit ethos that we saw in Britain during World War II.

It is an ambitious policy, to be sure, and it would require strong leadership. It would also require leaders to jettison the ideological baggage and the false economic history that many of them have learned from birth. But it can be done. Indeed, it must be done.

If Britain does not undertake a program of industrial renewal, the exit from the EU will be remembered as the start of a very sharp period of decline for the country. A major world power, albeit one that has already been languishing for nearly a century, will end up like one of those long dead, stuffed birds marveled at in a Victorian museum.

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content. In today’s climate of widespread misinformation, Outline empowers readers to verify the facts.

Solidarity under a Song: What Strikes in China Tell Us

FENG XIANG

Early one Monday morning in 2010, Tan Guocheng came to his shift at Honda's Nanhai factory in Guangdong Province. Tan was a twenty-four-year-old migrant worker from Hunan, a neighboring province, and the factory manufactured automobile parts. But that morning Tan did not turn on the machine. Instead he pushed a red emergency button nearby. At once a "humming" noise filled the air, and the entire production line stopped. As planned, Tan and a group of workers walked out. Others stood there, hesitating, watching, but soon the ranks of the protesters grew as they assembled in the factory's basketball court. Thus began the great Nanhai strike of 2010, the beginning of a long increase in labor strikes that has continued through today.

In the years prior, the *political* role of the strike had become less visible. In the West, strikes long ago took on a highly ritualized form, becoming a part of the game between labor and capital that could be easily planned for on both sides. (The decline of manufacturing and changing nature of work also affected strikes in the West.) The Nanhai strike, however, carried a much more radical intention. While the common formula used to explain strikes cherishes the "unseen hand" of the market and its concomitant rights discourse, Nanhai essentially represented a conscious effort of the strikers to repoliticize their walkout. They sought to overcome the barriers posed by the "rule of law" and return what the law defines as contractual employment disputes to their original status: the breaking, repair, and reorganization of the Party-masses relationship. The solidarity thus regained would not be a lawful right, but an avatar of justified power, authority, and people's sovereignty, all captured by a single Chinese character, "quan" (权). It is this phenomenon which has begun to appear not only in China but also, for example, in the *gilets jaunes* movement in France.

In the recent past in China, a "mass incident" (*qunti shijian*) like Nanhai ordinarily ended quickly, "mass incident" being a euphemism for any forms of unapproved public assembly, demonstration, strike, or rioting. This time, however, the workers did not submit to the usual measures of control by the management and the company's trade union: cash offers and threats of layoff, beatings and calling in the police. Nothing worked. Even after Honda summarily fired Tan and another leader, and asked all employees to sign a pledge not to join the walkout in exchange for a ¥55 (€6.90) monthly bonus, the strike continued. The protesters rallied at the factory gate, all in white uniform and surgical masks to avoid being identified by surveillance cameras and targeted for reprisal. In unison they sang the national anthem:

"Arise, ye who refuse to be slaves! With our very blood and flesh, let's build a new Great Wall." The anthem, entitled "March of the Volunteers," is a historical battle song born in the war against Japanese aggression, which later evolved into World War II.

The strikers also went on the web for support and formed QQ communities (Chinese chat rooms), where they addressed each other as "comrades" (*tong zhi*). Thus they restored a moldy bureaucratic appellation to its radical original meaning—"tong zhi," fellows "of one will" (a usage also shared by China's gay subculture, not coincidentally).

So the strikers persisted, for nineteen days. Their demands were firm and clear: (1) reorganizing the trade union, (2) a pay raise of ¥800 (€100) per month, and (3) no reprisal. Perhaps due to their moral courage and discipline as well as their grievances, which drew great sympathy among the public—or just by accident—the *People's Daily* published a detailed report on the strike. According to observers, the coverage was unprecedented for the chief organ of the Chinese Communist Party, for it carefully maintained neutrality and neither pointed a finger at workers nor sided with management. Reform-minded scholars and news commentators felt encouraged and called for a "rule of law" strategy in lieu of harsh suppression for the sake of "keeping stability" (*wei wen*). For suppression, in their view, is likely to aggravate the conflict and "drive the Party's mainstay, the masses of workers, to become opponents to the Party."

Eventually, with the battle song reverberating on the factory premises, the workers "spontaneously" elected thirty delegates, who drafted a six-point bargaining plan. On June 4, a day after the delegates web-published an

"Open Letter to Workers and All Walks of the Society," the management agreed to sit down. Rounds of tough negotiation followed. With the help of a mediator, the CEO of a state car maker (in his capacity as a member of the National People's Congress), the two sides reached an agreement on a monthly pay raise of ¥500 (€62.5). The agreement took effect by a vote, and the protesters returned to work on June 5.

What happened next was a landmark achievement in the labor history of the People's Republic of China: the company's trade union was reorganized pursuant to the strikers' demands. The pressure is said to have come from the provincial Party officials upset by the workers' angry denunciation of the union. In theory, the Party consists of what is called the "pioneers of the proletarian class," while the union functions as a self-governing organization independently representing the workers' interests (articles 4 and 6, the Trade Union Law 2001). Yet the Nanhai workers not only had no trust in the union, but loathed it. Indeed, throughout their negotiation with the management, the union was totally ignored. Such open hostility was reportedly a great embarrassment to the provincial trade union which supervised local unions. Consequently, a team of union cadres was sent in to implement a six-month program of "norm building" and to offer "guidance."

The old rule of appointment was dropped. The new officers of the Nanhai union were not picked among managers or "fallen from the sky," as people say of those designated by the government. This time they were elected by workers from among themselves—every one of them, team leaders, workshop representatives, up to the chairman and his deputies. The new democratic union then led the bargaining on the year-end bonus and 2011 salary scheme, with the backing of the provincial trade union as well as competent legal counsel. Again the negotiation was intense and nearly collapsed, but both sides made eleventh-hour concessions and agreed on a 27 percent pay raise.

The new union's success was hailed by labor experts as an exemplary resolution of labor disputes, and media pundits also predicted that the case might mark a new chapter in the official union's democratization. For the reorganization of the Nanhai union took place at a critical moment, as 2010 saw a sharp increase in labor unrest nationwide, especially in privately owned and foreign-invested enterprises. After this new development, it was hoped that strikes would become rarer and even unnecessary, given what can be gained through collective bargaining by democratically elected unions.

To consider the Nanhai case in the larger social, economic, and historical context, however, several questions are in order: First, what are the main factors that contributed to the recent eruption of labor unrest, and who are the strikers? Secondly, do workers have a right to strike under Chinese law, on the books or in reality? Thirdly, whatever legal status the workers' collective action and achievements may be, what can we expect for the future of China's labor movement? Let us consider these questions one by one.

Who Are the Strikers?

That labor unrest is on the rise is news no more. Its ubiquity has been blamed on a variety of social trends and economic policies: the gradual aging of the population and labor shortage; industrial upgrading and outsourcing of blue-collar jobs; new tools of mobilization in the internet age, like microblogging and QQ chatting; as well as the government's ambitious urbanization plan, which will relocate millions more rural laborers to cities, to pursue the dream of a "well-to-do" (*xiao kang*) life. "Empty the cage and change birds," as an official slogan put it.

So, who are they, the strikers? In Western media they are called "migrant workers." The stereotypical description is of a young man or woman from a remote, poverty-stricken village in one of the inland provinces. He or she comes, with a group of villagers or through the help of a relative or friend, to a coastal city and finds a job and earns a meager living. Often the treadmill employment drives workers to injury and illness. In extreme circumstances, their desperate protestation takes on a very traditional form of appealing to Heaven as the ultimate Judge—suicides. For instance, workers jumped to their death from buildings at some facilities of Foxconn, a computer maker and consumer-electronics giant, a Fortune Global 500 company.

But to call such a worker a migrant is, strictly speaking, a misnomer. The Chinese term is more accurate, "peasant worker" (*nongmin gong*), as his or her official status in terms of household registration (*hukou*) is a peasant, not a migrant to a city. Free migration is not yet a citizen's right due to the "hukou" system. Without an urban "hukou," the peasant and his or her children have only limited access to education, employment, medical care, and social security benefits. Today the majority of peasant workers are of the second generation. These "new workers" are better educated than their parents, having been exposed to the lures of urban life and ways of commercial society at an early age. While the first generation rarely took collective action, for various reasons, the second generation is much more prone to staging a "mass incident"—hence more frequently becomes a headache for both the management and government.

In the Nanhai strike, the "instigator" and one of the organizers was the twenty-four-year-old Tan, as mentioned above. Before his Nanhai job, he toiled with little pay at another Honda facility in nearby Guangzhou as a temporary hand. At Nanhai, he was paid ¥1,200 (€150) per month, with which he could hardly make ends meet. And he found out on the internet that, despite the global financial crisis, Honda's operation in China was doing quite well, generating huge profits and forming a significant portion of the Japanese giant's total revenue. He decided to quit his job after the lunar new year. But he also talked with fellow workers about the possibility of a strike, and many said they would go along with him. So Tan handed in his resignation in April, giving thirty days advance notice, as per company policy. The rest is history.

Later, in an interview with a Hong Kong weekly, Tan emphasized that throughout the "mass incident" the strikers adhered to the principle of nonviolence. The idea was inspired by Mahatma Gandhi, he said—a decade ago, who would have expected such foreign ideas and "educated" language on the lips of a peasant worker? As soon as the strike began, he circulated a note among workers, asking them not to damage company property, so as not to give the other side an excuse to call in the police. When the management and official union turned up pressure and threatened punishment, the protesters got the real-time photos, videos, and footage on the web, which immediately spread the news of the walkout throughout the country. Chanting the "March of the Volunteers," the strikers exerted their unity in civil disobedience: “Arise, arise, arise! Millions of masses of one mind, Brave the enemy’s gunfire, March on! Brave the enemy’s gunfire, March on, march on, march on, on!”

Noticeably, however, Tan and his fellow workers did not pursue any legal options, nor would they pay lip service to the “rule of law,” as did the authorities. In other words, the strike was a success despite its lack of legal protection. How did this come to be?

A Right in Legal Limbo

Whenever there is labor unrest and strikers are fired or subject to threats and beatings, or face arrest and prosecution, a legal question is invariably asked: do workers in China have a right to strike? For human rights lawyers and constitutional scholars, as well as labor activists, this question has been like a “thorn in the flesh” for three decades, a real torment from Satan’s messenger, so to speak (2 Cor. 12:7). For the agony was caused by none other than the PRC Constitution of 1982.

Prior to 1982, the freedom to strike was accepted by the Party and enshrined in both the Constitutions of 1975 (article 28) and 1978 (article 45). There this freedom is listed in the provision of “citizen’s basic rights” along with the rights of free speech, correspondence, press, assembly, association, demonstration, as well as the “four great freedoms” endorsed by Chairman Mao in 1957—namely the freedom to air one’s views, criticize authorities, take part in debates, and put up big-character posters. In 1982, the NPC adopted a new constitution, following the Party Central Committee’s resolution on the Cultural Revolution (May 1966–October 1976). The lawmakers duly deleted the term “strike” from the basic rights provision and dropped the “four great freedoms.” While the latter were repudiated as relics of the Mao era, the freedom to strike was canceled as “a product of the ultra-left trend of thought, incompatible with the interests of socialist development or with China’s concrete circumstances.” “Since enterprises in our country all belong to the people,” the NPC legislative notes reasoned, “a strike that halts production is a damage to the interests of the people in its entirety, including the working class.”

At the time of this legislative statement, it should be noted, China’s economic reform was at an initial stage, and the majority of enterprises were either state-owned or owned by collective entities (such as a People’s Commune or a neighborhood committee). The assumption was that urban workers as a class were now the “masters of the state,” who shared the same basic interests and long-term objectives with their “work units” (institutions and enterprises). Therefore any disputes that arose between the work unit and individual workers should be resolved by proper means rather than a strike, such as “criticism and self-criticism” and reconciliation, so as to minimize the interruption and possible damage to the socialist cause.

That of course is specious reasoning. For one thing, the economic reform (i.e., privatization) had already begun, and soon most state-owned and collectively owned enterprises would be transformed into private companies or go “bankrupt” and be sold—a process that would drive a large chunk of the nominal “master class” into unemployment and early retirement. The vacated jobs as well as those newly created were to be filled mainly by peasant workers. Understandably the peasants were “cheaper” and easier to “manage,” for, as discussed above, without “hukou,” they are in a much weaker position than regular state employees to bargain for better pay, labor protection, or humane treatment.

Nonetheless, until recently, there has been strong opposition to statutory recognition of the freedom to strike, from the political establishment as well as industries, who viewed workers' solidarity as a threat to private property rights, social order, and economic development. Today, some right-wing reformists and conservative media still refuse to budge, but scholars and labor activists argue that the constitutional cancelation does not mean the workers' walkout is unlawful, though the legal system has yet to accept the "three rights of labor"—the rights to organize independent trade unions, to strike, and to bargain collectively. The preferred approach among moderate advocates is therefore one of "de-politicization," meaning to replace the current high-handed policy of "keeping stability" with a form of "rule of law."

To this end a number of arguments have been proposed. One is based on the *maxim nulla poena sine lege* (no punishment without a law). It goes like this: Although striking is no longer a constitutional freedom, it has never been outlawed, either. Therefore the law has no reason to interfere if a walkout does not infringe upon the lawful rights of any enterprise or citizen or breach social order. That, however, is rarely the case.

On a positive note, one may point out that since China has acceded to the International Convention on Economic, Social and Cultural Rights without any reservation, the Chinese government has an obligation under that convention to respect the workers' right to strike (article 8). Plus, a stronger argument adds that certain national statutes can be interpreted to lend further support. The Trade Union Law of 2001, for example, requires that in the event of "a halt of work or slowdown," both the union and management "should" endeavor to "conciliate" and "resolve the incident" (article 27). Is the phrase "a halt of work" not a description of a strike? If yes, it is suggested, the "should" provision appears to assume an obligation on the union and management, hence a right for the workers, with regard to the strike in question.

Unfortunately such a "liberal" interpretation is a bit overstretched. There can be many reasons to impose an obligation, and the law requires only that the union and management "conciliate" and "resolve the incident," and mentions nothing like the workers' right, as if they were outsiders to the dispute. From such language one can hardly infer a vague statutory restoration of the freedom to strike. Nor is the International Convention really of much help, as it cannot be implemented in China without an enabling statute in the municipal law, and the Trade Union Law is clearly not such a statute.

Given that the legislation has omitted the freedom to strike, can the People's Court be of help with a little judicial activism? That too is unlikely, at least for now. The conundrum is an institutional one, and familiar to China scholars. Indeed even an occasional observer cannot fail to notice, including one of the leading jurists known and studied in China: Judge Richard Posner. Recently at a University of Chicago summer program on "law and economics" specially designed for young Chinese scholars, Judge Posner delivered a speech. The pioneer of "law and economics" called himself an "outsider," but remarked that China is "a nondemocratic country with a tenuous commitment to the rule of law," and that "in such a political culture . . . it would be a mistake for the judiciary to be pragmatic, or at least to be very pragmatic—that it would be better for it to be abstract and formal, and actually remote from practical and pragmatic." For by removing themselves from the practical, the judges (in the manner of a Blackstonian judge) could say, "Look, all we judges do, we translate immemorial principles of justice into decisions. We're not politicians; we don't exercise discretion. We don't consider consequences; so leave us alone."

Now the use of legal dogmatism by the Chinese "Blackstonian judge" playing the game of "the oracles of the law" after the manner of a Delphic priestess, out of self-interest, as recommended—is this approach rather too "practical"? But Judge Posner is right, in a sense. The People's Court is a relatively weak department in the Party-state apparatus. It has to be very flexible if it is to maintain the little authority allowed to it, as well as to hide the widespread corruption. Not surprisingly, coping with all sorts of interference and bribery, the judges tend to take refuge in dogmatism and therefore must deny the workers their right to strike. Consequently strikes and collective actions in general continue to dwell in a legal limbo, as a constitutionally revoked freedom.

Overcoming the Law by a Song

So the strikers sang the "March of the Volunteers," at Nanhai and everywhere. By singing the historical battle song, the workers effectively said "No" to both the legality of their strike and the legitimacy of any act of suppression or hostility whether by the management and official union or by government authorities. In other words, they rejected the hypocrisy of "rule of law" and chose to re-politicize the strike, making it a resounding political expression rather than a mere labor dispute over some economic and personal rights.

The anthem was composed by Nie Er, a musical genius, patriot, and young Communist who died in 1935, aged twenty-three. The song has always been a rallying call for courage and solidarity in national crisis. Much like holding up portraits of Chairman Mao by demonstrators in post-Mao China, singing the anthem is also a symbol of protest. It is an effort to overcome the barrier of unjust laws and corrupt bureaucracy in order to speak to the Party directly, without any intermediary such as the prescribed arbitration for labor disputes, or even the People's Court.

The symbol is powerful because it holds the Party accountable for the workers' grievance, instead of the enterprise or its managers or anyone else legally relevant to the case. It recalls, naturally, the ancient tradition that the emperor as Son of Heaven has a duty to listen to his subjects when a great wrong harms them and his magistrates fail to safeguard justice. But the real impact, hence its juridical significance, of this re-politicization on the nation's collective consciousness is that it revivifies a modern tradition, namely the twentieth-century Chinese revolution. For the past three decades, China is said to have bid farewell to the revolution. In many aspects of social and economic life, as well as mainstream propaganda, this is largely true. Today the country is embracing a market economy with private ownership of the means of production and unhampered labor exploitation, fully engaged in international trade and competition, like a shameless, upstart venture capitalist.

Yet history is not entirely forgotten. As the workers utter the verses of the anthem or hold up portraits of Mao, the nation's memory returns. That is why the strikers denounced the unionist thugs who clashed with them as "yellow" saboteurs. Not that the unionists wore yellow caps and took orders from managers, but because people have not forgotten what Lenin once said of the socialist trade union. The union, he insisted, should become a school, where workers learn to manage their factories, supervise economic activities, participate in the governance of the country, and guard against bureaucratic corruption. In a word, as the Bolshevik leader famously said, the union is "a school of Communism."

In this connection, the anthem is bound to fill people's ears with the all-too-familiar words and melody of that hymn of proletarian revolution, from the Paris Commune of 1871, "The Internationale." For the verses of the anthem echoed those of Eugène Pottier, in the official Chinese version:

> Arise, ye slaves in hunger and cold,
> Arise, the poor of the world
> Oh slaves, arise, arise!
> Do not say we have nothing,
> We shall be masters under Heaven!

To achieve solidarity under the anthem, one would have to recall the ideal of the Paris Commune, that workers must act as "masters under Heaven." In jurisprudential terms, it can be said that the "freedom" the striking "masters" exercise is an avatar of solidarity embodying a kind of sovereign power (*quan*), rather than a "citizen's basic right" canceled by the Constitution 1982, now preserved in some international convention and labor law textbooks. In fact, the Nanhai strikers stated this very ideal in their *Open Letter*: "Our struggle for upholding 'quan' (power/authority/sovereignty/rights) is not for the benefit of the 1,800 workers in this factory only, but we are concerned with the 'quan' that benefits workers across our country, and we hope to set a good example of 'quan' being upheld by workers themselves."

The Chinese character "quan" is often rendered "right" in legal texts. But the monosyllabic root originally means a balance or steelyard, hence an act of weighing or judgment—hence power, authority, a situation of advantage, as well as an individual person's rights or a master's sovereignty. Here in the *Open Letter*, since "quan" refers to that of the working class and not of individual workers, the concept must not be limited to "rights" (*quan li*), with its textbook specifications, as interpreted according to statutory language and legal dogmatism. Rather, "quan" should be understood in the changing context of the Party-masses relationship, from the character's original and derivative semantic signification to the profound politico-legal ambience in the heart of hearts of peasant workers when they recall the Chinese revolution.

And that was their own revolution. It all started over ninety years ago, and one particular event is a reminder of their struggle today. On May 1, the International Labor Day of 1921, a young man named Mao Zedong spoke to the first labor unions of Hunan Province, who gathered with slogans written on red banners—"No labor, no food," "Workers are sacred," "Workers of the world, unite!" He urged the workers to strive for what he called the "three 'quan' of labor"—"quan" concerning their subsistence, labor, and harvest [of the fruits] of labor. Clearly, these were not recognized legal rights then, nor are they now. As Mao explained, the three "quan" mean that, first, not only workingmen and women are entitled to a decent living, but their families including children under eighteen and parents beyond sixty years of age. Everyone who is yet to enter the labor market or who has sold up labor should have the same entitlement, in accordance with the "precedent" that heaven grants the same rain and dew to herbs and trees, regardless of old or young, weak or strong. Secondly, for workers aged between eighteen and sixty, all are entitled to work. If for any reason the market does not have enough job openings, and some able-bodied workers have to stay "off duty," then it is the society's responsibility to feed them, since their unemployment is not a crime nor a sin. Thirdly, pursuant to the "No labor, no food" principle, all the fruits of labor shall belong to the laborer, though realistically, that is not the immediate goal of the labor union. This last "quan"—or weighing a judgment on everything for proper deployment of power, as the ancient philosopher Xunzi (ca. 313–238 BC) taught, cannot be fully realized unless the capitalist system is overthrown, both its mode of production and employment relationships. That, Mao informed the workers, was what people in Russia had already done, in solidarity.

When all these historical teachings are recollected in earnest, what should the strikers singing the "March of the Volunteers" mean to the supreme political "quan" of the land, the Party? Can the Party treat the "mass incident" as a "labor-capital dispute" and ask the disputants, the workers and management, to seek arbitration or go to the court, as experts recommend? Or simply ignore them? The answer is negative. For the question has to do with the very legitimacy of, or people's faith in, the Party's "unified leadership," which requires that "quan" be deployed on the principle of "serving the people"—as displayed at the front gate of every Party unit, in the Chairman's charismatic handwriting—and nothing else. So long as that principle remains operational in maintaining the stability of the Party-masses relationship, the Party will find no excuse to turn a deaf ear to the voice of the masses. For the sake of its own organizational survival, the Party has to admit that the peasant workers constitute the "masters under Heaven," even when, or because, they are going on strike.

Strikes go to the heart of the political foundations of modern China. In the West, too, they can reveal whether the terms of the social contract among workers and capitalists are really being observed—and begin a process to revise them. All over the world, the "management" of workers' dissatisfaction is being exposed as inadequate to the fundamental political questions lurking below. Our questions, then, are these: how long will the slogan "Serving the people" hang outside every Party unit, given the rampant bureaucratic capitalism in China today? And when that slogan falls off the gates, yet the strikes continue, will the three Maoist "quan" take its place on red banners again?

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The Century of Chinese Corporatism

REZA HASMATH APRIL 11, 2019

Since its foundation in 1949, the People's Republic of China has engaged with corporatism as a model for organizing societal interests. China's corporatist elements, misunderstood as they often are by foreign observers, help to explain its economic successes and political resiliency. Across a variety of different forms of corporatism—some heavy-handed, some too decentralized—China has managed to maintain the political buy-in of its major economic and social stakeholders through a combination of economic advance, partial liberalization, and increased international profile. This cooperation could not have been maintained without corporatist arrangements. In spite of expectations that China would shift toward the West's pluralistic model of interest group competition, China has reemphasized the importance of corporatist negotiation arrangements as it transitions to a mature industrial economy of global importance.

In the Anglo-American imagination, corporatism usually calls to mind the authoritarian or fascist dictatorships of the early twentieth century, and corporatism is often wrongly thought to be wholly incompatible with liberal democracies. While it is true that corporatism was co-opted as a strategy of choice by nondemocratic regimes such as Mussolini's Italy and Salazar's Portugal, it has also been successfully used in many different forms by postwar democratic governments, including the United Kingdom, the Netherlands, Germany, Sweden, and Japan. In the late 1980s, the Democratic presidential candidates Gary Hart and Michael Dukakis even suggested corporatism as a potential model for managing and mediating organized labor. Robert Reich, the secretary of labor during the Clinton administration, suggested the same.[1]

More recently, it has become something of a truism that U.S. leaders have misunderstood China and misjudged its political trajectory over the last few decades—just as they have been caught off guard by many important political and economic developments in the West. Part of the explanation for both failures is that American politicians have ignored the insights of corporatism, and have difficulty understanding corporatist models at home or abroad, whether in democratic or nondemocratic contexts.

In its most basic form, corporatism seeks to organize society into associations based on common interests (like business and labor) that work together to achieve harmonious results. The corporatist project is not a socialist one per se, nor on the other hand is it laissez-faire capitalism. Instead, as Alan Cawson once put it, corporatism offers a certain set of institutional mechanisms and structures in service of the state that can be applied across a wide spectrum of political regime types. In his own words, corporatism is

> a socio-political process in which organizations representing monopolistic functional interests engage in political exchange with state agencies over public policy outputs which involves those organizations in a role that combines interest representation and policy implementation through delegated self-enforcement.[2]

Or as Philippe Schmitter, the contemporary grandfather of corporatist theory, writes, corporatism is

> a system of interest representation in which the constituent units are organized into a limited number of singular, compulsory, noncompetitive, hierarchically ordered and functionally differentiated categories, recognized or licensed (if not created) by the state and granted a deliberate representational monopoly within their respective categories in exchange for observing certain controls on their selection of leaders and articulation of demands and supports.[3]

One of the essential elements of corporatism is that the state recognizes one association as the representative of a sector's interests. The state forms a partnership with the association, which generally occurs as a two-way relationship: the association is often asked for its position on current and prospective policies, as well as assistance to implement and execute policies.

The aim of corporatist models is to organize key segments of society into singular associations that mediate their members' interests. Even in the United States, many such associations already exist. A chamber of commerce, for instance, will represent business interests of all sizes and regions. This is how the U.S. Chamber of Commerce aptly describes its mission to represent the interests of more than three million U.S. businesses. Similarly, consider the example of the American Federation of Labor and Congress of Industrial Organizations (afl-cio), a federation of fifty-five unions representing more than twelve million working individuals, whose mission is to broadly advocate for labor rights.

The problem for nations without a corporatist model is that the direct mechanisms for engaging such associations in productive negotiation and collaboration, and for enlisting their assistance in implementing the government's policies and goals, often do not exist. Lacking a corporatist framework, pluralist systems use a model of organizing and relating interest groups that is characterized by divisive competition and conflict between various associations. Not only is such conflict tolerated, it is actively encouraged. Under pluralism, when the U.S. Chamber of Commerce and the afl-cio are at odds with each other (as often happens), one of their primary strategies is to bargain and lobby in a conflictual manner toward an outcome that may not fully please either side or serve the nation's overarching interests. Indeed, such conflict can often lead to suboptimal policy choices, particularly when viewed from the standpoint of the nation as a whole.

In addition, the pluralist-competitive model can engender distrust and even alienation among members of conflicting associations, while causing ambient distrust among the public. By contrast, the goal of corporatism is to encourage organized consensus and cooperation toward outcomes that serve the national interests.

When considering China, we must keep in mind that corporatism is not intended to be a complete account of the Chinese regime. Rather, it is an important and—in the West—often overlooked element that has changed and adapted through a number of different periods. In China's Maoist phase from the early 1950s to mid-1970s, corporatism took the form of an aggressive state-led effort to organize every aspect of society from the top down. But, contrary to the expectations of some observers, particularly those subscribing to core neoliberal tenets, corporatism remained an element of market reforms under Deng Xiaoping, Jiang Zemin, and Hu Jintao (1978–2012), and it remains an important element of policy (philosophically and practically) under the current regime, shepherded since 2013 by Xi Jinping.

All told, since 1949 China has tried a large number of successful and not-so-successful corporatist experiments. What these phases have in common is a "state corporatist" (top-down) approach, albeit with shifting degrees of state involvement; and in the present era, a snail's-pace effort towards building a "societal corporatism" (bottom-up), terms that I describe further below. Over the same time period, we have also witnessed a shift from a centrally controlled corporatist state to one in which the local state has greater space to implement corporatist techniques—allowing the formation of business and professional associations at the local level, and providing them a space for local, state-directed bargaining. But in spite of expectations to the contrary, China has become no less corporatist in the process; in fact, creeping pluralism in local forms of corporatism has prompted a rebalancing toward the interests of the nation as a whole.

As China embarks on its next decade, a consideration of Chinese corporatism is useful in two respects. First, foreign corporations and governments who engage with China, particularly if they come from pluralist-competitive societies, tend to misunderstand the nexus of businesses, organizations, and the state. They wrongfully presume that state direction and corruption are synonymous. A more nuanced understanding of Chinese corporatism, however, leads to an important second point—that some lessons learned by Chinese experiments in corporatism, during the very period of its ascent to becoming an economic superpower, may be beneficial for foreign policymakers considering paths for improving their own public institutions.

From State Corporatism to Societal Corporatism?

At its beginning seventy years ago, the People's Republic of China fashioned its corporatist template from the Soviet Union which, earlier in the twentieth century, had instilled corporatist elements into all aspects of the Soviet state. The key premise behind the Soviet and the then burgeoning Chinese model was that varying associational interests could achieve societal "harmony" with the state front and center. As the state led the Soviet Union and China through industrialization, the idea was that the state would be the "guardian of the common good," and of the "national interest that supersedes the parochial interests of each constituency."[4] In this approach, commonly called state corporatism, the Chinese state sought to develop close institutional arrangements with large associations in society.

In a socialist state such as China in the early 1950s, this project was rather difficult. In the early years of the People's Republic, the Chinese Communist Party (CCP) had effectively destroyed what existed of the private business sector, and virtually all industry was state-led under a socialist command economy. A "mass line" system, developed by Mao Zedong and the CCP, controlled associations called mass organizations that represented all the major social groups. Workers, for example, joined the All-China Federation of Trade Unions; youths joined the Communist Youth League of China; and women joined the All-China Women's Federation. This *hard* form of state corporatism was effectively a one-way, top-down transmission system between the CCP-controlled government and the masses, rather than a two-way conduit for grassroots interests to reach the CCP leadership.

This *hard* form of state corporatism underwent a profound shift in the late 1970s to a *soft* form, when the Chinese state engaged in large structural market reforms which, at least at a surface level, fostered a relaxation of the CCP's control over society. Neoliberal analysts outside of China—hoping for a universal shift towards pluralist forms of association—expected the relaxation of state authority to result in a simpler system of free association. The shift from a hard to soft form of state corporatism did not yield these expected results. Rather, it is best understood as a movement from *overt* to *tacit sanctioning* of interest associations, with the state holding a firm grasp on mediating societal interests.

Previously, under a hard form of state corporatism, overt sanctioning relied on coercion and propaganda to compel individuals and organizations to act in the desired manner. In post–market reform China, the state continued its key role as a coordinator of associations primarily by way of tacit sanctioning. In this approach, associations are allowed to function on their own, as a substitute for the state, with some important caveats. With the assumption that a conflictual-competitive system will hold back national economic priorities and damage the social fabric, the tacit sanctioning framework championed by the CCP followed this typical setup: (1) the state creates and maintains the relationship between organizations; (2) select organizations and groups are granted the privilege to mediate interests on behalf of their constituents before the state; and (3) these organizations and groups must adhere to the rules and regulations established by the state.[5] Mechanisms like these are now employed to bridge potential gaps between the state and society—for instance, in dealing with the new "red capitalists," party members who have built successful private enterprises.

This seismic shift in state-society relations in China should not be understated. Prior to the market reform era, virtually all enterprises were directly under state ownership. By the early 1990s, Deng Xiaoping declared an explicit policy of "grasping the large [state-owned enterprises] and letting the small go," in order to encourage market competition. While the central government retained control of the most strategically important state-owned enterprises—adopting a "commanding heights" model (*mingmai hangye*)—it relinquished control over the smaller ones.[6] Although the central government has shown a reluctance to definitively label the industries belonging to the *mingmai hangye* due to the political sensitivity of the issue, these industries are generally thought to include defense, the power grid, petroleum and petrochemicals, telecommunications, coal, civil aviation, and shipping. By 1993, seven of China's industrial ministries had been eliminated, and the majority of these ministries—e.g., the Ministry of Light Industries and the Ministry of Textiles—were transformed into associations.[7] The industries considered essential to the national interest thus remain guided by the state, while a considerable degree of free activity is permitted in other areas where central direction is less necessary or efficient.

Far from leading to a general decline of corporatism, the shift ushered in an era of pioneering strategies to employ corporatist practices. The implications of these actions were twofold: First, while the state stepped back from its early hard form of state corporatism, it retained indirect control of the affairs of associations, with an eye toward maintaining economic advancement and social stability.[8] Among the seven industrial ministries eliminated in the 1990s, for example, the majority of officials from these ministries were transferred to the new associations. Rather than fully tearing down the ministries, the previous forms of government expertise were redeployed in a new arrangement. The associations were thus able to retain their allegiance, trust, and close relationship with the government. Second, the shift towards a soft state corporatism provided space in which the *local* state could restructure, privatize, or shut down state-owned enterprises.[9] In effect, China had shifted to a more sophisticated federalist corporatism.

As China entered the World Trade Organization, and during the even greater liberalization of China's economy in the 2000s, many analysts and scholars imagined that China would move toward a form of corporatism that could be enforced voluntarily—a societal corporatism, so to speak.[10] The society-led form of corporatism was commonly found in other East Asian nations such as Japan and South Korea, which had already, more or less, transitioned from state to societal corporatism.[11] In a societal corporatist framework, institutionalized bargaining between an association's interests and the wider public's interests is shaped from bottom-up, grassroots efforts rather than the top-down model proper to state-led corporatism. Many analysts hoped that Chinese business associations and labor unions would begin to behave more like those in other East Asian countries, and be primarily influenced by their grassroots, constituent members.

Nevertheless, suggestions that there is (or is about to be) a transition from state to societal corporatism in China misses the point. The guiding philosophy and approach of the Communist Party of China, and the current Xi Jinping government, is one in which the state will be the final arbiter of institutional relations—whether through overt sanctioning or tacit sanctioning.[12] Even if a weaker or more fragmented form of corporatism comes to pass, the state is still, strictly speaking, the ultimate entity that mediates Chinese society's larger interests. The reasons China has held onto forms of state corporatism become evident when we consider how market liberalization has actually played out at the local level.

Local Corporatism and the Drift from National Priorities

While the CCP-controlled state has shaped every major aspect of contemporary Chinese society, the growing liberalization of the economy and the increasing complexity of social issues might suggest that the state is retreating from an array of issues.[13] Yet a survey of China's political landscape today shows that this analysis does not fully reflect reality. Not only is the central state playing an active and critical role in managing social problems, but the local state has become an important actor.[14] In fact, it is the local state that has been emboldened to engage with actors such as business associations and nongovernmental organizations. Instead of a "liberalization" of economic negotiation along Western pluralist-competitive lines, China showed that the local state could also foster corporatist arrangements while maintaining governmental guidance on the shape of the economy. Recent moves toward recentralization are best understood in this context—as a bolstering of national economic goals after local forms of economic planning had begun to be counterproductive.

During China's decentralization from the mid-1990s through the early 2010s, local states were given the power to make, and expected to make, a wide range of decisions, as well as take on added governance responsibilities. This led to hopes that a societal corporatism would emerge at the local level. One eager analyst, when looking into China's anti-dam movements (particularly at Three Gorges and Nujiang) and the role of NGOs in the process, observed that society's ability to challenge the local state had intensified.[15] And in the case of homeowners associations at the subnational level, their contentious behavior suggested to some analysts that China was turning toward a societal corporatist framework, since such associations provided an opportunity to organize at a grassroots level, resist, and pressure the local government.[16]

But the reality has been far different. While the local state did engage with societal actors, the local state was driven by its own interests[17] and, in true state corporatist fashion, picked strategic "winners" to back in certain industries.[18] There was little room for a full-blown societal corporatism, although a few signs, like the anti-dam movements and homeowners associations, briefly pointed in that direction.

The real political alternatives in China are not centralized state corporatism on the one hand and decentralized pluralism on the other. In fact, the local state has come to play a crucial role in the state direction of business interest negotiation. In that process the local state has itself become an important economic actor. Urban and rural industrialization have heavily relied on the local state as a business corporation.[19] Local officials have acted as entrepreneurs, fostering business opportunities, mobilizing resources and other agencies within the local state to nurture selected business enterprises. Fiscal reforms provided incentives for local officials to actively promote local industry and economic development of their region since they had residual claimant rights over enterprise profits (although national regulations stipulated no more than 20 percent of after-tax profits could be claimed by the local government).[20] In addition, there has been an intimate relationship between banks, finance and tax offices, and township and village authorities, whereby each would assist the other to maximize revenues.

Regardless of the fact that the local state was broadly successful in facilitating economic reform, the potential for local officials to engage in rent-seeking and predatory behavior was inevitably present in this system.[21] Even though local associations' activities continued to fit the definition of corporatism on paper, the pursuit of local interests provokes a larger and important question: what happens if the local corporatist state's interests are at odds with the central corporatist state's interests? Normally, corporatism is predicated on fostering organized consensus and cooperation between associations (representing society) and the state with an explicit goal of serving the larger national interests. What happens if the interests at the subnational level are at odds with the national one?

Arguably, it was just such a state of affairs that Xi Jinping inherited when he came to power in the mid-2010s. Decentralization and the wavering shift towards a (hybrid/pseudo) societal corporatism did not necessarily lead to optimal outcomes. In many cases, the local state was given power to act in a corporatist manner for the sake of economic efficiency and social harmony, but the result had been a rise in local corruption and a disjunction between the local state and national priorities. Xi's response was a vast and swift anti-corruption campaign that was used as a rubric to reconcentrate power in the central government's hands. Contrary to the dominant narratives in Western media, the goal was not a power grab pure and simple, but rather having the national interests and not local ones take precedence.[22] The shift toward local corporatism had begun to show some of the symptoms commonly associated with pluralist systems—local dysfunction and a lack of national coordination to achieve larger goals and interests.

The Lessons of Chinese Corporatism

As China's global ascendency matures into the middle of the twenty-first century, Western observers need to become better equipped to understand and navigate the central and local corporatist state in China. This need is especially vital in a climate of ongoing U.S.-China trade disputes.

Due to the absence of corporatism in the Anglo-American world, many Western participants have misunderstood Chinese businesses' corporatist relationship with the central and local state. This misunderstanding is reflected in how U.S.-based actors seek to influence China's domestic policymaking via Western-style interest group lobbying techniques. Such overt political bargaining or lobbying, outside of the bureaucratic state structure, is generally against the rules of success in the Chinese corporatist context.[23] Although pluralist-competitive lobbying has proved fruitful on occasion, it is widely perceived as an oddity in China, and Chinese authorities seldom concede vital elements of the policymaking process to private interest groups.[24]

Chinese associations generally try to influence policy decision-making through mutual, harmonious agreement rather than open opposition and confrontation. Understanding the operations of the Chinese corporatist state, and its complex relationship with societal associations, allows actors to better influence the state, so long as the goals sought are congruent with overall national interests. This harmony is the true ethos of corporatism—and it is a lesson that actors embedded in political life should seek to understand with greater appreciation.

Understanding state-society relations in China through a corporatist lens also allows us to understand why and when the Chinese state has chosen to reassert more centralized guidance over national economic life. To be sure, the process of economic liberalization has modified the tools available to the central state and local states for managing the economy and society. Both have moved from an overreliance on coercion and propaganda to the current tacit sanctioning strategy of developing close indirect ties with the main actors of society. But it is ultimately the state that mediates societal interests. Once China's trajectory is understood as continued experimentation with models of corporatism—rather than as the progressive embrace of liberalism—the developments of recent decades become much easier to understand.

Corporatism, whether state-centric or societal, proposes that organized consensus and cooperation is needed, rather than a competitive and conflictual bargaining process. "Harmony" is paramount in this conception, whether in a top-down state model or in a bottom-up, grassroots form. National goals and interests take primacy over the local state or associational interests. Rather than seeing corporatism as a heavy-handed imposition, however, we should think of corporatist relationships as finding ways to encourage trust among different economic stakeholders and social participants. In properly functioning corporatist arrangements, ordinary citizens and members of associations can see more clearly how the state is trying to mediate, balance, and execute a variety of interests. It is thus not surprising that Chinese citizens and associations continue to have a high degree of trust in the central state.[25] The fact that many of the association members are CCP members,[26] or former central and local state government officials, who have an intimate understanding of the organizational behavior of the state, also helps in this process.

In the United States, by contrast, trust in government is at a historic low. According to the latest Pew survey, only 17 percent of Americans trust the federal government to do what is right, "just about always" (3 percent) or "most of the time" (14 percent).[27] A pluralistic system predicated on competitive interest group lobbying does not invite the requisite trust necessary for a fruitful partnership between the state and the various segments of society. Suffice it to say, declining institutional trust is a major problem in the current environment and likely will remain one for the foreseeable future. Americans may need to engage with corporatist models not simply to better understand China, but to deal with even greater challenges at home.

[1] Ira C. Magaziner and Robert B. Reich, *Minding America's Business* (New York: Vintage, 1982).

[2] Alan Cawson, *Organized Interests and the State: Studies in Meso-Corporatism* (Bristol: Sage, 1985), 8.

[3] Philippe Schmitter, "Still the Century of Corporatism?," *Review of Politics* 36, no. 1 (January 1974): 93–94.

[4] Jonathan Unger and Anita Chan, "China, Corporatism, and the East Asian Model," *Australian Journal of Chinese Affairs* 33 (January 1995): 30.

[5] Jennifer Y. J. Hsu and Reza Hasmath, "The Local Corporatist State and NGO Relations in China," *Journal of Contemporary China* 23, no. 87 (2014): 522.

[6] For further information see Sarah Eaton and Reza Hasmath, "Economic Legitimation in a New Era: Public Attitudes About State Ownership and Market Regulation" (paper presented at the European Political Science Association, Milan, Italy, June 22–24, 2017).

[7] Jonathan Unger and Anita Chan, "State Corporatism and Business Associations in China: A Comparison with Earlier Emerging Economies of East Asia," *International Journal of Emerging Markets* 10, no. 2 (2015): 184–85.

[8] Unger and Chan, "China, Corporatism, and the East Asian Model," 37.

[9] Chang-Tai Hseih and Zheng (Michael) Song, "Grasp the Large, Let Go of the Small: The Transformation of the State Sector in China," *Brookings Papers in Economic Activity* (Spring 2015): 295–346.

[10] During the global height of neoliberalism, largely characterized by the Washington consensus, China maintained its state-centric approach in some

form or another. Indeed, a popular version of Chinese public policy came to be called the "Beijing Consensus." For further information, see Reza Hasmath, "White Cat, Black Cat or Good Cat?: The Beijing Consensus as an Alternative Philosophy for Policy Deliberation," *China's World* 2, no. 1 (2017): 12–24.

[11] It should be noted that, in the context of Japan and South Korea, corporatism is often married with conceptions of a developmental state, whereby the state has dominated industrialization and, subsequently, the majority of social actors have been co-opted to focus on this national goal.

[12] Reza Hasmath, "Red China's Iron Grip on Power," *Washington Times*, November 9, 2012.

[13] Jennifer Y. J. Hsu and Reza Hasmath, eds., *The Chinese Corporatist State: Adaptation, Survival and Resistance* (London: Routledge, 2013).

[14] The local state structure is defined as the "organization of local government," while local state practice denotes "the way local governments implement central policy and make and implement their own policy in the absence of higher-level guidance." For further information, see Elizabeth J. Remick, "The Significance of Variation in Local States: The Case of Twentieth Century China," *Comparative Politics* 34, no. 4 (July 2002): 399.

[15] Teh-Chang Lin, "Environmental NGOs and the Anti-Dam Movements: A Social Movement with Chinese Characteristics," *Issues and Studies* 43, no. 4 (December 2007): 178.

[16] Benjamin L. Read, "Assessing Variation in Civil Society Organizations: China's Homeowner Association in Comparative Perspective," *Comparative Political Studies* 41, no. 9 (September 2008): 1240–65.

[17] Andrew Walder, "The County Government as an Industrial Corporation," in *Zouping in Transition: The Process of Reform in Rural North China*, ed. Andrew G. Walder (Cambridge: Harvard University Press, 1998), 62–85.

[18] Marc Blecher and Vivienne Shue, "Into Leather: State-Led Development and the Private Sector in Xinji," *China Quarterly* 166 (June 2001): 368–93.

[19] Jean C. Oi, "Fiscal Reform and the Economic Foundations of Local State Corporatism in China," *World Politics* 45, no. 1 (October 1992): 99–126; and "The Role of the Local State in China's Transitional Economy," *China Quarterly* 144 (December 1995): 1132–49.

[20] Oi, "Fiscal Reform," 111.

[21] Jane Duckett, *The Entrepreneurial State in China: Real Estate and Commerce Departments in Reform Era Tianjin* (London: Routledge, 1998).

[22] Jessica C. Teets, Reza Hasmath, and Orion A. Lewis, "The Incentive to Innovate?: The Behavior of Policymakers in China," *Journal of Chinese Political Science* 22, no. 4 (2017): 505–17.

[23] Reza Hasmath and Caleb Pomeroy, "Convergence and Divergence amongst China's Foreign Policy Think Tanks" (paper presented at the

American Political Science Association Annual Conference, San Francisco, August 31–September 3, 2017).

[24] Stefanie Weil, "The Strange Case of Pluralist Lobbying in a Corporatist Setting: Defending Western Business Interests in China," *Business and Politics* 20, no. 1 (March 2018): 70–97.

[25] Andrew MacDonald and Reza Hasmath "Does Ideology Matter for the Citizenry in China?: Public Attitudes and Preferences for Economic Policies" (paper presented at the Midwest Political Science Association Annual Conference, Chicago, April 5–8, 2018). See also Wenfang Tang, "The 'Surprise' of Authoritarian Resilience in China," *American Affairs* 2, no. 1 (Spring 2018): 101–17.

[26] For example, an increasing number of private entrepreneurs are members of the CCP and/or participate in the People's Political Consultative Conference. For more information, see Keming Yang, "Keep Business for Business: Associations of Private Enterprise in China," in *The Chinese Corporatist State*, 66–82.

content. In today’s climate of widespread misinformation, Outline empowers readers to verify the facts.

The China Model's Challenge to Democratic Capitalism

DANIEL LURIA DECEMBER 21, 2019

In 1930, John Maynard Keynes imagined the end of capitalism, which he predicted would arrive about a hundred years into the future:

> The love of money as a possession—as distinguished from the love of money as a means to the enjoyments and realities of life—will be recognised for what it is, a somewhat disgusting morbidity, one of those semi-criminal, semi-pathological propensities which one hands over with a shudder to the specialists in mental disease. . . . There will be ever larger and larger classes and groups of people from whom problems of economic necessity have been practically removed.[1]

It has not turned out that way. And yet, this last year has witnessed an astonishing turnabout from the recent past, in which scholars and pundits generally accepted the "End of History" conclusion that liberal capitalism had firmly established itself as the stable order toward which the arc of economic history bends. In its first issue of the new decade, *Foreign Affairs* pondered "The Future of Capitalism" and particularly the impact of inequality on that future. In its lead article, Branko Milanović raised the possibility that the democratizing role of global capitalism is fading, replaced by competition between a resurgent national capitalism and a state capitalism characterized by central planning and reduced personal and political freedom.[2] This point was further developed in Nicholas Lemann's review of *The Meritocracy Trap* in the same issue.[3] For its part, *American Affairs*'s final issue of 2019 included a collection of articles under the heading "Feudalism, Capitalism, and Socialism" that covered similar ground. Joel Kotkin documented how the ultrarich's share of property ownership looks a lot like what "anchored both the medieval aristocratic and ecclesiastical classes."[4] Julius Krein provocatively suggested that even well-compensated professional and technocratic elites have been proletarianized by the oligarchs of the top 0.1 percent.[5] In a recent profile in the *MIT Technology Review*, even Robert Solow, who received a Nobel Prize for his work measuring the effects of technology on productivity, openly scorns the supposed wisdom of "free markets," asserting instead that "new policies are needed to rebuild a healthy middle class, including better workers' representation in firms and a tax code that benefits labor. . . . Our policies, not just our technologies, are dramatically affecting work, careers, and income inequality."[6] Once seen as uniquely dynamic, Western capitalism has come to be seen instead as exhausted and even illegitimate.[7]

All of these articles pondering the state of our economic system trail by four years a provocative—if lightly read—book by the German sociologist and political economist Wolfgang Streeck. He posited that the lack of coherent opposition to a failing, "sclerotic" capitalism had created a void in which there was nothing but a dilapidated, neo-feudalist social order characterized by oligarchic corruption and dwindling public purpose.[8] Today, signs of this ugly new model's emergence are visible nearly everywhere.

This article is part diagnosis, part prognosis, and part prescription. As nonacademic research economists from the financial sector and the labor movement, we are skeptical that a recognizably democratic capitalism can withstand the assault both from the ascendant neo-feudal oligarchy model elucidated by Streeck and from the explicitly statist, centrally planned Chinese model. (As for oligarchy, it is not really as new as it seems in America: its long history was arguably interrupted only briefly in the 1933–80 period, during which the nation moved haltingly toward social democracy.[9]) We argue that the new feudal model will be principally characterized by the conflict between preserving wealth and funding future economic growth, and we examine how its emphasis on the former discourages entrepreneurship and will likely lead to poor economic performance. Finally, we discuss some more egalitarian alternatives.

Why China Wins

We begin with our conclusion: China has surpassed or will soon surpass the United States in many key dimensions, including economic growth, health care, education, 5G network rollout, and the development of artificial intelligence. Today, 103 years after the Russian Revolution, central planning can finally be effective and strategic, thanks to the volume of available data and—even more important—the models and algorithms available to make sense of those data. Data-dependent algorithms today schedule buses and trains, select medication based on patients' genetic markers, set time-of-day electricity prices, and much more. No less liberal and market-oriented an authority than the editorial staff of the *Economist* has admitted that Big Data may well have changed the prognosis for "socialism":

> The operations room of "Project Cybersyn" (short for "cybernetics synergy") was created by Chile's president Salvador Allende in the early 1970s as a place from which the country's newly nationalised and socialised economy could be directed. . . . Allende had thought that, with state-of-the-art 1970s communications and computers, it would be possible for government to optimise an industrial economy. . . . The success of market- and semi-market-based economies since then has made the notion of a planned economy seem like a thing of the past. But were a latter-day Allende to build a Cybersyn 2.0 it could now gather data via billions of sensors rather than a few telex machines, and crunch them in data centres with tens of thousands of servers. Given enough power, might it not replace the autonomous choices on which the market is based?[10]

But the ability to plan effectively is not enough. In addition, as Keynes noted frequently, there must be a coherent set of goals, a destination that is understood and—whether through mass support or coercion—economic actors marching toward them. From these goals and their broad support comes China's track record of launching new homegrown industries. Consider electric vehicles (EVs). Forecasts project such vehicles will account for 15–20 percent of all cars and trucks sold in the United States in 2030; in China, they will make up 80–100 percent.[11] Why? Quite simply, because the Chinese government requires it. The state can set fuel prices at levels that will make EVs desirable, mandate their production, guarantee a nationwide charging infrastructure, and force regional authorities to ban non-EVs from streets and roads.

Nor are EVs an isolated case. The hybrid command economy has already achieved equally dramatic breakthroughs in energy extraction, power generation, solar cells, aerospace engineering, and the construction of shipping ports and dams throughout China. And it increasingly extends these achievements across much of Asia and Africa, where China is making state-directed or state-catalyzed investments on a scale the United States has not even attempted since World War II. Not only, as we discuss below, do China's continuing public investments dwarf those of the United States and the European Union relative to the size of their economies; this investment is also guided by a unified strategy that aims at increasing the living standards of its people by ensuring that China dominates the key technologies of the future. Literally thousands of investments and de facto loan guarantees are made each year, creating whole new cities that specialize in particular technologies.

The scale of China's investment is staggering. In 1970 gross capital formation was 21.4 percent of GDP in the United States and 25 percent in China. In 2018 it was 21 percent in the United States but 44 percent in China. About one-third of China's 2018 capital stock was due to direct government investments, but two-thirds was private investment.[12] The unchallenged power of the central state to make, guide, and catalyze those investments is a huge advantage. China can also mobilize resources quickly: earlier this year, it built a thousand-bed hospital in which to quarantine and treat coronavirus victims in Wuhan—in just six days.[13] In the United States, that would be an impossibly tight schedule even for getting a building permit.

The state can command both state-owned companies and private, profit-motivated ones to undertake major expansions, and those companies can enjoy full confidence that the additional production capacity will be put to use. Of course private construction companies run by Communist Party members have an advantage, but this comes at little or no cost to the efficiency of the projects on which their companies work. In the West, greater political freedom often manifests itself as the freedom to block an investment from ever being made or to run up its price. If Chinese businesses must play nice with the local or regional Communist Party, Western businesses must play the same game with lenders, insurers, and regulators, not to mention politicians. If they are in large-scale real estate development in big cities, they often must get along with more clandestine players, sometimes tapping the laundered funds of foreign oligarchs to avoid relying too much on the regulated financial sector.

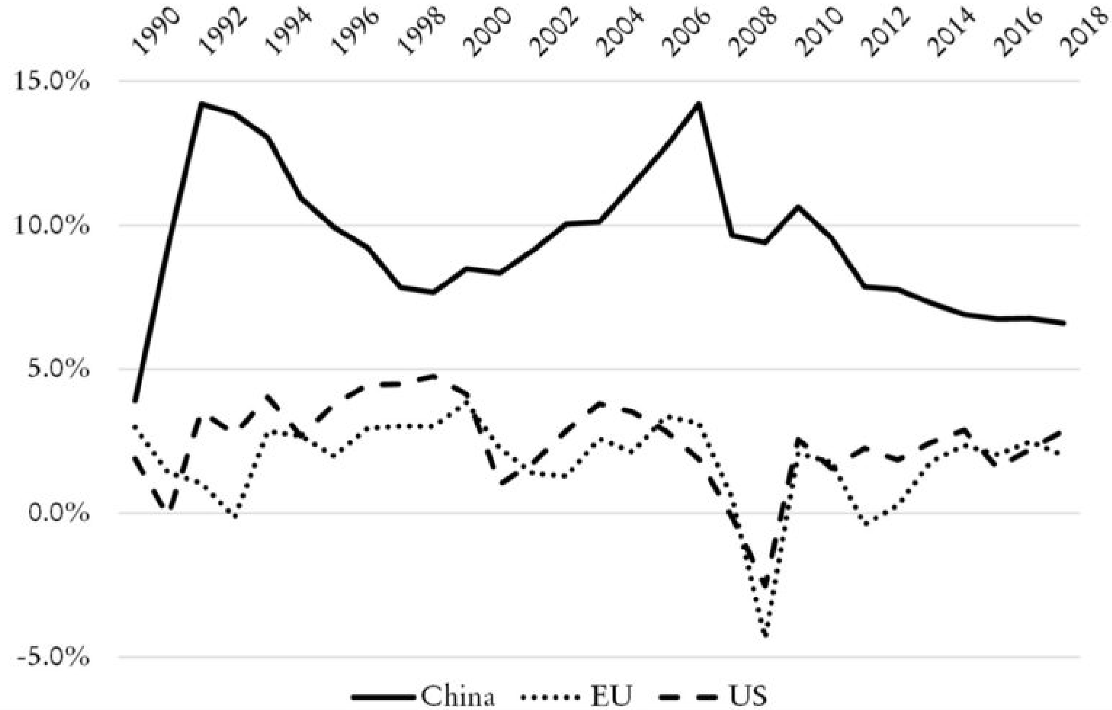
In the United States, public investment almost always collides with private interest. Elite-dominated "civic" organizations raise nimby objections to both public and private investments, even if they promise social benefits. For example, millionaire Nantucket homeowners banded together to kill an offshore wind farm that would have blocked their pristine ocean views. The projects that do go forward take years to execute and nearly always cost significantly more than their initial estimates. For example, the new Freedom Tower at One World Trade Center cost $4 billion and took eight years from the first day of construction to the first tenant's occupancy, both twice the initial estimate.[14] The additional costs generated by the litigious culture of Western societies (especially of the United States) also constitute a serious barrier to any substantive new development. Private developers therefore work hard to capture local government in order to reduce these costs. Worse, what little public investment is made here is not tied to any particular set of strategic goals, but at best aims at providing minor economic stimulus through a few "shovel-ready" projects.

Tolerating Failures: The State as Macro-Scale Venture Capitalist

Of course, even with the full backing of the state, some of China's big public investments don't pan out. In the United States, however, every visible government investment is subject to being tagged as the next Solyndra and held up as proof of government's incompetence and the market's superiority. In China, on the other hand, such failures are understood as the inevitable (and quite minor) downside of a largely successful strategy that has yielded 5–13 percent annual GDP growth for three decades and has provided its people with affordable shelter, education, medical care, sanitation, and world-class trains and public transportation.

In three short decades (1988–2018), China's real per capita GDP has risen 700 percent from barely $1,000 to about $8,000. For the world as a whole, real per capita GDP grew from roughly $7,000 to just under $11,000, or 57 percent in the same period.[16] If China is excluded from the global numbers, the increase in the rest of the world was from $8,180 per capita to $11,350, or just 38 percent. And in the West, a significant percentage of that relatively paltry growth went to the top 1 percent and especially the top 0.1 percent.

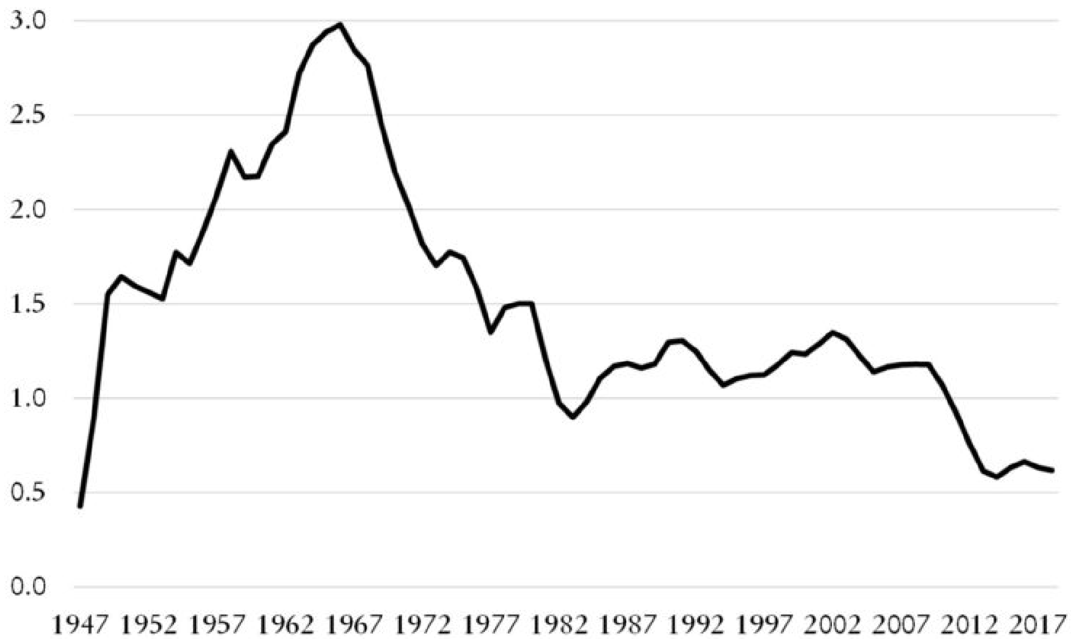
Comparative Growth Rates in Real GDP[15]



Of course, China's 700 percent increase in real per capita GDP began from a low base and has had multiple drivers, among them burgeoning net exports to the West and, no doubt, an ample amount of intellectual property theft. But no reasonable analyst can ignore the catalytic role of huge public investments. Imagine what American infrastructure, education, R&D, and productivity would look like if our federal government had invested even half as heavily as China did during the last thirty years. We in the United States—and, increasingly, in many other Western nations as well—don't build transit systems and other infrastructure at anywhere near pre-1980 rates. We don't even keep up on the maintenance of roads, bridges, dams, sewer systems, or water treatment plants. We look more and more like the Third World, sharing their high Gini coefficients and allowing a relative handful of rich people to prosper even as the underpinnings of majority living standards are allowed to erode. By leaving almost all investment decisions to private actors, we fail to mobilize the wealth already in hand, which was a major fear of Keynes. Warren Buffett's Berkshire Hathaway sits on $128 billion because it cannot find any companies to buy at bargain-basement prices. Nor is Buffett the exception: nonfinancial corporations in the United States are sitting on roughly $3 trillion in cash.[17]

Except for military procurement, the U.S. government has been AWOL from the productive economy since the mid-1970s, when the nation's last full-blown transit systems, California's Bay Area Rapid Transit system and the D.C. Metro, opened. Between 2010 and 2015, China's average annual infrastructure investments came to $1.15 trillion or 8.3 percent of GDP. For the United States in the same period, such investments averaged just $483 billion or 2.3 percent of GDP.[18] If we look beyond infrastructure spending to all nondefense federal government investment, the trend is even worse: it has fallen by two-thirds since the mid-1960s and by half since just 2002.

U.S. GOVERNMENT NONDEFENSE INVESTMENT AS A PERCENT OF GDP[19]



Nor is there any reasonable prospect of this changing soon. Except in the military economy, the crucial government functions required for monitoring and guiding policy have been massively hollowed out. Even the Washington office buildings in which they were long housed are now mainly occupied by lobbying firms, law firms, corporate government relations offices, and partisan think tanks. Many of these, to be sure, are reputable operations; but most are either servants of oligarchy or defenders of rent-seeking professionals.

Oligarchy Trumps Liberal Capitalism

The core of the problem is the accelerating ability of the richest 0.1 percent of American families to claim most of the economy's increasingly meager growth. In the United States, and increasingly across the European Union as well, the ultrarich possess more and more of the total wealth and of both pre- and post-tax income. This is problematic, as we will show, because as a group they are "investing" their burgeoning wealth in ways that fail to spur growth and employment. As a result, all but a relative handful of oligopolies and larger companies—mainly the faangs (Facebook, Amazon, Apple, Netflix, and Google)—find themselves starved for affordable capital and forced, if they can borrow at all, to pay near-double-digit rates or even give up equity, at a time when official interest rates are at record lows. For lenders, it comes down to risk and reward, and a shift toward higher-yielding private credit markets, as opposed to traditional commercial lending, driven by the wealthiest investors.[20]

The owners and managers of big American oligopolies may claim to be personally appalled by the violation of liberal norms on the part of populists like Donald Trump and Jair Bolsonaro. But they are hardly demanding a more egalitarian social contract or taking steps to address the social and economic conditions that give rise to populism. Instead, they are resolutely resisting trade unions (spending $340 million on union avoidance in 2018 in the United States alone)[21] and capturing what used to be labor income at record rates, even as they lament tariffs that add uncertainty to global trade. The U.S. model emphasizes tax cuts, the gutting of regulations and safety-net programs, and ceaseless, if groundless, warnings about the coming insolvency of "entitlements." Most big U.S. companies are spending the bulk of their recent trillion-dollar tax cut not on new investment but instead on stock buybacks. Following the tax law passed in late 2017, U.S. companies set a record by using the windfall to repurchase $1.09 trillion of their shares in 2018. They followed that up with the second-biggest buyback ever the following year, spending an additional $900 billion and further driving up share prices.[22] Since the bottom 50 percent of the income distribution does not even own stocks and the top 10 percent owns 84 percent of tradable shares of U.S.-based companies,[23] this nonproductive corporate behavior drives financial market bubbles that generate yet more inequality.

Financing Inequality: Preserving Wealth versus Funding Growth

Until the 1980s there was a reasonably robust set of pathways for wealth to make its way into the U.S. economy. In the 1990s, however, a great consolidation began. According to the Securities and Exchange Commission, in 1987 there were fully ten thousand broker-dealers, groups of professionals seeking out opportunities—some proven, some less mature but more exciting—to invest the money under their management. Today, by contrast, there are likely fewer than 3,900 broker-dealers.[24] This consolidation in wealth management has been amplified by the appearance and growth of index funds in recent years. According to *Bloomberg Businessweek*, the portfolios of the three biggest indexing companies (BlackRock, Vanguard, and State Street) hold about 22 percent of the shares of the typical S&P 500 corporation.[25] To be clear, the "investments" made by such companies are simply bets about the level of the S&P and other indices; they do not provide capital to the actual companies whose share prices make up the index. "As millions of investors have done the most sensible thing financially," *Bloomberg* notes, "they've also concentrated shareholder power," generating concern about capital concentration and its harm to consumers and workers.[26]

Smaller banks, once a crucial source of capital for subnational businesses, have been badly squeezed: the number of commercial depository banks in the United States plunged from 14,400 in 1984 to fewer than 4,600 in mid-2019.[27] Private credit is supplanting depository institutions, and private equity is playing a significant role in taking companies out of public markets and concentrating their ownership in private hands. Unlike the core financial services industry of the pre-1980s period, private managers typically do not broadly survey the economy for start-ups and growth companies. Instead they only bet on a small slice of the nation's companies (contributing greatly to the overvaluation of the faang corporations) and spend most of their time making speculative trades trying to beat the S&P's yields through shorting, arbitrage, financial engineering, and participation in direct lending activities—the so-called shadow credit market, where rates are often two to three times the major banks' rates.[28]

Private equity and private credit funds are not the only cause of the disintermediation of the past few decades, nor are they the only culprits in the development of a financial services industry that is failing to mobilize wealth for the benefit of the broader economy. As the rich get richer, more and more of them see little reason to pay large fees to brokerage houses or to hedge, credit, and equity fund managers. Instead, they are opening *family offices*, in which a relative handful of managers working on behalf of ultra-high-net-worth families look for a small number of deals into which to put a few billion dollars at a time. Such family offices now run upwards of $9 trillion. Compared to pre-1980s Wall Street, these offices do not have a deep bench of analysts scouring dozens of economic sectors; instead, even more than hedge funds, they focus primarily on safe bets, typically trading in a narrow set of blue chip bonds and equities. At the same time, they are leading the shift of more capital out of public markets. So-called direct investments now account for approximately 40 percent of total family office investments, a proportion that is expected to grow as funds shift out of public securities and into higher-yielding, less-liquid assets. Coinvestment deals involving multiple rich families are becoming more popular, which will move even more wealth out of the broader capital markets.[29]

This should come as no surprise; these family offices' charge, after all, is not to expand the economy but to preserve the wealth of their rich investors. It is equally unsurprising that one of the things at which some family offices are quite skilled is placing money offshore. As more and more wealth resides in fewer and fewer hands, the central purpose of "investment" changes from looking for ways to grow the economy to trying to preserve stocks of wealth that are already as large as their owners will ever need. With interest rates negative in much of Europe, the flight from risky investments is taking on some bizarre forms: in Switzerland, some billionaires reportedly are moving cash out of bank accounts paying –0.75 percent per year and into home safes in hardened rooms and other proverbial mattresses.[30]

Starving the Innovators

The firms that dominate Wall Street today (JPMorgan Chase, Bank of America, Citibank, Goldman Sachs, Morgan Stanley, BlackRock, Vanguard, and Fidelity) have consolidated the financial services industry into what amounts to a capital-hoarding oligopoly. As a result of their tremendous size, their corresponding need for operating leverage, and the increase in risk-adjusted capital requirements for the banking business, these firms can no longer afford to service those far below the top 0.1 percent who need a place to put their savings; instead they have to "reinvent banking" for the ordinary investor and saver through financial technology and other automated services. This consolidation of financial institutions is now in its third decade, with traditional Wall Street also bleeding jobs due to consolidation, disintermediation, and the "reinvention" of banking. Allana Akhtar recently predicted in *Business Insider* that "the 2020s could be an apocalyptic decade for Wall Street as artificial intelligence takes over the most popular jobs in finance. . . . Jobs in banking are some of the most sought-after for job seekers—but plenty of roles may not be around much longer. Algorithms that model prices or build portfolios could wipe out six million high-paying jobs in finance." She notes the warning of Cornell professor Marcos Lopez de Prado, who recently told the U.S. House Committee on Financial Services that, while artificial intelligence might not replace jobs entirely, few current finance employees are trained to work alongside new technology. His testimony aligns with a 2019 IHS Markit

Report which forecast that 1.3 million U.S. finance jobs—particularly among stockbrokers, fund managers, and compliance and loan officers—could disappear by 2030.[31] The Brookings Institution found that white-collar employees in tech and finance are "more susceptible to AI job loss than social workers, teachers, or cooks."[32]

For the U.S. economy this implosion of diversified investment and broad lending, and its replacement by a burgeoning sector focused on very specific investment opportunities and mere wealth preservation, is quite disastrous for smaller firms and, crucially, for new ones. Consider the following developments[33]: (1) New businesses represent a declining share of total businesses. According to U.S. Census data, new firms represented as much as 16 percent of all firms in the late 1970s. By 2011, that share had declined to 8 percent.[34] (2) Not only are there fewer new firms, but those start-ups that do exist are creating fewer jobs. The gross number of jobs created by new firms has fallen by more than two million.[35](3) Start-up activity has been subdued across the country since the Great Recession. Firm entry rates were lower between 2009 and 2011 than they were between 1978 and 1980 in every state and in all but one Metropolitan Statistical Area.[36]

All but the largest firms are starved for funds or forced to pay exorbitant rates to borrow. As younger, smaller firms stagnate and fail, favored oligopolies and larger companies—which had access to vast pools of capital when they were young and dynamic—get bigger and bigger, yet less and less innovative, hoarding cash and buying out potential competitors. These developments in the financial services sector since the early 1990s have starved American innovation, denying needed funds both to the innovators and to the entrepreneurs that commercialize their inventions and thereby create jobs.

Timing Is Everything: China's Superior Model

The resulting system is not only growth-inefficient for the private sector but also data-inefficient for both the private and public sectors. Amazon, having bought Whole Foods, plans a few fully automated grocery stores; in China, however, nearly all transactions at all stores flow through the newly allied Alibaba and TikTok apps on consumers' handheld devices. This data-driven economy permits central capture of every detail of supply and demand, including the time it took for a given consumer to reach the store on a bus or train (since the same device also holds data from transit ticket purchases). Not only is the data "big"; it is also complete and—crucially, if perhaps worrisomely—fully visible to the state for planning purposes.

Armed with coherent goals, comprehensive data, and powerful analytical tools, the Chinese state has put Keynes on steroids, investing massively to dominate a global future of clean energy, electric cars, aircraft, facial recognition, 5G and 6G telecommunications, and the broad application of artificial intelligence. U.S. trade negotiators demand that China abandon its industrial policy and subsidies, and scale back its ambitions to dominate high-end manufacturing and high-tech industries. But these demands are patently laughable, amounting to an inept, profligate also-ran demanding concessions from a risk-taking victor, the first nation-state to possess enough data—and to have developed the necessary analytical tools—to make central planning succeed.[37]

Kai-Fu Lee has catalogued the incredible advances China has made and the competitive advantages it enjoys in Big Data, the fuel for machine learning and artificial intelligence, through its culture of near-universal online access and centralized purchasing technology.[38] Nor does the Chinese government's strategy for mobilizing and directing investment require much political coercion; it apparently enjoys broad support in a nation with strong collectivist underpinnings. And—while this remains a subject worthy of further study—it is not inconsequential that China, unlike the United States, does not use up capital on external wars and has a military budget that, in relation to GDP, is half the size of ours.[39] One should not draw overly deterministic conclusions from this situation: other forces, as Solow observes, are at work and shape technological change. It is simply the case that China makes more of its wealth available for innovation.

At the moment, however, the future is not seriously in doubt. Public investment drives productivity, which—unless the gains are overwhelmingly appropriated by the rich, as they are in the United States—lifts wages, which in turn legitimizes the government and supports national consensus rather than extreme partisanship. Western capitalists, by remaining silent and therefore complicit in capitalism's slide into mere wealth preservation, have more or less ensured the system's self-destruction, gutting its legitimacy and dodging the taxes required to finance the extension or even the reproduction of its infrastructure. Everywhere in the West, mobile private capital has held the public realm hostage, starving it of the capital needed to sustain itself while simultaneously demanding ever-larger subsidies.[40]

In every Western capitalist nation, the rich are pulling away from the rest of the public, albeit at somewhat different rates from country to country.

Rising inequality—in incomes, in wealth, in access to health care, and even in the exercise of rights—is represented as a natural process that, however regrettable, is better than socialism. Economists chalk it up to the skills that working people were too lazy or too self-indulgent to acquire, but are largely silent on the pernicious effects of shadow markets, anticompetitive concentration of ownership, hedge fund tax breaks, and corporate and family office hoarding of existing wealth. These, along with rampant tax evasion, permit the very rich to prosper ever more while the majority struggles to stretch still-1970s-sized paychecks until the next Friday.

What Might Be Done?

While the wealth of the rich keeps growing—as if by magic, but really through the particular evolution of the financial markets and the forbearance of the regulatory state—the original and continuing source of this growth has been the rich's capture of more or less all productivity gains since 1980. Prior to that, 60 percent of those gains typically went to labor.[41]

Thus, doing something about pretax incomes is the logical starting point. In this context, large increases in the minimum wage and its extension to occupations now exempt from it would be all to the good. So too would be sharply more progressive income and/or wealth taxes, though these would matter less if the pretax income distribution could be improved.[42] And philanthropy, which depends on the largesse of the very rich, is by itself no substitute for an activist state. That's why, even among business elites—for example, in the Salesforce.com CEO's speech at Davos 2020—there is talk of an imminent "tipping point" toward crisis absent progress away from "short-termism" and "for shareholders only" and toward some version of "stakeholder capitalism."[43]

But such initiatives presuppose a significant shift in political power away from oligarchs and the very rich to the majority. With the former more or less firmly in charge both economically and politically, that is a tall order—especially when half of the poorest 99 percent of the U.S. population still votes for the party that purports to support a smaller, less intrusive government.

Not that it is not, in principle, easy to conjure up an ambitious prescription. In the postwar years, U.S. taxpayers were the early-stage "venture capitalists" that provided financing for the Space Race and, later, for the Defense Advanced Research Projects Agency (darpa), the central research and development organization for the U.S. Department of Defense. Darpa is widely credited with having created the internet, without which Amazon, Facebook, Google, and Netflix would not exist. Were the public and the state to take and retain lasting ownership, immune from both share dilution and future privatization—of even 20 percent of the shares in these four companies (and, logically, in Apple, Cisco, GoDaddy, Microsoft, Oracle and other major technology firms), that equity could fully fund a broader social safety net. (Indeed, this is what conventional taxation is supposed to achieve, but in an era of widespread tax arbitrage, perhaps it makes more sense for states to simply appropriate equity stakes.) It would make Andrew Yang's proposed $1,000 monthly stipend to each adult seem modest indeed. It would be an enduring form of redistribution and a far better way to grow the economy than letting the income flow into the pockets of the few. This would, ironically, be capitalism at its core, with risks and rewards flowing to the "cowboy money" that finances basic R&D and the venture capital to which profits are returned irregularly but also spectacularly. Such ownership should less resemble an individual stake like in an employee stock ownership plan; instead, it should be a public stock ownership program that could help finance public goods in a late-stage or even postcapitalist society.

Even if such a fix cannot be achieved at present, history reminds us that long strides toward the seemingly impossible are sometimes just a few general strikes or mass protests—of the kind seen recently in the streets of Paris, Beirut, and even the United States—away from plausibility. That may be what it takes to generate public pressure for and elite acceptance of something more like the activist state of Franklin Roosevelt's New Deal. This time, such a state would have a lot to learn from China about setting and realizing goals for increasing the public good, while also ensuring that the process remains underpinned by a far more robust democracy than the Chinese state allows. There is broad support for such a reactivated state, not least among the millions of young Americans who reject capitalism as it has come to be.

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Notes

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[1] John Maynard Keynes, "Economic Possibilities for our Grandchildren (1930)," in *Essays in Persuasion* (London: MacMillan, 1931), 358–73. Keynes's postcapitalist vision is usefully explored in Pascal Riche, "Keynes 2030," *Verso* (blog), February 15, 2017. In the U.S., total income is sufficient to ratify Keynes's forecast of a society in which further acquisitiveness would be unnecessary, with GDP of $64,000 per person and $161,000 per household; see "United States GDP," Trading Economics, and United States Census Bureau, "Historical Households by Type: 1940 to Present," *United States Census Bureau Current Population Survey*, November 2019. Yet in this apparently wealthy nation, more than 30 percent of households have no savings beyond their often meager equity in their residence and 40 percent could not handle a surprise $400 expense; see Sam Dogen, "The Percentage of People with No Wealth outside Their Home Is Sad," *Financial Samurai*, January 16, 2018, and Annie Nova, "Many Americans Who Can't Afford a $400 Emergency Blame Debt," CNBC, July 21, 2019. Sky-high income inequality means that, amidst the aggregate plenty, a large majority of Americans live little better than they did a half century ago, with only a small minority enjoying the economy imagined by Lord Keynes ninety years ago.

[2] Branko Milanović, "The Clash of Capitalisms: The Real Fight for the Global Economy's Future," *Foreign Affairs* 99, no. 1 (January–February 2020): 10–21.

[3] Nicholas Lemann, "Unmerited: Inequality and the New Elite," *Foreign Affairs* 99, no. 1 (January–February 2020): 140–47.

[4] Joel Kotkin, "America's Drift toward Feudalism," *American Affairs* 3, no. 4 (Winter 2019): 96–107.

[5] Julius Krein, "The Real Class War," *American Affairs* 3, no. 4 (Winter 2019):
153–72.

[6] See Peter Dizikes, "The Productive Career of Robert Solow," *MIT Technology Review*, December 27, 2019.

[7] See Gabriela Schulte, "Poll: 57 percent of Voters Say U.S. Political System Works Only for Insiders with Money & Power," *Hill*, March 31, 2020.

[8] See Wolfgang Streeck, *How Will Capitalism End?: Essays on a Failing System* (New York: Verso, 2016). Daniel Araya, "The Revolution After the Crisis," *Forbes*, March 31, 2020, addresses Keynes's prediction of how Western capitalism ends following the virtual closure of the economy due to the coronavirus pandemic and echoes Streeck's conclusion about a new neo-feudalist political economy. His reconciliation of the two is unconvincing, but this speaks to the confusion around the current crisis of capitalism.

[9] Craig Zabala and Daniel Luria, "New Gilded Age or Old Normal?," *American Affairs* 3, no. 3 (Fall 2019): 18–37. As we noted there, oligarchy is problematic and far from new. Over a century ago, Theodore Roosevelt wrote, "of all forms of tyranny, the least attractive and the most vulgar is the

tyranny of mere wealth, the tyranny of plutocracy" (Theodore Roosevelt, *Theodore Roosevelt: An Autobiography* [New York: MacMillan, 1913], 464). But vulgarity is not a death sentence. The rising inequality that enables plutocracy saps the growth in majority living standards. Without that growth, we argued, "populist" responses are inevitable, and this state of affairs "does not bode well for the coexistence of capitalism and liberal democracy in the future."

[11] Heidi Haidilun and Tom Mackenzie, "China Fossil Fuel Deadline Shifts Focus to Electric Car Race," *Bloomberg*, September 10, 2017.

[13] This is not to say that China has always executed its projects—from new cities to Coronavirus quarantine facilities—with full competency, of course. Nor is it in any way to defend every aspect of China's authoritarian state, including mass surveillance, persecution of its Uighur minority, or its less-than-transparent economic data. But none of those features are essential to economic planning, which is the critical driver of rapid and relatively widely shared growth.

[14] Greg B. Smith, "Port Authority Delays 1 World Trade Center Opening as Project Takes More Time, Money Than Expected," *New York Daily News*, September 6, 2014.

[16] World Bank, "GDP Per Capita (Constant 2010 US$)," World Bank Open Data, accessed March 23, 2020.

[17] Pippa Stevens, "Here Are the 10 Companies with the Most Cash on Hand," CNBC, November 7, 2019.

[18] T. Wang, "Annual Average Infrastructure Expenditures as Percent of GDP Worldwide from 2010 to 2015, by Country," Statista, August 9, 2019.

[19] Federal Reserve Bank of St. Louis, "(Net Government Investment: Federal: Nondefense+Net Domestic Investment: Government: State and Local)/Gross Domestic Product*100," FRED Economic Data, accessed March 20, 2020.

[20] Rachel Barker and Joseph Parilla, "Detroit's Big Bet on Small Business," Brookings, May 23, 2017. See also Craig A. Zabala and Jeremy M. Josse, "Shadow Banking: Rising Opportunities in the Private Middle Market," *KPMG Institutes* (New York: KPMG Advisory Institute and Global Enterprise Institute, October 2013), 1–12; and Craig A. Zabala and Jeremy M. Josse, "Shadow Credit and the Private Middle Market: Pre-Crisis and Post-Crisis Developments, Data Trends, and Two Examples of Private, Non-Bank Lending." *Journal of Risk Finance* 15, no. 3 (May 2014): 214–33.

[21] See Celine McNicholas, Margaret Poydock, Julia Wolfe, Ben Zipperer, Gordon Lafer, and Lola Loustaunau, *Unlawful: U.S. Employers Are Charged with Violating Federal Law in 41.5 percent of All Union Election Campaigns* (Washington, D.C.: Economic Policy Institute), December 11, 2019.

[22] Gary Rivlin, "The Stimulus Halts a Corporate Trick That Gouges Workers. But It Comes Too Late," *Washington Post*, March 27, 2020.

[24] *The Annual Report of the U.S. Securities and Exchange Commission. Select SEC and Market Data from 1939 to 2003 and 2004 to 2014* (Washington D.C.: U.S. Securities and Exchange Commission, 2019).

[25] David MacLaughlin and Annie Mass, "The Hidden Dangers of the Great Index Fund Takeover," *Bloomberg Businessweek*, January 13, 2020, 20–25.

[26] MacLaughlin and Massie, "Hidden Dangers," 20.

[27] Federal Reserve Bank of St. Louis, Economic Research Division, accessed February 1, 2020.

[28] Craig A. Zabala and Jeremy M. Josse, "Shadow Credit in the Middle Market: The Decade after the Financial Collapse," *Journal of Risk Finance* 19, no. 5 (November 2018): 414–36.

[29] Jason Kavanaugh, "The Rise of Family Offices: 10-Fold Growth in Less Than a Decade," *Real Assets Adviser*, March 1, 2018.

[30] Jeffrey Vögeli and Jan-Henrik Förster, "Swiss Savers Are Storing Cash in Boxes in Order to Tackle Negative Interest Rates," *Independent*, September 10, 2016.

[31] Allana Akhtar, "The 2020s Could Be an Apocalyptic Decade for Wall Street as Artificial Intelligence Takes Over the Most Popular Jobs in Finance," *Business Insider*, December 9, 2020. See also Don Tait and Ruomeng Wang, *Artificial Intelligence in Banking Report—2019* (London: IHS Markit, April 2019).

[32] Akhtar, "The 2020s."

[33] Jason Wiens and Chris Jackson, *The Importance of Young Firms for Economic Growth* (Kansas City, Mo.: Ewing Marion Kauffman Foundation, September 24, 2014).

[34] Ben Casselman, "Corporate America Hasn't Been Disrupted," *FiveThirtyEight*, August 8, 2014.

[35] E. J. Reedy and Robert E. Litan, *Starting Smaller; Staying Smaller: America's Slow Leak in Job Creation* (Kansas City, Mo.: Ewing Marion Kauffman Foundation, July 2011).

[36] Ian Hathaway and Robert E. Litan, "Declining Business Dynamism: It's for Real," Brookings, May 22, 2014.

[37] Evelyn Cheng, "China Is Indicating It'll Never Give in to U.S. Demands to Change Its State-Run Economy," CNBC, May 27, 2019.

[38] Kai-Fu Lee, *AI Super-Powers: China, Silicon Valley, and the New World Order* (New York: Houghton Mifflin Harcourt, 2018).

[39] China Power Team, "What Does China Really Spend on Its Military?" China Power, December 28, 2015.

[40] This is arguably least true in the case of the Scandinavian countries, which—despite recent and continuing attempts at rollback—retain much more thoroughgoing social democratic norms, including the willingness of their professional class to be taxed for the provision of ample public goods.

Perhaps not coincidentally, most professionals in these countries are in trade unions that bargain nationally.

[41] Josh Bivens and Lawrence Mishel, *Understanding the Historic Divergence between Productivity and a Typical Worker's Pay*, EPI Briefing Paper 406 (Washington, DC: Economic Policy Institute, September 2, 2015).

[42] Dean Baker of the Center for Economic and Policy Research (CEPR) has written at length about the ways the system is, as he puts it, "rigged" with guilds and other barriers to entry that collectively allow doctors, orthodontists, corporate lawyers, and other high-income professionals to capture excessive rents. See especially his seminal book *Rigged: How Globalization and the Rules of the Modern Economy Were Structured to Make the Rich Richer* (Washington, D.C.: Center for Economic and Policy Research, 2016).

The Road to Hell

SAMUEL MOYN DECEMBER 20, 2019

REVIEW ESSAY

The Education of an Idealist: A Memoir

by Samantha Power

Dey Street, 2019, 592 pages

At her first dinner with future president Barack Obama, a forty-five-minute meet and greet that turned into a four-hour mindmeld, the then senator from Illinois told Samantha Power he admired her first book, *"A Problem from Hell"*, an already classic study of genocide prevention. But, he added, it "seemed like malpractice to judge one's prospects by one's intentions, rather than making a strenuous effort to anticipate and weigh potential consequences."

Power went on to serve as a National Security Council staffer for multilateral affairs and human rights during Obama's first term. During his second, she became America's ambassador to the United Nations. But her recently released memoir, *The Education of an Idealist*, reveals that she never learned her boss's first lesson.

Power's book has been lauded widely in the mainstream press and understandably so. For what it tries to achieve, it is close to pitch-perfect. It narrates an engrossing life story with a confessional and at times intimate rhetoric. It purports to explore how far ethical idealists can take the reins of state power for the sake of good, and it concludes that they can do so with no compromises.

Power's memoir narrates her role in some policies that genuinely "made the world a better place," as one of the signature phrases of our times demands and the target audience for the book expects. Yet Power is not above acknowledging error and tragedy, notably when her convoy in Cameroon runs over a small boy and kills him. And Power's story vindicates the nobility of public service, especially for women. Indeed, it accurately reminds readers of continuing exclusions in the male foreign policy elite, even while affirming the feminist possibility of having it all—including the marital bliss and motherhood of two portrayed in recurring scenes. These vignettes, along with anecdotes about Power's always more than transactional relationship to her family's cook and nanny and her affection for various sports teams, effectively humanize her throughout the book. Yet at its core, *The Education of an Idealist* is a deft ethical dodge.

The overall thrust of Power's argument is to deny the need for any accounting of how good intentions can drive perverse results in the use of state power abroad. Only copping to forgivable or unintentional mistakes, it pushes back against the possibility of ethical compromise in crossing the Rubicon from government critic to government service. It succeeds in doing so, however, only because it studiously avoids serious discussion of how the wrong idealism in power can lead to the worst kind of unintended consequences.

Power's book has been a bestseller for months, but some will find the memoir falsely personal. It is in the genre that brings the reader up close to life with all of its messiness, but often it feels more artificial than honest. In fact, *The Education of an Idealist* seems less a call for personal authenticity than a reminder of the need to manage a career down to the fine details and with greater concern for indulging friends and massaging enemies than for saying what you think. Most unbelievably, Power reports that she never meant to call Hillary Clinton a monster during Obama's first campaign for president, and in fact doesn't remember doing so. It just happened. In the narrative arc of the book, Power's career-interrupting indiscretion provides a moment of adversity from which a series of professional triumphs—and a kind of redemption through sin (if it was one)—are still possible.

On the political side, *The Education of an Idealist* narrates Power's ascent from atrocity journalist to steward of American exceptionalism, instructing followers not in the potential costs of difficult choices but in how to avoid even computing them. Intending to vindicate the ethics of changing the world from inside the belly of the beast without compromise, the problem is not that the book ignores the risk of sellout or self-delusion. It is worse, because it is about what happens when you think you can deploy American might for the sake of right, and you get your wish.

Sins of Omission

Born in Ireland, and a grateful immigrant who became a graduate of Yale College and Harvard Law School, Power emerged on the international stage as a young woman famed for her conscience. With its journalistic fluency and coruscating moral passion, her first book, *"A Problem from Hell"* (2002), established her brand as ethics in the notoriously amoral domain of foreign policy.

A response to her experience covering the harrowing Bosnian conflict (including the Srebrenica massacre) for American newspapers, Power's book became something of a generational bible. It provided an opening for humanizing international relations, if only America would step up. Having waited too long for a dilatory America to use military force to save victims from the Bosnian charnel house, Power insisted that the American syndrome was standing idly by—leaving an opening for idealists like her to goad America to act in the future.

In effect, *"A Problem from Hell"*, which appeared in hawkish *New Republic* editor Martin Peretz's book series after other publishers passed on it, placed Power's own moment of rage in Bosnia within a long history. Her first book, she says, had its origins in Harvard professor Stanley Hoffmann's course on the use of force in international affairs, which started her thinking on a series of questions: "When is military force justified? How do the moral and religious traditions of nonviolence coexist with the moral imperative not to stand idly by in the face of suffering? How does one (particularly one who lacks sufficient information) measure the risks of action and inaction before deciding what to do? What would it mean if any country could take upon itself the decision to use force without any rules?"

All good questions, but already in her first book Power had forgotten some of them—especially why some countries rather than others get to break the rules and how much the hypothetical consequences of actions matter. Instead, Power identified an ethical priority for one country to act for humanity's sake, which swamped all other considerations in *"A Problem from Hell"*. An exercise in historical mythmaking about the origins of the imperative of genocide prevention and a biting—if one-sided—critique of

American policy since the early twentieth century for insufficiently engaging in it, *"A Problem from Hell"* contained the seeds of much that was to come.

Power's solely permissive approach to humanitarian intervention, and solely for American might, would survive into her time as Obama's adviser, most notably when she drafted a memo for what he should say as a Nobel Peace Prize–winning wartime president. Power became a "stowaway" on his trip to Oslo and snuck into the acceptance speech a justification for armed humanitarian intervention in spite of the international law that prohibits it.

The worldview of Power's book was dubious at the time, since it appeared precisely when harsh experience was forcing a reconsideration of the 1990s ethical millennialism that underwrote it. In particular, political theorist Stephen Holmes presciently identified three especially troublesome concerns when *"A Problem from Hell"* was published.[1]

First, Power's lament for American inaction occluded the many problems caused by American global force. In fact, at the very time Power was reporting during Bill Clinton's presidency—and publishing as the Iraq war loomed during George W. Bush's—American interventionism was not declining but rising. Emphasizing America's historic quietism, as the predicate of inciting action, concealed the damage done by interventionism all along. "By denouncing the US primarily for standing idly by when atrocity abroad occurs," Holmes wrote, Power "helped repopularize the idea of America as a potentially benign imperial power." In depicting a syndrome of omission, Power concealed the long-standing realities of action.

Second, the desire for more humanitarian intervention led Power and like-minded liberals to be allergic to multilateralism and legalism, things she emotionally disdained in her book whenever they obstructed American power from doing its beneficent work. No wonder, Holmes could write in November 2002, with America already on the road to the Iraq War, that "having supported unilateralist intervention outside the UN framework during the 1990s, liberals and progressives are simply unable to make a credible case against Bush today."

Power records in her memoir, accurately, that she opposed that war, but she does not reflect at all on why so few in her position could do so convincingly at the time—or why so many of her allies and fans became Bush's "useful idiots," as historian Tony Judt memorably called the liberal hawks of the day. "I was uncomfortable seeing my writing used in a way that might help justify a war," she confesses of this period in her memoir. *"A Problem from Hell"*, which won the Pulitzer prize a few weeks after the Iraq intervention began, was "liable to misinterpretation," she concedes. But that is not much different from saying that you didn't mean for the loaded gun you left on the table to be used by someone else in the room. Lionizing unilateralism and illegality in a good cause turns out to be part of the problem when others prove to be devious or hoodwinked, even if you were not. After all, the whole reason for constraints on force—which include demands for multilateralism and legalism—is the risk of pretextual abuse and simple mistake.

Third, there is not just the danger of starting the wrong war but both the foreseeable and unpredictable risks of waging righteous ones. *"A Problem from Hell"* channeled what Max Weber called an "ethics of ultimate ends" to privilege good intentions over careful and long-run caution about the futility, perversity, and jeopardy of passionate action. “Perhaps admirable in its original purpose,” Holmes concluded, such longing for goodness “sometimes mires America in local struggles that it cannot master, radically weakens the democratic oversight that a chronically parochial public can exercise over a secretive military operation, involves our own soldiers in savage acts, and undermines the country’s capacity to deliver some modest help to distressed peoples elsewhere in the world.” Even before anyone abused them as pretexts, humanitarian calls for American war often ignored the risk that such actions could make the world worse. These risks became reality not only in the Iraq war already in process but also as a result of later events that occurred under Power’s own watch.

Being Sorry for Being Sorry

In fairness, however, not long after Holmes’s triple warning, Power honorably revisited her priors, suspecting—however briefly—that she had helped to rationalize the use of American force that Bush was now abusing, likely with severe consequences, both intended and not. In a hard-hitting *New Republic* piece from March 2003, published only days before the Iraq War began in earnest, Power gave credible evidence of the education of an idealist herself, denouncing Bush’s “overreliance on power in the name of principle.”[2] It was easily the most important piece of writing in Power’s career, even though she would eventually disown it under pressure.

Anticipating an illegal and ruinous Iraq war, it was now far less obvious, Power concluded, that “the United States is structurally capable of using its tremendous power for the good of others.” Before it could really do so, America would have to learn from the errors of hyperactivity—not simply of standing idly by—including "a historical reckoning with crimes committed, sponsored, or permitted by the United States." "U.S. foreign policy has to be rethought. It needs not tweaking but overhauling," Power went so far as to write, and "must cease its reliance on gratuitous unilateralism. . . . Embedding U.S. power in an international system and demonstrating humility would be painful, unnatural steps for any empire, never mind the most potent empire in the history of mankind."

Education proved evanescent for Power, however. According to her memoir, this honest act of truth-telling left her not with a new mission in life but with a troublesome political quandary: in order to be confirmed as UN ambassador in July 2013, she now had to convince Senate Republicans that she did not hate the country she hoped to steer ethically. "America is the light to the world," she told a hectoring Senator Marco Rubio, who read the inflammatory claims in the *New Republic* piece back to her before the Senate Foreign Relations Committee. Her new mantra was "I will not apologize for America." Idealism now meant being sorry for being sorry.

Reliving the crucible of the confirmation process in her memoir, Power surmises that she had "lost her innocence." But it is not clear what she means, especially since she begins the book denying that the acid bath of experience dissolves any ethical critique of power and forces conformity with it. Idealists, her argument goes, do not need to relinquish their faith. So one can only conclude that losing innocence in this case refers to Power's abandonment of what was actually a crystalline moment of insight in order to revert to her hopes for America as a moral power, as if that were not the naïve but the sophisticated position.

What Power does not mention in her memoir is that, in response to Republican senator Ron Johnson at the same hearing, she also described the word "empire" as a term she had been mistaken to use. While America was certainly the most powerful country in world history, she explained on second thought, it is also "the most inspirational." Recalling a hearing that mostly concerned complaints about Israel's mistreatment in the United Nations, Power also does not mention that, in response to Senator Bob Corker, she endorsed American unilateralism outside the international body's constraints. Ultimately, her appreciation of the downsides of the ethic of genocide prevention appeared to apply only to the case of Bush's intervention in Iraq, not to her own good intentions elsewhere.

Learning Nothing and Forgetting Everything

By this point in her career, Power had not only forgotten what she might once have learned from the Iraq War, but had also refused to learn anything from her involvement in regime change in Libya. Power's coverage of the 2011 Libya intervention—which was justified in the name of saving civilians from atrocity—provides everything there is to know about the ethic of armed humanitarian intervention, and about how to avoid staring its depressing realities in the face, even long after the fact.

When the Arab Spring spread to Libya in 2011, Power remembers in the memoir, she knew she was "not a Middle East expert." But she also felt that her purpose in government was to question the conventional wisdom, which had tolerated autocracy in the region—or even propped it up—for years. "Fears about altering the status quo were credible," she recalls, but then "many of the arguments" of "regional specialists" had not been "stress-tested in decades."

Narrating the dramatic meeting at which the choice for American intervention in Libya was made, Power begins by recalling her admission to Obama that little was verifiable about what Libyan dictator Moammar Qaddafi had done to civilians, and it was even less clear whether his talk of exterminating the resistance in the town of Benghazi—which rebels controlled—or his son's promise of "rivers of blood" would come true. "Even if Qaddafi did not stage mass executions of the kind he had threatened, people connected to the opposition believed that they would be slaughtered if the city fell," Power records. While she is probably right that fears of brutal execution caused armed insurgents to redouble their tenacity, she does not mention that they and their advocates also had their backs stiffened by the prospect of external intervention as long as atrocity loomed or was seen to be imminent.

Following the advice of Power and others, Obama fatefully arranged for a United Nations Security Council resolution authorizing intervention and, under the auspices of the newfangled doctrine of "the responsibility to protect," ordered offensive air strikes over the following days and months. "The United States had helped orchestrate the fastest and broadest international response to an impending human rights crisis in history," Power still gloats.

It soon turned to ashes and made Libya worse, but Power essentially does not confront the longer-term outcome and barely mentions it. Astonishingly, *The Education of an Idealist* is entirely silent on why what started out as a humanitarian intervention turned into a regime change in the first place. Who chose that outcome? Did it have to happen? Was it in the cards all along, and were humanitarians who signed up to justify it fooled, becoming someone else's useful idiots? Or could they have successfully rescued their cause from the more or less neoconservative outcome that followed? These are all critical questions, directly relevant to the plausibility of Power's idealism in practice. She doesn't even raise them.

Instead, Power performs outrage over being given too much credit for the intervention—along with fellow "Valkyries" Hillary Clinton and Susan Rice, as *New York Times* columnist Maureen Dowd famously called the "militaristic muses" who counseled force in Libya, in spite of objections from Vice President Joe Biden, Secretary of Defense Robert Gates, and others. ("We've come a long way from feminist international relations theory two decades ago that indulged in stereotypes about aggression being 'male' and conciliation being 'female,'" Dowd remarked, with trademark snark.[3]) It is, of course, completely fair for Power to rebut any exaggeration of her responsibility. But it is indefensible for her to ignore the events that devastated her whole life's work, whatever her precise role. And it is remarkable that she simply sidesteps any knotty questions about the devastating consequences of exercising imperial might or how good intentions can suffer pretextual abuse by others. After all, these are questions that she once posed herself when criticizing a Republican president rather than serving a Democratic one.

But not only does Power skirt the entire mystery of "who said Qaddafi had to go," which was reconstructed insightfully at the time by Hugh Roberts in the *London Review of Books*.[4] When it comes to this improvident decision's medium- and long-range consequences for Libya, Power is more avoidant than circumspect. “I hoped that Obama would not regret his decision,” Power recalls. But once again she does not address whether she was obligated to do more than hope that the consequences would not outrun her intentions. When a single Cameroonian boy dies inadvertently, seven cars back in her motorcade, Power says to herself, “over and over” in her mind: “First, do no harm. Do. No. Harm.” When a country descends into anarchy intentionally, however, she cannot muster the thought.

Power hints defensively at the catastrophe that came. “Assessments of President Obama’s actions in Libya often assume that, had he made a different set of choices and not intervened, Qaddafi could have returned the country to more or less the way it had functioned before,” she writes. But denying that things would have returned to the status quo ante, however plausibly, is nothing like reckoning with the enormous costs of American action for all concerned. Of a counterfactual scenario in which America didn’t act, Power insists, “No one can say with confidence what would have happened.” There was no “crystal ball.” It is a theory of forecasting opacity that makes ethics a shot in the dark, even if—a big if—intentions are good.

And that’s all there is. In two desultory pages, Power gestures at the horror later, complacently offering that “no amount of outside engagement . . . could have counteracted Libya’s centrifugal forces,” as if this fact were irrelevant to the very big outside engagement of regime change. She insists that Obama recognized not the mistake of his decision itself but the inadequacy of the planning for what came next, as if this did not mimic the rhetoric of those who once hoped to salvage the purity of conquering Iraq by scapegoating the proconsuls who misruled it. In spite of the administration's best efforts, Power adds in an extraordinary deflection, the results were really Europe's fault for not taking "the lead" on "helping Libyans manage the aftermath." America's continuing engagement was simply overwhelmed by the fact that, as Power puts it inimitably in a footnote, "Libya's fissures had hardened."

"Everything is going fine," Chris Cook writes of the Libyan catastrophe in reviewing the recent memoir by British prime minister David Cameron, "and enjoys Cameron's firm leadership until the 16th page, when suddenly the verbs run passive as Libya descends into chaos over two pages."[5] Diffusing responsibility in a similar way, Power actually says, "the post-Qaddafi political transition was . . . turning chaotic." It is hard to square this evasion with Power's confidence when she is explaining how idealism can survive in office, not merely shirking blame in an exercise in image management.

In fact, as many as 250,000 have died in Libya in the civil wars and disorders that followed the American and French choice for regime change.[6] Russia, America's historic adversary, has backed forces in the ongoing tumult, and current reports suggest that Turkey is toying with its own intervention to counteract Russian meddling. Power still constantly refers to "ghastly" and "gruesome" catastrophes around the world that demand American action. But when it comes to this one that resulted from such intervention, she vacillates between euphemism and silence.

Astoundingly, in several later chapters about her time at the United Nations, when she was trying to organize aid for Syrian civilians devastated by an atrocious civil war, Power does not bother to mention the grim legacy of the

Libyan intervention for their very fate. China, in particular, certainly received an education in idealism along the way, which led it to join Russia in spoiling any attempt at the United Nations Security Council to respond to Syria.[7] As a matter of fact, Obama himself hesitated to respond unilaterally too, devastatingly commenting after one of Power's entreaties for action in Syria that he had already read her book.[8]

But most revealing of her ethical reasoning is that, having banished any doubts about Libya, Power is far more willing to entertain questions about whether results could have been better in Syria if America had acted. She does not explain how that fits with her rejection a few pages before of counterfactual reasoning in a flagrant case in which America overcame inaction. Consequences matter, apparently, only when things might have gone better than they did when you failed to act—not when your action paved the road to ruin.

Power plausibly surmises that Obama was not a realist who felt bad about his realism, as David Remnick reported a staffer claiming.[9] But if she is right, it is only because she fails to see her old boss as a case of educated idealism, who—like the Chinese—evolved in response to the Libyan mistake. Apparently, Power would have preferred that he simply ignore what he learned, as if the risks of gross error and unintended consequences were immaterial.

A Comfortable Idealism

At its core, *The Education of an Idealist* is little more than a retread of Power's old dreams of humanitarian intervention through American power. It is not much different from a Marxist history of the Soviet Union that gestures obliquely at the gulag as a regrettable outcome. It just happened—or was somebody else's fault.

Power's memoir has nevertheless been a blockbuster in sales. And by design and execution, it has also secured Power's political viability for a future in which the right kind of Democrat to reappoint her prevails, or she enters electoral politics herself. Her case is a study, therefore, in the self-fashioning and self-representation of America's bipartisan elite, in foreign policy and beyond.

Power is probably right that there is little new to learn about ethical compromise from her book. Lord Acton taught that power corrupts; if Power was corrupted, it was no more (or less) than many others past or future. As long as ideas and actions are judged only by one's professed good intentions, an occasional double standard and a little dirt on one's hands come to be seen as tolerable along the way. Where the memoir fails is not in its defense of compromise but rather in how it treats the idealism of humanitarian military intervention, for which the compromises were made in the first place. It was and is merely one idealism among others, and it has proved implausible in theory and sinister in practice.

By framing the choice as one between hopeful idealism or pessimistic realism, Power never questions whether she chose the correct ethic in content (as if there were only one) or located a worthy agent to further it (as if America fit the bill). For Power and her implied audience, it goes without saying that genocide is an evil worth any cost to suppress, and that America exercising military supremacy in the name of humanity is good for the world and the country. Darker forces and unintended outcomes are extraneous to these shimmering truths.

But it is precisely these notions that seem discredited by recent history, including Power's time in office. Among other things, Donald Trump has now assumed the role of truth-teller that Power adopted and then forsook. ("You think our country's so innocent?" he notoriously asked at one point.)

If *The Education of an Idealist* is exemplary of anything, it is so mainly in its avoidance of key questions that the coming of Trump has harshly raised regarding American policy in the future. With a charlatan in the White House, nostalgia for Barack Obama's presidency has been an attractive emotional state and a dependable marketing tactic. For those who refuse to look into how that presidency—and decades of mainstream policy—led America to its current situation, this is a comfortable stance. Power, alas, is very comfortable.

Notes

[1] Stephen Holmes, "Looking Away," *London Review of Books*, November 14, 2002.

[2] Samantha Power, "Force Full," *New Republic*, March 3, 2003.

[3] Maureen Dowd, "Fight of the Valkyries," *New York Times*, March 22, 2011.

[4] Hugh Roberts, "Who Said Gaddafi Had to Go?," *London Review of Books*, November 17, 2011.

[6] The numbers are highly fluid, but see Nicolas J. S. Davies, "Calculating the Millions-High Death Toll of America's Post-9/11 Wars," *Mint Press News*, April 26, 2018.

[7] See, e.g., Matt Schiavenza, "Why China Will Oppose Any Strike on Syria," *Atlantic*, August 29, 2013.

[8] Jeffrey Goldberg, "The Obama Doctrine," *Atlantic*, January 2016.

[9] David Remnick, "Watching the Eclipse," *New Yorker*, August 2, 2014.

Trade, Antitrust, and Restoring Domestic Competition

ALAN TONELSON

Will more restrictive trade policies harm the U.S. economy by shielding domestic businesses against competition? That's what standard economic theory holds, insisting that pressure from foreign rivals is needed for U.S.-based businesses to continue to innovate, to create the highest quality goods, and to sell them for the lowest possible prices.

Although this theory has often been used as a justification for "free trade," competition within the U.S. market has, for decades, been allowed to wither as a result of corporate concentration and other factors. Indeed, those insisting that increased foreign competition is necessary to keep domestic businesses on their toes are often the same people who claim that domestic monopolies are nothing to worry about. At the same time, foreign competition itself has contributed to greater corporate concentration within the United States, reducing domestic competition.

A more sensible economic strategy, at least in the present situation, would aim in the opposite direction: reducing foreign competition and replacing it with domestic competition. This could be accomplished through more robust trade curbs as well as by reinvigorating long-dormant antitrust policy. A combination of less foreign competition and more domestic competition would create two big, badly needed bonuses: a major boost for lagging

American wages, and healthier, less bubbly U.S. growth, generated more from production and less from consumption.

After all, if the number of domestic employers—which pay relatively high wages—competing for American workers' services were to increase, then U.S. labor would be endowed with greater bargaining power to force businesses to pay even better. Moreover, in a more effectively protected American economy, those same domestic U.S. workers would face much less downward wage pressure from imports supplied by overseas workers, who generally are much lower paid.

In addition, a trade policy that reduced America's enormous deficits would by definition slash U.S. imports by much greater amounts than any reductions in exports resulting from foreign retaliation or from consequently weakened foreign economies. More balanced trade would mean that the nation's prosperity would once again (mainly) reflect its production and income-earning prowess, rather than its ever deeper indebtedness.

Declining Domestic Competition

Since the 1970s, American trade policies supported by presidents and congresses of both parties have exposed the nation's economy to surging levels of foreign competition. When that decade began, imports of goods and services amounted to about 5.2 percent of gross domestic product. By last year, they hit 15.4 percent—despite a dramatic drop in purchases of foreign oil, which are generally unrelated to trade policy decisions. Indeed, import-encouraging trade policies continued long after it became clear that exports were not nearly keeping pace, even though export expansion was most often the stated goal of liberalizing trade policies.

Yet as foreign competition against domestic businesses and workers kept rising, levels of domestic competition fell dramatically. In the spring of 2016, the Obama White House made waves with a study warning about "three sets of trends that are broadly suggestive of a decline in competition [in the domestic economy]: increasing industry concentration, increasing rents accruing to a few firms, and lower levels of firm entry and labor market mobility." The president's Council of Economic Advisers (CEA) was worried that more and more sectors of the American economy were increasingly dominated by ever fewer, ever larger companies. And the burgeoning power of these giants was enabling them to supercharge their profits, discourage the entry of new rivals, and narrow U.S. workers' range of employment choices.

Some of the evidence marshaled for this proposition—notably, the share of revenues earned by the top few companies in a given industry and their outperformance measured by returns on invested capital—came from sectors of the economy not extensively exposed to international competition, such as health care services, logistics, real estate, and educational services. But the same trend also occurred in sectors that are highly exposed to foreign competition, such as agriculture and its supply industries, information technology, and publicly traded American nonfinancial companies.

Around the time the CEA report was published, a growing body of more detailed scholarly research was arriving at the same conclusions. For example, one paper written for a 2017 University of Chicago conference on declining competition found that "More than 75 percent of U.S. industries have experienced an increase in concentration levels over the last two decades." In fact, during this period, the average industry's level of concentration nearly doubled.

That same year, a team of noted economists from Harvard and MIT looked at the share of sales generated by the top four businesses in six major American industries—manufacturing, finance, retail trade, wholesale trade, services, and utilities and transportation—and documented "a remarkably consistent upward trend in concentration" between 1982 and 2012.

In manufacturing, which dominates both U.S. export and import flows, consultant Michael Collins reported an "astronomical" rise since the end of World War II in the number of American industries in which the top four companies accounted for at least half of that sector's shipments. Moreover, the most rapid growth in highly concentrated industries has taken place since the early 1980s—when the American economy began opening wide to imports.

The trend toward higher levels of concentration becomes especially apparent upon examining some specific American industries. For example, as late as the 1970s, the U.S. economy had room for four domestic manufacturers of earth-moving equipment. Today, only one—Caterpillar—remains. For a half century starting in the 1930s, seven full-line, U.S.-owned companies competed in the American market for farm machinery and equipment. Today the number is down to three. In 1970, three companies built large-scale civil aircraft in the United States. Since 1997, Boeing has been the only domestic survivor.

No industry's experience, however, better illustrates the paradox of import-friendly U.S. trade policies and lax antitrust policies than that of the automobile sector. Although by one count fully forty-four American companies were manufacturing passenger cars as late as the 1920s, the industry had become highly concentrated by the eve of the Great Depression, with the "Detroit 3"—Ford, General Motors, and Chrysler—already accounting for some 80 percent of U.S. output.

The Detroit 3's dominance, and especially GM's position, strengthened further following World War II. And just as mainstream economic theory predicts, the industry became fat, lazy, and addicted to juicing sales through gimmicks like planned obsolescence and tailfins rather than by offering ever better products. Not surprisingly (at least not in retrospect), by the 1970s, the import invasion was in full swing. The Detroit automakers' pleas for protection weren't answered until their market-share losses alarmed even the free-trading Reagan administration, which led to the imposition of "voluntary" import quotas on German and Japanese producers.

These trade barriers, in part, temporarily stemmed the tide, but an arguably more effective recipe for strengthened domestic auto industry competitiveness was actually proposed much earlier in Washington, though ultimately rejected: a forced breakup of GM. An investigation into GM's anticompetitive practices was launched by the Eisenhower Justice Department in 1956 and completed ten years later. But the company's massive size, signs of an economic slowdown, and the beginning of Vietnam

War–related divisions and civil rights tensions persuaded President Johnson to avoid such a potentially disruptive step. The result, according to legal scholars Harry First and Peter Carstensen, was the loss of a momentous opportunity. Writing in 2009, soon after the Bush and Obama administrations decided to bail out and take over the then-floundering company (along with Chrysler), they argued:

> The failure to pursue antitrust action against GM at a time when it could have spun off healthy assets, not failing ones, is a cautionary tale for antitrust enforcers. Had GM been reorganized when it was still a powerful and efficient competitor, the result might have been a stronger, larger, and more domestic automobile industry, where firms would have been under continuing competitive pressure to reduce prices and to innovate, whether by producing smaller cars, more efficient cars, or safer cars.

Foreign Competition's Role in Encouraging Corporate Concentration

Why was concentration in American business allowed to increase—and competition allowed to decrease—so dramatically during the last several decades? One important reason: starting in the 1970s, a growing scholarly and political consensus concluded that long-standing antitrust policies had become outmoded and heavy-handed. With Ronald Reagan's election as president in 1980, control of competition policy passed to free market enthusiasts convinced both that the private sector could adequately police the most harmful business collusion, and that the cause of antitrust generally mattered less than promoting economic efficiency.

Even after Reagan, free market fundamentalism remained a strong influence limiting antitrust enforcement. Moreover, inherently sluggish legal mechanisms involving piecemeal approaches proved no match for concentration impulses supercharged by broader economic policy decisions (ranging from favorable tax treatment for financing acquisitions via debt issuance to slashing the overall cost of capital with super-easy monetary policies).

Ironically, rising foreign competition itself has been used as a rationale for permitting more corporate bigness: without eased antitrust enforcement, the argument went, U.S.-based businesses could never reach the scale needed to compete effectively against mammoth Asian and European rivals.

Financial industry consolidation is one leading example of this phenomenon. Starting in the late 1980s, American banks and lawmakers began claiming that Depression-era and other long-standing curbs on their size and operations were crippling their domestic and international competitiveness. In particular, prohibitions on interstate banking constrained their geographic reach, and the mandated separation of commercial and investment banking denied them vital economies of scale. Yet they faced Asian and European rivals that labored under no such restrictions.

As finance writer Edward Harrison reminds us, by the 1990s, these regulatory discrepancies appeared to threaten the U.S. financial sector's very independence:

> By the 1990s, the now internationalised European universal banks were on the prowl in America. . . . We saw Credit Suisse acquire First Boston, SBC acquire Dillon Read, and Deutsche Bank acquire Bankers Trust. [W]e were seeing international universal bank behemoths that had huge balance sheets and huge investment banking and trading operations in America. The American companies felt at a disadvantage because of Glass-Steagall [the law preventing commercial and investment banking by the same company]. And, in truth, they were.

The end result: the repeal, in 1994, of interstate banking restrictions and, in 1999, of the Glass-Steagall ban on financial conglomerates.

Concerns about antitrust laws undermining U.S. manufacturing's competitiveness date to at least the Carter administration, and peaked in the late 1980s as fears spread about the American economy's inability to keep pace with foreign—especially Japanese and European—rivals. Indeed, in 1988, no fewer than two Reagan administration cabinet secretaries wrote *Wall Street Journal* articles contending that outmoded regulations were preventing U.S. businesses from cooperating on research and development and production in order to meet challenges from foreign systems where such joint ventures allegedly were encouraged.

In response, according to *Congressional Quarterly*, "More than half a dozen bills [were] introduced to offer a degree of protection from antitrust laws for joint ventures in U.S. manufacturing." By the end of the decade, this activity produced federal approval for industry consortia to speed up technological progress in electronic packaging, software development, parallel computer architecture, and semiconductor manufacturing.

Corporate Concentration, Wage Stagnation, and Business Dynamism

Nowadays, calls for more robust antitrust enforcement have made a comeback, focused mainly on issues surrounding the behavior of technology behemoths, including privacy intrusions, voter manipulation, and censorship practices.

But the same research that spotlighted worrisome growth in business concentration throughout the economy has pointed to other noteworthy economic tolls as well. The Obama administration report which found that competition in many industries had fallen by troubling extents specifically warned that the results could eventually undermine the benefits of freewheeling markets long identified by economists: "lower prices and better products for consumers, greater opportunities for workers, and a level playing field for entrepreneurs and small businesses that seek to enter new markets or expand their share."

Academic research has identified especially significant effects on wages flowing from more concentrated, less competitively structured industries—which makes perfect sense according to the laws of supply and demand. A study released this February by the National Bureau of Economic Research looked at eight thousand American labor markets and reported not only that the average region is "highly concentrated," but that a tripling of the degree of market concentration is statistically linked with a 17 percent decline in wages. In other words, the fewer companies that were competing for workers, the less power these workers had to goad those companies into a bidding war for their services.

Similarly, according to a 2016 paper from the University of Chicago, if competition in the United States returned to its 1984 level, wages would be 24 percent higher. And a January 2018 Northwestern University study examining the period from 1977 to 2009 found a near-lockstep—but inverse—relationship in the United States between the degree of employer concentration in a labor market and its wage levels. That is, the higher the former, the lower the latter. And, over time, the wage-weakening effects of declining job opportunities for workers became stronger.

Oddly, the latest evidence is decidedly mixed for the best-known prediction about the dangers of monopoly and declining competition in general—that businesses enjoying unusually strong market positions will use this power to supercharge consumer prices. For example, in 2016, a Federal Reserve study of 187,000 manufacturing plants found that mergers and acquisitions in the sector have "significantly" increased "markups on average, but have no statistically significant average effect on productivity." Yet the following year, Georgetown University economist Sharat Ganapati came to precisely the opposite conclusions.

Much less ambiguous have been the results of research measuring increasing business concentration's effects on one of American capitalism's greatest strengths: its dynamism. Here, the main indicator is the so-called birth-death rate, which measures the extent to which new businesses are being formed and old ones are exiting the stage. Consistent with Joseph Schumpeter's venerable notion of creative destruction, most economists agree that the higher this so-called churn rate, the more innovative and productive the economy tends to be. As summarized by the 2016 Obama White House report, however, considerable academic research has detected an overall downward trend in business churn since the 1970s, with the decline almost entirely driven by the drop in new business formation. Moreover, although waning business dynamism had been largely restricted during the 1980s and 1990s to a handful of sectors (notably retail), one major 2017 study discovered that, since the 2000s, it has spread throughout the entire economy.

Encouraging Domestic Industry and Competition

Breaking up these monopolies and oligopolies while pursuing trade policies that privileged U.S. industry and production would create more wage-boosting domestic competition for U.S. workers. But could purely domestic competition keep product costs in check, and maintain quality and innovation? Reasons for optimism abound.

The high degree of economic concentration characterizing the American economy by definition shows that it is capable of generating much more competitive pressure than at present, and all the more so since the gap between U.S. GDP and that of the world's next biggest economies is so great. For example, the United States is 62 percent larger than the world's second-biggest economy, China. It is more than three and a half times bigger than Japan and nearly five and a half times bigger than Germany. And although South Korea is a major exporter to the United States, its economy is only one-thirteenth as big.

As a result of its relative size, even if every unit of economic activity outside the United States places an identical amount of new competitive pressure on the American economy (an assumption that's never been tested, but one that's logically consistent with Washington's long-time determination to maximize foreign competition), then it's easy to see how significantly enhancing levels of domestic competition can satisfactorily substitute for much current foreign competition—and ensure that the benefits stay at home rather than leak overseas.

Domestic competition's potential to replace foreign competition looks even more compelling upon realizing that the United States already holds global leads in many crucial measures of competitiveness, like productivity levels and innovation measures. Therefore, it's likely that foreign competition's effectiveness versus domestic competition has been considerably overstated.

On the other hand, it's true that several major foreign economies produce goods and services that equal or outshine their American counterparts—for example, Japan and Germany in automobiles; Japan, South Korea, and Taiwan in certain kinds of semiconductors; Japan and the Netherlands in semiconductor manufacturing equipment; Germany in specialized industrial machinery; China, Sweden, and Finland in state-of-the-art (5G) telecommunications hardware; and virtually all of these countries in machine tools.

Where America does lag in higher-value sectors, however, it's best advised not to content itself with importing—which increases the odds that it will remain behind. Far better would be to use its vast market power to require foreign companies to manufacture these goods in the United States and share with or transfer outright their best technology to American partners. Countries much smaller and weaker than the United States, as well as giants like China and India, routinely use such practices to enhance their technological prowess; America can surely be at least as successful. Indeed, during the 1980s, the Reagan administration used tariffs to press foreign firms to improve America's steelmaking capabilities in just this way. At the same time, continually strengthening U.S. manufacturing competitiveness also requires more effective incentives for domestic private sector research and development, along with stepped up federal support for innovation.

And what of those many areas where imports now hold sizable shares of the U.S. market despite lacking notable competitive edges? Domestically produced counterparts should steadily become available thanks to a combination of stronger antitrust policies reducing barriers to entering these industries; the ready access to investment capital that should be enabled by the unrivaled U.S. financial system; and the attraction of supplying the world's largest mass of affluent households and profitable businesses.

The examples provided by the domestic economies of potent rivals like Germany and especially Japan also justify confidence that greater domestic competition can satisfactorily take the place of much foreign competition in America. After all, these countries have created dozens of world-class industries precisely by permitting fierce domestic competition while excluding most foreign rivals. True, prices have been high—but so have wages.

Finally, the U.S. economy itself historically excelled at creating innovative, high quality, affordable goods (and services) long before encouraging import competition. Even in recent decades, in the absence of serious foreign rivals, myriad American industries have delivered top-notch value and generated numerous breakthrough offerings—think aerospace, pharmaceuticals, finance, software and internet services, entertainment, and high-value agricultural goods. More effective spurs to domestic competition could greatly multiply the number of these world-class industries, and the employment and income opportunities they generate.

Competition is unmistakably needed for lasting national prosperity. But foreign competition has no outsized importance. Especially in an economy as immense and diverse as America's, prioritizing domestic competition can keep ensuring low costs, high quality, and innovation. It can reduce the role of budget-busting government spending and tax cuts as engines of growth. And it can prevent excessive concentrations of political power. President Trump has begun the process of limiting foreign competition. Now it's time for Washington to achieve the best of all worlds and unleash an era of greater domestic competition.

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Common Good Capitalism: An Interview with Marco Rubio

THE EDITORS

Senator Rubio, in a recent speech on "Common Good Capitalism," you said that "Our challenge is not simply one of cyclical downturns or the wrong party being in charge. Our challenge is an economic order that is bad for America. It is bad economically because it is leaving too many people behind. And it is bad because it is inflicting tremendous damage on our families, our communities, and our society." How did you come to view these problems as systemic in nature? And does the depth of these challenges mean that we need a more ambitious policy discussion than we have had recently?

My entire life, I've been an unabashed believer in American exceptionalism and consistent evangelist of the American Dream. But when I ran for president, I learned that many Americans did not share my optimism. The places I needed to fundraise from and the places I sought to earn votes were like two different countries.

We have always had a political class, composed of politicians, donors, consultants, and media who make decisions about what our politics and campaigns should focus on. But never have the views of this political class and the rest of the country been so different. For our political class, the operating assumption has been that popular concerns, like families' cost of living and industries moving to China, are issues that are either simply inevitable in modern society or can be dealt with by a tax credit or a government program. I think one of the lessons of the 2016 election is that these are more fundamental issues that demand deeper political attention. We are no longer a society where a bartender and a maid could own a home and raise four children like my parents did.

The other thing that brought me to see these problems as structural is the rise of China. We should have been more skeptical when China joined the WTO, but it is now impossible to argue that simply increasing trade with China would increase their protection of basic human rights and alignment with American national security interests or adherence to international law on trade and commerce. The China challenge is not just a foreign policy or trade problem, but an indictment of an outdated and sclerotic political consensus.

The reason China reveals structural problems is because the premise that it was good to expose American workers to China was a structural belief. Losing industries to China was not an "unintended consequence" of liberal trade and financial policies; it was very often the goal. It required an assumption that middle-class American families would be better off with cheaper imported goods and better financing terms on consumer debt. It required the assumption that the American economy would be better off with financial services as its comparative advantage. The reason these assumptions are wrong is not because the changes they brought weren't managed properly, or not pursued consistently enough, but because the underlying belief about what makes for a good society is not true.

If a factory that employs recent trade school graduates in a small town or an urban center suddenly closes, it directly and immediately affects the entire community. The ability of a working father to provide for his family collapses. The likelihood that a young, unattached employee will ever get married and raise children in the first place plunges. Without productive jobs, Americans are far more likely to risk turning to substance abuse and crime.

The consequences of this way of doing things economically are playing out on a level many orders of magnitude greater than the individual. Failing to set an economic course has been ruinous for our nation, and the repercussions extend to every part of our society.

Your office has released two major reports on new economic threats to the United States: one on intensifying economic and technological competition with China and one on declining domestic investment. Why are these issues important?

They help us understand the economy and make long-term strategic decisions. By many traditional indicators, the economy is performing very well—we have low unemployment, a growing GDP, and record stock market highs. But there is real anxiety beneath the surface that these statistics miss. When economic growth is driven mainly by consumer spending, high levels of consumer debt can make the economy run hot but make families' financial stability more precarious. Likewise, when stock market gains are driven in part by financial engineering like stock buybacks, the stock market can do very well while companies spend less on developing better products and more productive, better-paid workers.

The reports I've released document two important and related trends that identify a singular challenge that we should be taking on regardless of what the S&P 500 looks like on a given day. The first is that capital investment—what companies spend on improving their products and workforces—does not play a central role in our economy the way it once did. The second is that China is competitive with, and indeed is beginning to exceed our capacity, in the most technologically advanced industries in the world.

While for most of American history large companies borrowed from the financial sector in order to make capital investments, today the American nonfinancial corporate sector borrows to lend money elsewhere. In other words, the way that American corporations make money today is more about earning predictable rents than it is investing in uncertain technological breakthroughs.

At the same time, China is moving up the value chain. The competition we face from China is no longer about cheap labor making McDonald's toys. China has the largest telecommunications equipment company in the world and has more global market share than U.S. companies in high-value goods ranging from solar panels to commercial ships and electric vehicles. China is the world leader in things we can no longer make at home even if we wanted to, from lithium-ion batteries to television panel displays.

This is not just populist hype. It occupies the concerns of military generals, the executives of American companies competing for market share with Chinese companies, and patriotic Americans of all occupations and incomes. We are declining in significant and quantifiable ways that require urgent attention.

You have already introduced a number of policy proposals to address these challenges: updating and expanding Small Business Administration programs, increasing tax incentives for corporate investment, and disincentivizing share buybacks. Why are these the right solutions? What more do we need to do?

I am currently the chairman of the Senate Committee on Small Business and Entrepreneurship, which is the committee that oversees the U.S. Small Business Administration. The SBA has historically played an important role in taking on exactly these kinds of challenges, so it's a natural place to start. However, the SBA also hasn't seen a full reauthorization in nearly twenty years; it was last reauthorized in 2000, the year before China became a member of the World Trade Organization.

My concept is simple. Big innovations in manufacturing often occur when the government partners with large companies to fulfill defense contracts that meet our national security needs. Small businesses and start-ups are essential to developing the technologies and commercializing the products that often come out of these contracts. Unlike the network-effect software start-ups that venture capital firms focus on, manufacturing technologies take significant time and capital to finance. The SBA already guarantees some debt and equity investments in these companies. I am proposing to reform and expand these programs so that the SBA functions closer to how it was originally created to work.

Guaranteeing financial investment in small business and start-up manufacturing would build a new capital market for innovation. Similarly, my proposal to change the tax treatment of stock buybacks would reform our existing capital markets to encourage physical investment over financial engineering. Shareholders would no longer see a tax break for seeing gains through a stock buyback versus a dividend of the same amount, and companies would pay no taxes on any of their capital expenditure. Together, these changes would change the financial calculation for many companies. It would better align the interests of shareholders to the existing interest workers and executives have in investing in product development and innovation.

The key insight of both proposals is that we should identify goals that achieve our national interest—providing for our national defense and creating good jobs for American workers—and organize our material resources to achieve them. This way of thinking has a bounty of possible applications. For example, I have proposed creating a national rare-earth mineral mining cooperative to counter China's hoarding of a supply critical to military parts. Similar policy institutions for investment could be created for agricultural machinery, advanced telecommunications, and additive manufacturing. As Randall Wray noted in the Spring 2019 issue of this journal, there is no shortage of finance; what we need is the political will to achieve common goals.

You have also introduced legislation that would force Chinese companies listing on U.S. stock exchanges to comply with American financial disclosure and other requirements. Have we allowed short-term financial incentives to obscure long-term national interests when it comes to China? What do you say to people who do not think that we are in a geo-economic competition with China?

Chasing short-term windfalls in China is exactly the kind of self-defeating behavior that we've engaged in and China has exploited for the last few decades. It absolutely has obscured a shared focus on the national interest.

One particularly emblematic example has been the recent decision of the Federal Retirement Thrift Investment Board—the body that manages the retirement savings plan for American service members and federal employees—to use the MSCI All Country World ex-U.S. Investable Market Index as a benchmark. What this means is that the retirement savings of Americans who have chosen to serve our country are now literally funding Chinese companies, including technological and defense firms that are actively developing the weapons of war Beijing could use to try to harm our nation.

The familiar rebuttal is that divesting from these funds would mean that we're not giving service members and federal employees the financial returns they deserve. But the solution is not to fund China's rise, but rather strengthen our own economy. After all, any short-term benefits these investment decisions may have are dwarfed by the long-term danger of giving China incredible leverage over the retirement funds of millions of Americans.

That we're in geo-economic competition with China is not a theory; it is a matter of fact recognized by Chinese leaders themselves.

Communist Party officials in Beijing spell this out in explicit terms. Huang Qifan, a prominent former central committee member, recently urged the Chinese people in a speech to shed any illusions and prepare for struggle. Framing China as the rising power and the United States as the straining hegemon, he declared that "the socialist road with Chinese characteristics is obviously more competitive . . . than the U.S. economic system."

These were the kinds of ambitions that Chinese political leadership once obfuscated to lull us into a sense of complacency. Now, they discuss their strategy to supplant us in open terms.

With regards to those who are still unable to heed these words or downplay them, where we do still see misunderstanding of Chinese intentions is on the part of businesses agreeing to deals with Chinese "companies." We need to make unambiguously clear that if you're entering a business agreement with a Chinese firm, you're entering an agreement with the Chinese Communist Party (CCP). Sending production to China is a dead end. You can and will be exploited—stripped for parts, in effect. We know the playbook: after sending production to the mainland, the Chinese will absorb your trade secrets and steal IP before they shut you down and install a subsidized Chinese competitor in your place.

China appears to be leading the way in rolling out 5G telecommunications networks globally. Dozens of countries have signed contracts with Huawei, including several NATO allies. Can anything be done at this point? Do we need an American 5G components company to compete with Huawei?

Huawei cannot be the only option for 5G infrastructure. At this point, we've seen that China's mercantilist model—with Huawei as its exemplar—works for the regime's purposes. These are firms backed by the central government, so they're not subject to domestic competition and possess a tremendous leg up internationally. China provides their domestic companies the ability to make investments that make no market sense in the short term, but are critical to their national and economic security in the long term. This makes it tough for everyone to compete. For as ambitious a project as 5G infrastructure, collective action is a significant problem.

The thing is, we talk about this stuff as being unfair, that it's not how the free market is supposed to work! And that's right—it's not. In the instances where we can try to reassert the historical rules of fairness where they're being blatantly broken (e.g., China's theft of American intellectual property, which costs our economy $600 billion annually), we have an obligation to do so.

But we also need to recognize that these are the new rules while dealing with Beijing, in a sense. And we can complain, but that's not in the end going to help the American economy—or the individual American workers and families suffering because of China's exploitation. If our philosophy in economic policy is solely to maximize "efficiency," our firms are competing with ones backed by the full weight of the Chinese government. In the long run, that is a competition that market fundamentalists won't win.

Long story short, yes—identifying important sectors like 5G and developing ways to organize American industry around them will be a necessary component of our strategy. We also need to engage our allies in this effort to ensure unaligned nations have a choice.

If we do not act on 5G, we may end up in the same position we find ourselves in with regard to rare earth minerals. It is a field dominated to so great a degree by China that neither domestic subsidies, tax breaks, nor regulatory relief alone is likely to spawn a domestic industry. That is why my office released legislation designed to spur the development of a domestic rare earth mineral market via a market consortium that could serve as a potential model.

Much of the media discussion around trade and China has focused exclusively on tariffs. Do we need to take other, more proactive measures to promote domestic economic development?

The depletion of America's manufacturing sector has left us with a tremendous national security vulnerability. I've already described several measures that have been on my mind: reverse the trend of declining business investment, reducing incentives for unproductive buybacks, full expensing, etc.

But in short, domestic economic development will in great part be contingent on our ability to develop a coherent, pro-American industrial policy.

American policymakers must pursue policies that make our economy more productive by identifying the critical value of specific, highly productive industrial sectors and spurring investment in them. Industries like aerospace, rail, electronics, telecommunications, and agricultural machinery—in essence, the same industries China is trying to dominate via their Made in China 2025 initiative—will create opportunities for dignified work and be vital to the national interest.

No one should mistake this as a call for politicians and unelected bureaucrats to take over our means of production. But policymakers and commentators should remember that, from World War II to the Space Race and beyond, a capitalist America has always relied on public-private collaboration to further our national security.

And from the internet to GPS, many of the innovations that have made America a technological superpower originated from national defense-oriented public-private partnerships.

A recent survey found that a majority of children in China thought "astronaut" was the most exciting future career choice, while the top choice among American children was "YouTuber." Is this a high-tech future we should look forward to?

No. But this is the future our culture is cultivating.

We celebrate the breakneck speed of new OS updates and social media apps that lead us to believe that we're going through huge tech breakthroughs with regularity, but we're really not. Instead of all of the lofty promises of Silicon Valley's "innovations"—which were supposed to bring us together and obviate geographic distances between family members and with old classmates—we see drags on productivity from constant internet distractions, self-segregation into internet communities with little face-to-face contact, and skyrocketing rates of bullying and mental illness among younger generations.

A large proportion of Silicon Valley's enormous intellectual talent ends up by default channeled into figuring out what next app idea can churn out the most seed funding before getting acquired by a bigger fish. We should be thinking bigger; it's possible to model exciting professions like astronauts for our next generation while also creating opportunities for productive work for everyone.

A smarter high-tech future would entail looking at developing industries like advanced space manufacturing, which are strategically important, offer dignified work, and use cutting-edge technology to move the ball forward. One notable beneficiary of the SBA's Small Business Innovation Research and Small Business Technology Transfer programs, Made in Space, serves as a great example: the company develops massive 3-d printers to build structures in microgravity and recently received a new contract to build solar arrays in space.

Jobs in "physical economy" sectors like advanced manufacturing have historically been highly productive because they create tangible products—whether that's an in-orbit solar array, an electric vehicle, or a home—that can be cycled or resold through the economy. Their value isn't immediately diminished or reduced to zero after use, but instead endures and multiples.

My point isn't to argue that every American child should aspire to be a builder or mechanic instead of a YouTube star; it's that our current economy fails even to model other options. They exist, but we need to work harder to make those roles available.

What is "dignified work," as you see it? Labor issues are typically associated with the Left. Why should people on the political right be concerned about ensuring the opportunity for dignified work? And have left-wing welfare policies also misunderstood dignified work?

Dignified work enables Americans to make a good living through steady, stable wages, so they can give their time and treasure back to their families and communities. It's the kind of work that has historically empowered the success of our nation, allowing families to raise kids to "do better" than their parents, opening up a world of new opportunities in education, work, and life.

I think of the experience of my own father. My dad immigrated to America in 1956 with little education to find a job and build a stable family life. He and my mother owned a home, raised four children, and cared for my grandparents on the annual wages and tips of a bartender and a maid. We could even afford for my mother to spend most of her time at home when I was young. It was a dignified life that I thank God for.

My parents' story is also a lesson in contrast. The blessing of stability is no longer the norm for working Americans looking to start a family today. This can no longer be ignored. An America without dignified work available means the immiseration of the working class, the disappearance of our middle class, and political instability. But even more fundamentally, it would signify that our leaders failed to provide one of the most important foundations of our common good and promote our nation's general welfare. Politicians all across the ideological spectrum should recognize this obligation.

Democratic welfare policies—even the most well-meaning ones—assume dignity is about how much you can buy as a consumer and fail to make the connection between the various components of the common good. These institutions, like strong families, close communities, dignified work, and living out the mutual obligations of citizenship, are mutually reinforcing and cannot exist in isolation.

A well-paying and stable job is the foundation of family stability and ultimately a healthy society. It teaches skills and creates social obligations that teach parents and children alike the importance of responsibility and hard work. Our economic policies should make good jobs as attainable as possible. Expanding, for example, the child tax credit is one way to make the existing jobs that are available pay more. Alternate proposals like simple cash payments sever the important connection between strong families and dignified work.

You have spoken about how your economic ideas are informed by your social views—by Catholic thought in particular. Have we made a mistake in too often separating economic and cultural issues in our political discourse?

As a Roman Catholic, I find great wisdom in the Church's teachings. Catholic social doctrine is very clear that economic and cultural issues are inextricably intertwined. Material resources are both a necessary condition for groups to fulfill their purposes—for parents to feed their families and contribute to churches and communities—and insufficient in themselves for supporting strong values. As Pope St. John Paul II taught, "the obligation to earn one's bread by the sweat of one's brow also presumes the right to do so. A society in which this right is systematically denied, in which economic policies do not allow workers to reach satisfactory levels of employment, cannot be justified."

A study by David Autor in 2018 found that areas of the United States that faced Chinese import saturation from 1990 to 2014 experienced drops in male employment and, even more concerningly, declining marriage and fertility rates. In communities that bore the brunt of "normalizing" trade relations with China—to put it euphemistically—we see similarly alarming jumps in suicide rates and substance abuse deaths.

The failure of our economic policymaking to pursue a common good has also precipitated disconcerting shifts in family development. To many working Americans, marriage now resembles a luxury good, precluding stable households from ever forming in the first place. Working-class Americans are marrying less and less frequently. The percentage of American children living with both biological parents was identical for affluent and working-class families—95 percent—in 1960, as Charles Murray documented in *Coming Apart*. By 2005, those rates had declined to 85 percent for the affluent and, shockingly, 30 percent for working-class families. For kids, an unstable environment at home translates directly to worse economic outcomes throughout life.

Is there an opportunity for new kinds of political cooperation to address the above issues? Can what you call "common good capitalism" reunite a polarized America?

Societal revitalization, I think, will necessarily start there. I've been pleased that the reception to some of my work has elicited interest from all across the political spectrum.

I do believe that there is a growing recognition of the shortfalls of our current approach to economic policymaking, which gives me hope.

We tend to frame today's economic debates as occurring between free market absolutists and socialists. But that's a false choice.

The Left wants more government programs and more taxes on everything to fund them. Market fundamentalists on the right want to juice the market for more record-setting days in the stock market above all else—even if it means our dependence on China continues expanding up the value chain.

An economics of the common good rejects this binary choice. After all, our nation does not exist to serve the interests of the market or the government; the market exists to serve our nation. If common-good capitalism proves to be politically ecumenical, that's great—we should welcome allies who acknowledge the obligation to orient our economy so it strengthens America and our people.

Tripartism, American Style: The Past and Future of Sectoral Policy

MICHAEL LIND AUGUST 16, 1937

Guess which president made the following remarks:

> There are two sides to every bargain. It is not only human nature, but necessary to progress, that each side should desire to secure a good trade. This is the case in contracts for employment. In order to give wage earners reasonable advantages, their right has been established to organize, to bargain collectively, and to negotiate through their own chosen agents. The principle also of voluntary arbitration has come to exist almost as a right. Compulsory arbitration has sometimes been proposed, but to my mind it cannot be reconciled with the right of individual freedom. Along with the right to organize goes the right to strike, which is recognized in all private employment. The establishment of all these principles has no doubt been productive of industrial peace, which we are at the present time enjoying to a most unusual degree. This has been brought about by the general recognition that on the whole labor leaders are square, and on the whole employers intend to be fair. When this is the case, mutual conference is the best method of adjusting differences in private industry.[1]

If you guessed that the president who spoke those words was Franklin Delano Roosevelt or Lyndon Johnson—or one of the more recent Democratic presidents, Bill Clinton or Barack Obama—you are mistaken.

The speaker was Calvin Coolidge, then governor of Massachusetts, on Labor Day, September 1, 1919.

Ever since the libertarian movement, funded by a tiny number of rich donors, captured the machinery of the Republican Party and the conservative intellectual movement in the post-Reagan era, it has been taboo for any Republican politician to suggest that unions play a legitimate role in America's economy and society. For three decades, what has passed for American conservatism could better be described as "stealth libertarianism"—the free-market, open-borders ideology of the Cato Institute and the Libertarian Party, camouflaged in flags and Bibles to make it more appealing to working-class Republican voters.

The libertarians who hijacked the Right have tried to rewrite history to make it a Manichaean struggle of statists versus libertarians, demonizing Franklin Roosevelt and idealizing Calvin Coolidge. But the real Calvin Coolidge was not a libertarian. Like most Republicans of his era, he was an economic nationalist who believed that American industries and workers should be protected from low-wage foreign competition. And like every Republican president from McKinley to Nixon, he thought that the government should sometimes act as an honest broker in disputes between companies and organized labor that affected the national interest. The secretary of labor for the Harding, Coolidge, and Hoover administrations was James J. Davis, a Welsh immigrant who had begun his career as a steelworker and a union member and who played a role in brokering an end to a coal strike and a railroad strike in 1922.

At the same time, Coolidge was no leftist. He became a celebrity in politics in 1919 when, as mayor of Boston, he defeated a strike by the Boston police by calling out the National Guard. In his 1919 Labor Day speech, he warned: "Of course employment affecting public safety or public necessity is not private employment, and requires somewhat different treatment."

Now guess which president rejected the legitimacy of collective bargaining by public sector employees in this statement:

> All Government employees should realize that the process of collective bargaining, as usually understood, cannot be transplanted into the public service. It has its distinct and insurmountable limitations when applied to public personnel management. The very nature and purposes of Government make it impossible for administrative officials to represent fully or to bind the employer in mutual discussions with Government employee organizations. The employer is the whole people, who speak by means of laws enacted by their representatives in Congress.

The answer is President Franklin Delano Roosevelt, in a letter of August 16, 1937, to Luther C. Steward, the president of the National Federation of Federal Employees. Roosevelt, then in his second term, said that public employee unions were legitimate for some purposes, but that collective bargaining among the government and public employees was "impossible."

Furthermore, like his Republican predecessor Calvin Coolidge, Franklin Roosevelt declared that strikes by public sector workers were illegitimate:

> Particularly, I want to emphasize my conviction that militant tactics have no place in the functions of any organization of Government employees. Upon employees in the Federal service rests the obligation to serve the whole people, whose interests and welfare require orderliness and continuity in the conduct of Government activities. This obligation is paramount. Since their own services have to do with the functioning of Government, a strike of public employees manifests nothing less than an intent on their part to prevent or obstruct the operations of Government until their demands are satisfied. Such action, looking toward the paralysis of Government by those who have sworn to support it, is unthinkable and intolerable.[2]

In reality, Coolidge Republicans and Roosevelt Democrats were not that far apart, agreeing that collective bargaining was legitimate in the private sector but not in the public sector. Before the late twentieth century, mainstream Republicans and Democrats alike agreed with the sentiment expressed by Coolidge in his speech to union officials in 1924: "We have yet a long way to go, but progress has begun and the way lies open to a more complete understanding that will mark the end of industrial strife."[3]

Tripartism, American Style

Tripartism is another word for economic corporatism—the collaboration of labor, business, and government in the national interest. The tripartite approach to what used to be called "industrial relations" has old and deep roots in American politics and policy. In the late nineteenth century, labor conflicts between workers and industrial, railroad, and mining companies often led to violence on both sides, with local police, state national guards, or the U.S. Army sometimes sent to impose order. Disruptive labor violence, combined with the appeal of radical ideologies, including Marxist socialism, anarchism, and syndicalism, led business leaders and anti-revolutionary labor leaders to collaborate in seeking alternative ways to settle industrial disputes. For their attempts to work out a modus vivendi, both the moderate business elites and the moderate union officials have been vilified by generations of unworldly American academic historians, who praise revolutionary radicalism from their university perches.

In 1900, Ralph Easley, a Republican journalist and activist, founded the National Civic Federation (NCF). The organization embodied the tripartite ideal by drawing its members from business, labor, and the larger public. The first president of the NCF was Senator Mark Hanna of Ohio, a wealthy businessman and Republican political leader, and its first vice president was Samuel Gompers, the president of the American Federation of Labor. Other founders included the steel magnate Andrew Carnegie and John Mitchell of the United Mine Workers. The NCF used its influence to urge negotiations in labor disputes and promote laws providing for arbitration in railroad strikes and for workmen's compensation. Dominated by large firms and skilled craft unions, the NCF was opposed by the National Association of Manufacturers (NAM), which represented the owners of small, labor-intensive businesses who tended to be hostile to organized labor in any form.

During World War I, the Wilson administration incorporated tripartism into its economic mobilization strategy, in order to prevent clashes between business and labor from impairing war production. AFL president Samuel Gompers served on the Council of National Defense as chair of the Labor

Advisory Board. Another AFL official, Hugh Frayne, was chairman of the Labor Division of the War Industries Board, an agency which organized industrial sectors into "commodity sections" and carried out industrial policy by means of standardization and price-fixing. The War Labor Policies Board, headed by Felix Frankfurter, with Assistant Secretary of the Navy Franklin Roosevelt representing the navy, was charged with formulating labor policies in war industries.

Following the war in October 1919, President Woodrow Wilson convened a National Industrial Conference that brought together representatives of capital and labor in the hope of continuing wartime cooperation. John D. Rockefeller Jr. argued that businesses should recognize and cooperate with unions: "On the battle fields of France this Nation poured out its blood freely in order that democracy might be maintained at home and that its beneficent institutions might become available in other lands as well. Surely it is not consistent for us as Americans to demand democracy in government and practice autocracy in industry."[4]

Many of the gains of the U.S. labor movement were reversed, however, by a postwar employer counteroffensive amid a wave of strikes and a climate of Red Scare hysteria. But the Republican presidential administrations of the 1920s were by no means as hostile to organized labor as many today assume they were. As we have already seen, Vice President Calvin Coolidge, who became president when Harding died of a heart attack in 1923, was not opposed in principle to trade unions or collective bargaining in the private sector. And during the Great Railroad Strike of 1922, the anti-union injunction obtained by President Harding's attorney general, Harry Daugherty, was so unfair that two members of Harding's cabinet, Commerce Secretary Herbert Hoover and Secretary of State Charles Evans Hughes, considered resigning in protest.[5]

Coolidge's successor in the White House, Herbert Hoover, maligned by today's liberals as a heartless reactionary and idolized by many of today's libertarians as a free market hero, was neither. An engineer by background, Hoover became a hero for his role in organizing food relief in Europe during and after World War I, and both Democrats and Republicans sought to enlist him as a presidential candidate. As secretary of commerce under presidents Harding and Coolidge, and then as president in his own right, Hoover promoted a version of tripartism known as "associationalism," which tiptoed to the very edge of formalized corporatism without crossing it. Under associationalism, self-governing trade associations—the successors to the commodity sections of World War I economic mobilization—would set common standards and best practices for all of their members. Hoover also acknowledged the legitimacy of trade unions while insisting on nonviolent dispute resolution.

Nor did Hoover respond passively to the Great Depression that followed the crash of 1929. He rejected the callous advice of "liquidationists" like Treasury Secretary Andrew Mellon, who thought the crisis should be allowed to run its course. To prevent aggregate demand from shrinking further, Hoover urged businesses to maintain wages and employment. He set up many of the agencies that would later be used by his successor Franklin Roosevelt to combat the Depression during the New Deal. Raymond Moley, a member of Roosevelt's "Brains Trust," wrote:

> When we all burst into Washington . . . we found every essential idea [of the New Deal] enacted in the 100-day Congress in the Hoover administration itself. The essentials of the NRA [National Recovery Administration], the PWA [Public Works Administration], the emergency relief setup were all there. Even the AAA [Agricultural Adjustment Act] was known to the Department of Agriculture. Only the TVA [Tennessee Valley Authority] and the Securities Act was [*sic*] drawn from other sources. The RFC [Reconstruction Finance Corporation], probably the greatest recovery agency, was of course a Hoover measure, passed long before the inauguration.[6]

Another member of the Brains Trust, Rexford Tugwell, agreed with Moley: "The New Deal owed much to what he [Hoover] had begun," with many New Deal programs and agencies "begun during Hoover's years as secretary of commerce and then as president."[7]

Although Hoover turned bitterly against Roosevelt, the two men had been on friendly terms when both served in the Wilson administration. In 1922 Hoover, then secretary of commerce, appointed Roosevelt as his successor as chairman of the American Construction Council, a peak association which sought to promote progress and standardization in the construction industry in the service of the associationalist vision which Hoover and Roosevelt shared.

Who's Afraid of the Blue Eagle?

Following his election in 1932, Franklin Roosevelt, who had been assistant secretary of the navy under Woodrow Wilson, sought to revive the U.S.

economy by means of a peacetime version of wartime mobilization. The Reconstruction Finance Corporation (RFC), created under Hoover and expanded under Roosevelt, was a reincarnation of the War Finance Corporation of World War I, just as the Securities and Exchange Commission (SEC) was inspired by the wartime Capital Issues Committee.[8]

The most important federal agency inspired by earlier wartime corporatism was the National Industrial Recovery Administration, later renamed the National Recovery Administration (NRA), created by the National Industrial Recovery Act (NIRA) in 1933. Not only was the NRA modeled on the War Industries Board of World War I, but it was also led by General Hugh Johnson, who had worked for the financier Bernard Baruch, the head of the WIB. Under NRA supervision, industries were organized into government-supervised, self-regulating sectors similar to the commodity sections of World War I. With government approval, in return for partial exemption from antitrust laws to permit firms to cooperate, businesses in each sector were to draw up industry-wide codes of conduct which included sectoral minimum wages. Under section 7(a) of the NIRA, inspired by the wartime model of the National War Labor Board, each industry code had to guarantee labor's "right to organize and bargain collectively through representatives of their own choosing."[9]

As a program for creating a form of sector-specific, flexible tripartism which would incorporate collective bargaining and employer benefits and which would serve as an alternative both to the arbitrary despotism of employers and to more rigid, direct, centralized, and uniform government regulation, the NIRA legislation made sense. Unfortunately, succumbing to the tendency of politicians to try to solve multiple problems with a single reform, the Roosevelt administration sought to combine long-term reform with short-term economic recovery, which would be driven, it was hoped, by higher sectoral minimum wages. Along with other design defects, including the vagueness of the concept of "fair competition," an excess of narrowly defined industry classifications, and poor leadership by Hugh Johnson, this confusion of purposes ensured that the rollout of the NRA would be rather shambolic.

In 1935, the NRA was abolished when the Supreme Court struck down its enabling legislation, on the narrow technical grounds that Congress had delegated too much authority to the president. But the wreckage of the NRA was plundered to construct a sort of virtual corporatism that structured the U.S. economy from the 1930s to the 1970s. Some NRA industry codes were reborn as regulations in commission-governed industries like aviation, trucking, and coal that were treated as public utilities, while the oil industry in the United States remained cartelized and regulated in practice until the 1970s. Instead of the sector-specific laws regulating minimum wages, hours, and pensions—which were to have been negotiated and agreed on by firms and unions in each industry sector and then ratified by the NRA—the federal government directly imposed a one-size-fits-all national minimum wage and eight-hour workday in 1938, in addition to the federal Social Security program that had been enacted earlier in 1935. The Wagner Act of 1935 turned section 7(a) of the NIRA into the statute which, as subsequently amended, governs collective bargaining in the United States to this day, albeit rigidly and imperfectly.

A compelling case can be made that the Second New Deal that produced today's U.S. labor law regime was inferior to the First New Deal that produced the NRA. Something like the NRA system of sector-specific tripartism was adopted in Germany, the Nordic countries, Britain, and many other democracies. Both employers and unions in those nations have tended to prefer negotiating their own deals among themselves to a single set of fixed rules imposed by the central government on all sectors of the economy. Because pay levels were set in sectoral negotiations between employer associations and unions, neither Germany nor Britain had a single economy-wide minimum wage until recently, when the growth of a low-wage "precariat" as a toxic by-product of neoliberal labor market deregulation made a national minimum wage an unfortunate necessity in those countries. Had it survived in the United States, the NRA system would have been more resilient, more business-friendly, and more union-friendly than the rigid federal legal regime that replaced it.

With the regularity of a cuckoo clock, however, the sectaries of economic libertarianism like Kevin Williamson, author of the immortal treatise *The End Is Near and It's Going to Be Awesome: How Going Broke Will Leave America Richer, Happier, and More Secure* (2013) and Jonah Goldberg, author of another classic, *Liberal Fascism: The Secret History of the American Left, from Mussolini to the Politics of Change* (2009), pop out of the woodwork to chirp that Fascist Italy was the model for the New Deal in America. In reality, the New Deal was an outgrowth of the native American traditions of tripartism in the 1900s, World War I corporatism, and the associationalism of the 1920s. The Blue Eagle symbol of the NRA for cooperating firms was no more a totalitarian flag than the Good Housekeeping Seal of Approval for home appliances or LEED certification for environmentally sustainable buildings.

It is true that Franklin Roosevelt spoke of “that admirable Italian gentleman,” and General Hugh Johnson, the NRA director whose bumbling and bombast led FDR to fire him, invoked “the shining name” of Mussolini.[10] But already in 1927, Winston Churchill had called Mussolini “the Roman genius” and said: “What a man! I have lost my heart! . . . He is one of the most wonderful men of our time.”[11] A few years later, in 1933, Churchill described Mussolini as “the greatest lawgiver among men.”[12]

It is difficult to imagine now, but in the 1920s and early 1930s, before the horrors of Stalinism and the eclipse of Italian Fascism by German National Socialism, Lenin and Mussolini were seen by many in the West as bold modernizers who could be admired without much regard for their ideologies. But most of those in democratic nations who praised Mussolini for making the trains run on time did not endorse the fascist police state any more than modern Westerners who view the high-speed rail investments of China as a model for infrastructure policy favor one-party Communist dictatorship. Sometimes a train is just a train.

Anti–New Deal libertarians have embarrassing intellectual ancestors of their own. One of the heroes of American libertarianism, Ludwig von Mises, wrote in 1927: “It cannot be denied that [Italian] Fascism and similar movements aiming at the establishment of dictatorships are full of the best intentions and that their intervention has, for the moment, saved European civilization. The merit that Fascism has thereby won for itself will live on eternally in history.”[13]

Half a century later, other libertarian gurus, including Milton Friedman and Friedrich von Hayek, defended the dictatorship of Augusto Pinochet in

Chile because the regime, while censoring, torturing, and murdering its political opponents, carried out free-market reforms they favored, like privatizing retirement policy and cracking down on trade unions. In 1977, after meeting with Pinochet, Hayek told journalists that he had informed the tyrant that his writings proved that unlimited democracy does not work, and he boasted proudly that Pinochet had asked him for what he had written on that issue. According to Hayek, on another occasion, sometimes "it is necessary for a country to have, for a time, some form or other of dictatorial power. As you will understand, it is possible for a dictator to govern in a liberal way. And it is also possible for a democracy to govern with a total lack of liberalism. Personally, I prefer a liberal dictator to democratic government lacking in liberalism." When Hayek wrote to British prime minister Margaret Thatcher, commending Pinochet's dictatorship as a model of pro-market government, Thatcher rebuked him, writing that because Britain had "democratic institutions and the need for a high degree of consent, some of the measures adopted in Chile are quite unacceptable. Our reform must be in line with our traditions and our Constitution."[14]

Yet at least libertarian conservatives like Williamson and Goldberg keep the memory of the NRA alive in their unpopular but lavishly funded little sect, if only for purposes of ritual denunciation. The First New Deal has been erased from the consciousness of American progressives altogether. The typical educated center-left American thinks of the New Deal entirely in terms of "Keynesian" countercyclical spending to preserve aggregate demand.

But there was much more to the thought of Keynes than deficit spending in downturns. Keynes had a vision of the future of the industrial economy that can be described as corporatist. In his 1926 essay "The End of Laissez-Faire," Keynes wrote:

> I believe that in many cases the ideal size for the unit of control and organisation lies somewhere between the individual and the modern State. I suggest, therefore, that progress lies in the growth and the recognition of semi-autonomous bodies within the State . . . bodies which in the ordinary course of affairs are mainly autonomous within their prescribed limitations, but are subject in the last resort to Parliament.
>
> I propose a return, it might be said, towards medieval conceptions of separate autonomies. But, in England at any rate, corporations are a mode of government which has never ceased to be important and is sympathetic to our institutions.[15]

Tripartism in America from the New Deal Era to the Age of Neoliberalism

In World War II, as in World War I, the United States and its allies adopted versions of tripartite corporatism to ensure that conflict among employers and workers would not disrupt wartime mobilization. Using the leverage of defense spending, the National War Labor Board enacted a "maintenance of membership" rule mandating that all new employees in a unionized plant belonged to the union. By 1944, membership in the United Steelworkers had grown from 225,000 to 708,000, while membership in the United Auto Workers ballooned from 165,000 to more than a million.[16] More than 35 percent of the nonagricultural labor force was unionized by 1945.

To one degree or another, every economy in Western Europe and North America after 1945 was based on corporatism—that is, tripartism or social corporatism, compatible with representative democracy, not the authoritarian state corporatism adopted by interwar fascist regimes and by postwar dictatorships in Spain, Portugal, and Latin America. Elaborate forms of national sectoral bargaining were created in postwar Sweden and Austria. In the Federal Republic of Germany, collective bargaining was supplemented by codetermination, the practice of having union representatives on the boards of large corporations. In France union membership has always been relatively low, but the results of employer-union bargaining have covered great numbers of workers.

Far from being neofascists, postwar democrats feared that the exclusion of the working class from any influence on corporate decision-making might lead them to turn to radical ideologies like fascism and communism. One study notes, "The shadows of Fascism and/or foreign threat were decisive or at least significant in all the most successful and enduring peace settlements."[17]

The labor historian Nelson Lichtenstein points out: "Building upon the framework established by the National War Labor Board, the big industrial unions settled into a postwar collective-bargaining routine that increased real weekly wages some 50% in the next two decades and greatly expanded their fringe benefit welfare packages."[18] Following the Treaty of Detroit in 1950—a five-year contract negotiated by the United Auto Workers (UAW) with General Motors—and similar deals, the United States had a de facto system of corporatism in its concentrated manufacturing sector, which influenced standards for wages and benefits in many nonunionized sectors.

Union membership in the United States peaked in the 1950s at around a third of the workforce. Meanwhile, the long-struggling farm sector was stabilized and integrated with government by means of a system of price supports and subsidies.

While many business executives continued to grumble, the legitimacy of labor-capital bargaining was accepted by mainstream Republicans as well as Democrats in the postwar era. Soon after World War II ended, in November 1945, the Truman administration sponsored a National Labor-Management Conference. In a speech delivered at this conference, Eric Johnston, the president of the U.S. Chamber of Commerce, declared, "Labor unions are woven into our economic pattern of American life, and collective bargaining is a part of the democratic process. I say recognize this fact not only with our lips but with our hearts."[19] In a letter to his brother Edgar in 1954, President Eisenhower wrote:

> Should any political party attempt to abolish social security, unemployment insurance, and eliminate labor laws and farm programs, you would not hear of that party again in our political history. There is a tiny splinter group, of course, that believes you can do these things. Among them are H. L. Hunt (you possibly know his background), a few other Texas oil millionaires, and an occasional politician or business man from other areas. Their number is negligible and they are stupid.[20]

The historian Robert Griffith described Dwight Eisenhower's vision as a "corporate commonwealth": "Common to all of these activities was an attempt to fashion a new corporative economy that would avoid both the destructive disorder of unregulated capitalism and the threat to business autonomy posed by socialism."[21] In his 1952 reelection campaign, President Eisenhower told the national convention of the American Federation of Labor: "I have no use for those—regardless of their political party—who hold some foolish dream of spinning the clock back to days when unorganized labor was a huddled, almost helpless mass."[22] Presidents Kennedy and Johnson likewise continued the tradition, dating back to William McKinley and Theodore Roosevelt, of the president serving as an honest broker in private sector labor disputes that affected the national economy. In 1972 Nixon was the only modern Republican president to receive a majority of the union vote.[23]

President Ronald Reagan's decision to fire eleven thousand striking air traffic controllers on August 5, 1981, was interpreted both by liberal opponents and by libertarian conservatives as a salvo in the war against all organized labor, public and private. But Reagan's approach to this strike did not differ significantly from precedents set by earlier presidents who are typically thought of as friendly to labor. As we have seen, Franklin Roosevelt had agreed with Calvin Coolidge that strikes by public sector workers could not be tolerated. And in 1952, during the Korean War, President Harry Truman sought to avert a disruptive steelworkers' strike by preemptively nationalizing the American steel industry, a policy struck down by the Supreme Court on the narrow, technical grounds that the president lacked the statutory authority which would have permitted him to do so.[24]

Reagan, who had been a union official himself as the elected head of the Screen Actors Guild, never denied the legitimacy of unions in the private sector. In a televised address to the American people on October 9, 1982, Reagan denounced the Soviet-backed Communist regime of Poland for its crackdown on Lech Wałęsa's dissident Solidarity union and other Polish labor unions:

> Ever since martial law was brutally imposed last December, Polish authorities have been assuring the world that they're interested in a genuine reconciliation with the Polish people. But the Polish regime's action yesterday reveals the hollowness of its promises. By outlawing Solidarity, a free trade organization to which an overwhelming majority of Polish workers and farmers belong, they have made it clear that they never had any intention of restoring one of the most elemental human rights—the right to belong to a free trade union.

For Ronald Reagan, if not for the libertarian pseudo-conservatives today who call themselves Reaganites, the right to join a labor union was "one of the most elemental human rights."[25]

Reagan depended for his victory in part on the same sort of culturally conservative but economically progressive voters who would later win the White House for Trump. To avoid alienating these blue-collar "Reagan Democrats," he discarded the libertarian Right's proposed reforms to privatize or downsize FDR's Social Security and LBJ's Medicare, the two biggest government programs. Pragmatic in economics and cautious in military affairs, Reagan talked like Goldwater but governed like Eisenhower and Nixon. Only under the two Bushes did the influence of economic libertarians who promoted free trade, mass immigration, and cuts to entitlements peak in the GOP.

Meanwhile, the Democratic party has exchanged its blue collar, private sector union base for more upscale constituencies. Beginning in the 1970s, politicians like Bill Clinton and Al Gore, many of them from the low-wage, anti-union South, sought to replace the working-class, unionized, midwestern, and northeastern base of the New Deal Democrats, who were mocked as "Old Democrats," with Wall Street bankers and Silicon Valley tycoons. As president, Clinton pushed nafta through Congress and secured the admission of China to the WTO, licensing U.S. multinationals to replace American factories with new ones in countries with cheap and repressed labor. Many U.S. corporations and financial interests, sacrificing the U.S. economy to corporate and personal profit, transferred or ceded much of America's industrial base to authoritarian China, America's greatest potential military and commercial rival. For most Americans, the well-paying "knowledge sector" jobs promised by neoliberal Democrats never appeared; instead there were mostly a lot of low-wage, non-union jobs in health care, retail, and hospitality—and, for those not lucky enough to hold steady work, precarious contract labor like that of exploited Uber and Lyft drivers.

Bernie Sanders and Donald Trump in 2016 represented the revenge of the repressed against the bipartisan neoliberal managerial elite that had misgoverned the United States for a generation. In different ways, Sanders—by supporting organized labor and social insurance expansion—and Trump—by emphasizing manufacturing jobs—promised to create a modern version of the mid-century American social contract, which had been underpinned by tripartite labor-business-government collaboration.

The Case for Sectoral Policies

Does tripartism have a future in the United States? Although the United States can and should onshore some lost industrial supply chains, most old-fashioned manufacturing jobs are not going to return and private sector trade unions in their twentieth-century form probably have no future. Nevertheless, as Republican thinkers like Oren Cass have argued, a program of national economic development which incorporates novel forms of "alt labor" has the potential to organize alienated segments of the American working class, while boosting the productivity and growth of the American economy.[26]

The centerpiece of a post-neoliberal program to address the double crisis of the American economy and the American social contract should be sectoral policy, combining industrial policy with business-labor-government tripartism. In spirit it would be a return to the vision of the National Civic Federation, the associationalism of Herbert Hoover, the First New Deal corporatism of Franklin Roosevelt, and the corporate commonwealth of Dwight Eisenhower. It would build on their insights—and also learn from their mistakes.

In retrospect, the biggest failure of earlier American versions of tripartism was the failure to distinguish among different broad economic sectors with different dynamics. Already by the 1900s, economists recognized that in certain industries characterized by network effects, like railroads, there was a tendency toward natural monopoly, and a resulting threat of predatory pricing by the monopolies. The use of antitrust law to break up these networks would reduce their efficiency, so for more than a century the preferred policies have been either public ownership of enterprises in these industries or their conversion into privately owned but publicly regulated utilities.

By the 1930s, in another development moving beyond crude nineteenth-century free market liberalism, Joan Robinson, Edward Chamberlin, and other economists developed the theory of imperfect markets. Earlier economists (and many laypersons to this day) have mistakenly treated oligopoly as simply an intermediate phase on the road from free competition to monopoly. By the mid-twentieth century, economists recognized that oligopolistic competition in imperfect markets was distinct in kind both from monopoly and from competition in highly competitive markets. Joseph Schumpeter spoke of "corespective" competition among oligopolistic firms and emphasized that dynamic oligopolies compete not on the basis of price-cutting but on the basis of innovation that leads to new products, a process that he called "creative destruction" or "industrial mutation." An example would be Apple, originally a personal computer company, and Google, originally a search engine, competing with each other in the new wireless phone market.

In the 1960s, John Kenneth Galbraith divided the economies of the United States and similar advanced industrial nations into the "planning system" dominated by a small number of large, high-tech corporations, which have the power to substitute private planning for market forces in many areas, and "the market system," a more competitive realm composed mostly of small businesses. A little later, the business historian Alfred Chandler identified two sectors of the economy—the oligopolistic "core," which contains capital-intensive manufacturing firms and others which benefit from increasing returns to scale and scope and from network effects, and the "periphery," the equivalent of Galbraith's "market system."

Building on the insights of Schumpeter and John Kenneth Galbraith, the late William Baumol observed that technological innovation is driven today not by individual inventors or small startups but chiefly by competition among dynamic oligopolistic firms with deep R&D budgets. Baumol's book *The Free Market Innovation Machine*, in which he set forth this argument, would have been more accurately titled *The Imperfect Market Innovation Machine.*

On the basis of a century of sophisticated economic thought based on observation rather than axioms, then, we can distinguish among three sectors of a modern technological economy: the natural monopoly sector, the dynamic oligopoly sector, and the traditional market sector.

This analysis of the three major sectors of a modern economy allows us to better understand the flaws in the design of the National Industrial Recovery Act in the First New Deal. While there was opposition from business in all sectors, supporters of the NIRA tended to be found among the leaders of large corporations. These big, advanced firms already paid well, so they were not threatened by the prospect of sector-wide minimum wages, and many of them already paid generous benefits, so the mandating of minimum employee benefits by NRA sectoral codes was not a threat either. In contrast, industry-wide minimum wages and benefits threatened to drive many small firms out of business in the low-tech, labor-intensive traditional market sector. And it was easier for a few big firms in a capital-intensive, technology-based sector to arrive at a consensus than it was for many tiny firms in a decentralized industry.

From all of this it follows that sectoral policies based on tripartite corporatism are more suited to large firms in the dynamic oligopoly sector than to the many small firms of the traditional market sector. Indeed, something like this emerged naturally in the United States in the aftermath of the collapse of the First New Deal, by the 1940s and 1950s. In the concentrated manufacturing sector, collective bargaining was institutionalized; in the dispersed traditional market sector, the federal minimum wage, supplemented by state and local minimum wages and by government safety nets, provided basic protection for nonunion workers. A similar two-tier pattern can be seen in the democracies of Western Europe.

In retrospect it was folly for the Roosevelt administration, under the auspices of the NRA, to try to convene businesses to draft codes in hundreds of narrowly defined industries all at once. It would have been far better to limit the tripartite system to a small number of industries in the dynamic oligopoly sector, like automobile manufacturing and steel.

Sectoral Policy for Natural Monopolies and Traditional Markets

Each of the three major sectors in a modern technology-based economy, then, requires different and appropriate industrial policies and labor policies. The natural monopoly sector includes traditional grids like road and rail systems and electric, water, and sewage utilities. Whether search engines like

Google and social media like Facebook and Twitter, which exploit network effects, can be viewed as natural monopolies as well is debatable.

The interest of the public in these natural monopolies is not limited to uninterrupted service and low costs for individual citizens and firms. In the case of infrastructure and energy utilities in particular, the national government has an interest in making them resilient against terrorism and sabotage and ensuring that they are innovative rather than technologically stagnant. As for workers, the insulation of public utilities from the rigors of markets can make long-term careers at decent if not exorbitant wages possible in the natural monopoly sector.

In many other democracies, industries that are considered to be public utilities have been socialized. In the United States, the alternative to direct socialization has typically been the combination of private ownership with rate setting and oversight by public utility commissions.

At the other extreme, in terms of market concentration, is what I am calling the traditional market sector—Galbraith's "market system" and Chandler's "periphery." This is the realm of industries in highly competitive markets in which there are no increasing returns to scale or scope and no network effects. A giant automobile factory is more efficient than a tiny mom-and-pop car factory, if such a thing can be imagined, but a chain of restaurants does not necessarily produce better food at much lower prices than a single family-owned restaurant.

The traditional market sector is where low-tech, low-profit small businesses tend to be found, as well as labor-intensive occupations like nursing, in which mechanization or automation is difficult or impossible at present. This sector is currently generating most of the new jobs in the United States, many of which are poorly paid and come with few or no benefits. In the traditional sector, high levels of competition drive down the overall profits to be distributed to workers, managers, and owners alike. Unable to pay generous wages or provide generous benefits, many of the low-profit firms in the traditional market sector are also unable to invest in innovation.

The limits imposed by competition on firms in the traditional market sector suggest that raising sector-wide innovation and increasing the overall incomes (though not necessarily the market wages) of the workers in this sector should be in part the responsibility of government. In industries within the traditional market sector, government agencies, working with research universities, nonprofits, and trade associations, can engage in R&D to benefit the industry as a whole and disseminate innovations to firms by means of technology extension programs. Agricultural extension programs and agricultural and mechanical colleges (A&Ms) provide a successful historic model for state-led innovation in highly decentralized industries with many small, low-profit entities.

In the traditional sector, the government can also directly create or help firms organize to create purchasing cooperatives, insurance cooperatives, and export marketing boards. This will enable small businesses, in groups, to enjoy the economies of scale or monopsony bargaining power possessed by many large corporations on their own. Needless to say, antitrust law would have to recognize exemptions to allow these cooperative enterprises.

In each of these cases, the government is solving a problem of collective action by providing, directly or indirectly, as a public good or service, something that small- and medium-sized firms are unlikely or unable to pay for on their own. This kind of government support for mostly small firms has nothing whatever to do with the misguided contemporary U.S. practice of showering tax favors and exemptions from regulations on individual small businesses only because of their size, a practice that should be eliminated in favor of size neutrality in tax and regulatory policy.[27]

What about the workers in the traditional market sector? A century ago, reformers recognized that what were called “the sweated trades”—occupations like piecework done by largely female workers, often in their own homes—could not be easily unionized for purposes of collective bargaining. An alternative to trade unions in these occupations was found in wage boards—government commissions with members representing business, workers, and sometimes consumers, who would reach a consensus and set common wage scales and work rules for the occupation as a whole. Recently, Governor Andrew Cuomo of New York used a long-moribund wage board statute to raise wages for fast-food workers in the state, and proposals for reviving this approach have been made.

Raising wages—by higher statutory minimum wages, wage boards, collective bargaining, tight labor markets created by immigration restriction, shorter workweeks, or other means—need not always increase unemployment, because better-paid workers add to aggregate demand. But at some point increasing wages may indeed have the dire effects predicted by employer lobbies and libertarian ideologues.

An alternative is to raise the incomes of low-wage workers without raising the wages paid to them by employers. This can be done either by wage subsidies or by decommodification. Wage subsidies "top up" wages too low for an individual, much less a family, to live on. Decommodification refers to providing necessities in the form of free or publicly subsidized goods or services, allowing workers with low wages to have more discretionary income.

Wage subsidies in general are a bad idea. By lowering the cost of labor, they reduce the incentive of employers to invest in labor-saving, innovative technology, which could boost the productivity of the industry and the nation as a whole. Even in low-wage industries, the wages should be high enough to spur some productivity growth. Even worse, if low market wages are supplemented by government wage subsidies with no regard for particular occupations, the result can be "induced demand" by consumers for frivolous or exploitative jobs: dog walkers, nail salon workers, gardeners, and so on. Combined with an immense pool of cheap labor in the form of low-wage immigrants, both authorized and unauthorized, the result in the United States has been an incipient caste system, with a steadily growing underclass, often foreign-born, in menial, dead-end personal service jobs.

Decommodification is a better approach to helping lower-wage workers, native and immigrant alike, in a democratic society that does not want a permanent servant class. Economists define "merit goods" as goods or services like health care to which all citizens should have access, whether they can afford them or not. By lowering the cost of essential merit goods, or making them free through vouchers or through public or nonprofit provision, decommodification increases the standard of living of low-wage workers, who have more discretionary income when basic necessities are paid for directly or indirectly by the state. What is more, decommodification can help to raise wages in the low-wage sector, even in the absence of unions and collective bargaining, by letting individual workers "hold out" longer before being forced to accept jobs. Worker bargaining power is weakened by wage subsidies that require workers to take any job available, and strengthened by decommodification, which forces employers to attract workers who are not desperate.

To be sure, high market wages could make some important labor-intensive services like elder care or home health care unaffordable for members of the working class and middle class. In such cases, wage subsidies should be considered. But as Lauren Damme and I have suggested in *Democracy Journal*, it is better to provide necessary services like housework for low-income, homebound elderly people in the form of the service vouchers pioneered in a number of European countries, allocated to eligible consumers and restricted to particular kinds of jobs, rather than in the form of wage subsidies that are showered on all low-income workers regardless of their occupations. It is one thing for taxpayers to specifically subsidize the wages of house cleaners for elderly shut-ins and quite another to indiscriminately subsidize the wages of pool cleaners, gardeners, and maids for rich Hollywood actors.[28]

As paradoxical as it seems, then, the case for direct government industrial policy and direct state provision of benefits is strongest in the competitive market sector with its many small, low-margin firms. The situation is different in the dynamic oligopoly sector, to which I now turn.

The Dynamic Oligopoly Sector: A New Tripartism

Firms in the dynamic oligopoly sector perform a disproportionate amount of private sector R&D and tend to pay better and provide more generous employer benefits than firms in the traditional market sector. Imperfect markets in this sector and the absence of intense price competition allow a small number of big firms to exercise market power—to be "price makers," not "price takers," in the jargon of economics.

From the point of view of old-fashioned Jeffersonian/Brandeisian producerists who hate bigness in any form, the market power of oligopolies, as well as monopolies, is intolerable. Oligopolistic firms should be broken up by antitrust authorities. But this naïve view is a relic of preindustrial economics, when the only sector was the traditional market sector in which firms compete chiefly on the basis of price, including low labor costs, not on the basis of technology-driven product and service innovation.

A more realistic response to the market power of oligopolistic firms is to treat the higher prices their market power allows them to charge as a kind of government-approved private tax on consumers. If the tax is recycled into R&D, producing innovative products that improve the lives of consumers for generations to come, it is well spent. The private tax is also well spent if it goes to higher wages and benefits for the workers in that sector, who then spend money on goods and services provided by firms and workers in the traditional market sector. The classic example is provided by the well-paid, unionized auto workers of yesteryear, who spent their paychecks partly on local haircuts, restaurants, and bowling alleys.

As we have seen, the lack of market power on the part of low-profit firms in the highly competitive traditional market sector makes it necessary for the government to directly provide services like technological innovation and worker benefits which those firms themselves find it difficult or impossible to provide. But in the concentrated dynamic oligopoly sector, the government can save the taxpayers some money by a kind of indirect rule, commanding or incentivizing the firms themselves to pay for research and employer-provided benefits.

A twenty-first-century version of tripartism in America would focus chiefly on the dynamic oligopoly sector. It should begin with the federal government's existing sector-specific policies in the defense industrial base, overseen by the Department of Defense. Even in the absence of immediate threats, the possibility that other great powers could, in the future, threaten the United States militarily or seek to drive it out of global markets and strategic industries would justify a permanent industrial policy designed, in the words of Alexander Hamilton's "Report on Manufactures" (1791), to render the United States "independent on foreign nations for military and other essential supplies."[29]

The defense industrial base of the United States should be defined much more broadly than defense contractors supplying weapons, vehicles, and materiel to the armed services. To prevent the emergence of two separate industrial sectors, one military and one civilian, the "strategic industrial base" should include all dual-use industries which, if necessary, could be converted to wartime production. In these industries, national security requires supply chains to be diverse and located either in the United States itself or in close allies who cannot be threatened by blockades—Canada and Mexico, for instance, rather than Japan or South Korea or Europe.

In the dynamic oligopoly sector, including national manufacturing, unlike in the traditional market sector, the government can achieve many of its policy goals indirectly, by backing collaboration among firms and also between management and organized labor within firms. To promote interfirm collaboration under government oversight in the strategic industries, strict antitrust enforcement should be relaxed in particular areas. In the traditional market sector, it makes sense for government-funded labs to fund industry-wide innovation, given the inability of most small firms to do so. But the government can relax antitrust laws to allow major industrial firms to pool their resources in R&D and share the results—including patents—among all of the members of a research consortium.

Joint efforts by firms in the dynamic oligopoly sector also make sense in the case of training. In a free market, firms will have a reduced incentive to train workers, for fear that the workers will then quit and use their skills at a rival firm. One way around this dilemma of collective action is for the government to mandate sectoral training programs for all of an industry's workers, funded by contributions from all of the firms that could benefit.

Labor policy, like R&D and worker training, should be made at the sectoral level, not the firm level, with government oversight and approval. Wages, hours, and benefits should be negotiated between representatives of all of an industry's employers and all of an industry's workers. While employer-controlled "company unions" should be avoided, the representatives of workers need not be old-fashioned closed-shop unions. Elected workers councils might send representatives to sectoral bargaining negotiations. Brishen Rogers has suggested that, in return for mandatory bargaining at the occupational or sectoral level, workers could be given unfettered freedom to vote for their labor representatives.[30]

In the strategic industrial sector, the government has not only the right but the duty to limit offshoring by firms. Local content requirements in strategic industrial sectors are appropriate, not only for the value added by firms but also for some of the inputs that they use in production.

A new U.S. industrial policy should also encourage the immigration and naturalization of talented and skilled immigrants from all over the world. But corporations should not be allowed to use immigrants with inferior rights to undercut U.S. citizen workers and permanent legal residents. To that end, legal arrangements like H-1B visas, which bind indentured workers to specific employers, should be banned in designated strategic industrial sectors, in which only citizens and legal permanent residents with green cards, who possess full economic and legal rights, should be employed. A points system like the ones used in Canada and Australia would ensure that the future population of the U.S. is chosen by the U.S. government, on the basis of transparent criteria, not by corporations interested only in short-term profit. And all of these reforms should be accompanied by programs to boost the ability of disadvantaged Americans of all races and regions to join the industrial workforce.

The objective of these sectoral policies in the dynamic oligopoly sector is not to "pick winners" or bestow subsidies on politically favored national champions. Rather, the goal should be to preserve, expand, and upgrade a permanent U.S.-based “industrial commons” in traditional industries like steel and aerospace and automobiles and new industries like robotics and biotech, while providing good jobs for upwardly mobile U.S. citizens and naturalized immigrants. Well-designed sectoral policies can promote national security, national productivity growth, and inclusive national prosperity all at once.

Sectoral Policy after Neoliberalism

Sectoral policy makes sense. Natural monopolies should be assigned to the oversight of public utility commissions representing major interest groups and viewpoints. At the same time, federal, state, and local governments should play a large role in R&D, technology extension, and public benefits in the low-productivity, low-profit traditional market sector. And within the dynamic oligopoly sector, where manufacturing is found, a new tripartism should be pioneered in strategic industries of military as well as commercial importance, in the emerging global environment of U.S. rivalry with China and other great powers. In both the traditional market sector and the dynamic oligopoly sector, there is ample scope for the relaxation of antitrust laws to permit multiemployer industrial policy and sector-wide collective bargaining among representatives of employers and labor.

Notwithstanding the importance of grassroots labor activism, in mid-twentieth-century America unionization flourished chiefly as a side effect of top-down national industrial policy pursued for other means, including war and recovery from the Great Depression. Tripartite labor-business-government collaboration during World War I and World War II made possible the massive expansion of organized labor and collective bargaining in the mid-twentieth century and the subsequent social peace and widespread prosperity. If working-class Americans are ever again to enjoy the benefits of mass membership labor organizations of some kind, it will probably not be as a response to grassroots mobilization from below, employer by employer, state by state. More likely, any revival of worker empowerment in the United States will result from a much larger and more comprehensive program of national development carried out by the federal government in the service of military strength and economic growth, a national industrial policy of which institutionalized employer-worker bargaining would be only one of several elements.

A bipartisan consensus along these lines can coalesce only if economic neoliberalism is defeated within the Democratic Party and if the Republican Party ends its fling with radical free market libertarianism. In 1906, a young Winston Churchill described the end of laissez-faire liberalism's hegemony in Britain, which had found its most ardent supporters among the business elite and the professional class. His words are just as relevant to the United States in the third decade of the twenty-first century:

> The great victories had been won. All sorts of lumbering tyrannies had been toppled over. Authority was everywhere broken. Slaves were free. Conscience was free. Trade was free. But hunger and squalor and cold were also free and the people demanded something more than liberty.[31]

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[3] Coolidge, 83.

[4] U.S. Department of Labor, *Proceedings of the First Industrial Conference (Called by the President), October 6 to 23, 1919* (Washington, D.C.: Government Printing Office, 1920), 144, quoted in Larry G. Gerber, "Corporatism in Comparative Perspective: The Impact of the First World War on American and British Labor Relations," *Business History Review* 62, no. 1 (Spring 1988): 119.

[5] Richard Gid Powers, *Not Without Honor: The History of American Anticommunism* (New York: Free Press, 1995), 70.

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[7] Amity Shlaes, *The Forgotten Man: A New History of the Great Depression* (New York: HarperCollins, 2007), 149, quoted in Horwitz.

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[9] Marc Allen Eisner, *From Warfare State to Welfare State: World War I, Compensatory State Building, and the Limits of the Modern Order* (University Park: Pennsylvania State University Press, 2000), 309.

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misinformation, Outline empowers readers to verify the facts.

What Comes after the U.S.-China Phase One Trade Deal?

ALAN TONELSON

What should the United States do next about the trade and broader economic challenge posed by China? This question, which was raised in January as soon as the two governments signed a deal tantalizingly called "phase one," has seemed especially difficult to answer since President Trump declared on July 14 that he wasn't interested in proceeding with phase two negotiations. Indeed, political and economic uncertainties regarding China abound. What will the United States do next about China if Democratic nominee Joe Biden wins the presidency? Alternatively, what will President Trump do if he's reelected? And what will the president do between now and the election?

Biden skeptics are wondering how the former vice president could contain the bipartisan hostility toward China that has surged in Washington and around the country in recent years—if he even wants to. In the meantime, Biden's existing China record is dominated by the standard pre-2016 hope of transforming the People's Republic into a "responsible stakeholder" in the world community.

Trump skeptics, meanwhile, are asking whether the president is so invested in preserving the trade deal—especially China's promises to boost agricultural imports from politically important states—that he will overlook major Chinese violations. Many also suspect that former national security adviser John Bolton, author of a recent kiss-and-tell book, is right in warning that the president could drop the tough-on-China stance altogether as soon as he's reelected. Political speculations aside, however, the results of phase one are sending a loud and clear message: Washington should stay the course.

The Success of Phase One

America simply doesn't need to enter phase two of a China deal, as phase one has been skillfully negotiated and heavily favors the United States. In fact, seeking a follow-on deal is likely to distract American policymakers from pursuing the essential goals that phase one has put well within reach: revitalizing America's domestic industry and minimizing the influence of an increasingly hostile China on America's own security, prosperity, and political system. This strategy, however, should also be supported by maintaining the tariffs that have been imposed on hundreds of billions of dollars of Chinese exports to the United States. Phase one allows nearly all of these levies to remain in place—a clear-cut victory for the United States.

Analyses of the phase one deal have focused on two of its main features. The first entails pledges made by China to boost, within two years, its imports from the United States in numerous categories of goods and services by some $200 billion over their 2017 levels. The second entails various commitments from Beijing to end or reduce a wide variety of predatory trade practices, like deliberate currency undervaluation (which artificially makes goods from China more price-competitive in markets all over the world), intellectual property theft, forced technology transfer from U.S. companies in exchange for access to China's market, and various supposed health and safety regulations that American exporters claim are mainly designed to keep their products from being sold to Chinese customers.

The import pledges are especially important because they represent a long overdue departure from the kinds of purist maxims that have decisively and regrettably shaped American trade policy. The Trump administration has concluded, at least in this respect, that boosting American sales to a systematically restricted national economy must not depend on extracting promises to end or reduce individual trade barriers. Such impediments are eminently fungible, and the bureaucracies that create and maintain them are too opaque to permit effective monitoring and enforcement. Instead, the approach developed by U.S. Trade Representative Robert E. Lighthizer seeks measurable results. This strategy, often called "managed trade," simply requires the Chinese to hit targets for purchases that are easily tracked by payments into exporters' coffers.

Moreover, contrary to claims that the promised increases are dominated by politically important agricultural products, these goods make up only 16 percent ($32 billion) of the $200 billion—and of that $32 billion, only $12.5 billion must be bought by the end of this election year. The remaining two-year quotas are made up of manufactures ($77.7 billion in total), energy goods ($52.4 billion), and services ($37.9 billion).

China's promises of greater market opening and other improved economic behaviors are much less specific—a supposed weakness in the accord that has drawn the ire of critics. After all, they have argued, in previous years these transgressions are what harmed so many American workers and businesses trying to compete with Chinese firms—in the United States, in

China, and in third-country markets. Moreover, they correctly observe, the combination of subsidies, intellectual property theft, technology transfer pressures, and discriminatory government procurement practices known as Made in China 2025 are precisely the measures that have so alarmed the Trump administration. Those measures have helped China close the remaining technology and military power gaps with the United States, and threaten to further augment China's strength and wealth at America's expense. Without ironclad phrasing (and therefore presumably airtight enforcement), the critics continue, these treaty provisions are worthless because of China's poor record of complying with any such agreements.

The critics are right about the importance of combating these Chinese practices. Their dissatisfaction with the treaty's wording, however, misses the point and overlooks the seminal importance of the dispute resolution system created by phase one. If used boldly and shrewdly, the mechanism to which China agreed creates all the leverage Washington needs to bring China to heel. The agreement accomplished this aim because, unlike any of its predecessors, the Trump team acted as if economic reality mattered—recognizing that the United States still holds the important economic cards in its dealings with China.

As with most U.S. trade agreements, phase one's dispute resolution section lays out detailed procedures for addressing complaints that either signatory can lodge against the other. And as with most U.S. trade agreements, these procedures include various time frames for requesting and receiving information, holding consultations, reporting progress, and the like.

The game-changing difference between phase one's dispute resolution system and that of its predecessors lies in what happens if, after all the proper procedures are followed, one of the signatories is still dissatisfied. In the two most important U.S. trade deals of recent decades, the North American Free Trade Agreement (nafta) and the terms of U.S. entry into the World Trade Organization (WTO), the decisive provisions created procedures that eventually disadvantaged the United States. In the case of nafta, the main problem was the preservation of an arrangement dating from the 1987 bilateral trade deal between Canada and the United States that gave each of the signatories of the new agreement (now including Mexico) the same legal authority to defend industry subsidies, even though the U.S. economy represented some 82.5 percent of the new free trade area at its inception. (That arrangement had been an especially high priority for Canada, a robust commodity subsidizer.) Since access to the U.S. market was the paramount nafta prize, both Mexico and Canada pressed for keeping this "Chapter 19" system, to ensure that America's market would remain more open to their exports than vice versa. (The Trump administration's United States-Mexico-Canada Agreement left the Chapter 19 procedures in place, in exchange for Canadian and Mexican concessions on other dispute-resolution issues such as labor and environmental protections and tariffs imposed for national security purposes.)

The WTO system featured an even greater disparity between legal authority and American power. Despite being the world's largest single national economy by far and long serving as the world's leading import sponge, the United States in WTO proceedings and disputes has no greater voice or vote than any of the 163 other members of the organization, no matter how Lilliputian their economies. And because unfettered access to the U.S.

market was a main growth engine for so many WTO members, the latest available figures show that the United States has lost more than half the WTO cases it has been involved in over the years—although it still runs nearly half of the globe's total trade deficits even after transforming into an oil exporter. Just as important, the WTO has conspicuously failed to rein in foreign predatory trade practices that keep other markets closed to U.S. products—notably in China.

The odds of phase one improving on this sorry record seemed slim throughout the negotiations. China insisted that any enforcement provisions treat the two countries as legal equals—thereby ensuring its ability to brush off any complaints filed by the United States. And the Trump administration repeatedly expressed agreement.

Yet Lighthizer evidently realized that he had the biggest ace up his sleeve all along—the supreme importance of exports (and thus trade surpluses with the United States) to China's development, and China's comparatively lower importance—despite all the decades of hype—to the United States. Precisely because of superior American leverage, Trump's trade envoy secured Beijing's agreement to an enforcement mechanism that provided China with de jure equality. But de facto the agreement gave Washington the last word.

Phase one doesn't enable a defendant (as China, the more closed and protectionist of the signatories, is likely to be) to use a veto to escape any consequences for treaty violations. And it doesn't authorize China to respond with tit-for-tat, politically adroit tariffs (as with its recent levies on soybeans) if the United States—the likely plaintiff—loses patience and imposes its own unilateral trade curbs.

As phase one's text specifies, a "Party Complained Against [for an alleged treaty violation] may not adopt a counter-response, or otherwise challenge such action. If the Party Complained Against considers that the action of the Complaining Party was taken in bad faith, the remedy is to withdraw from this Agreement by providing written notice of withdrawal to the Complaining Party." Although both the United States and China enjoy an equal right to walk out, such a threat would have little credibility due to China's dependence on maintaining access to as many American customers as possible. Even if China walked out, however, the damage to the United States would be manageable compared to the hefty price that China would have to pay. This argument is borne out by the data from the period before phase one, when the "trade war" was at its most intense.

In fact, phase one offers Washington a golden opportunity to wield this threat offensively—that is, to boost the odds of holding Beijing to its wide-ranging promises of better trade and commercial behavior. For example, if the United States decides that the Chinese aren't acting quickly enough to improve intellectual property protection or to halt technology extortion, or that they continue to impede U.S. agricultural exports with disingenuous safety regulations, the United States can retaliate however it wishes—including with punitive tariffs on Chinese goods. China's only legal recourse, leaving the agreement completely, would risk provoking even higher tariffs on many more products. Of course, this all-or-nothing provision permits the United States to use tariffs defensively as well. Suppose China decides to hike subsidies in order to increase certain exports to the United States, or simply to price the American competition out of its own market. The United States can retaliate with targeted tariffs or the trade equivalent of carpet-bombing, and all the Chinese legally can do in turn is abandon the entire treaty and risk the kind of full-blown trade war they've been desperate to avoid. It's true that the Chinese could ignore the treaty's terms and try their own targeted tariff approach. But that would risk the United States waving goodbye and the treaty falling apart as well.

Nor do phase one's benefits for U.S.-based businesses and their employees stop with the all-or-nothing provisions, for the agreement also gives potential plaintiffs a guarantee of anonymity. One major reason for the long-time ineffectiveness of pre-Trump efforts to safeguard U.S. interests threatened by China was U.S. companies' fear of Chinese retaliation against their operations in the People's Republic. Phase one permits Washington to keep the names of any companies seeking action against China confidential.

Why Phase Two Is Unnecessary

Precisely because China needs the United States much more than the United States needs China—and because phase one capitalizes on this imbalance of economic power so ingeniously—there is absolutely no need for Washington to seek a phase two. Yes, additional talks could in theory further clarify Chinese obligations and even speed up certain compliance-related timetables. But even efforts to "nail down" treaty terms and develop foolproof terminology (whatever that means) are not worth the candle. They miss the enforcement point entirely—as they always have.

After all, enforcement problems with China have never had anything to do with inadequate language. They've had to do with the logistical impossibility of monitoring treaty compliance because of the vast size and tight secrecy of China's bureaucracy—which of course includes many enormous state-owned entities. Think of it this way: how many American bureaucrats would we need to monitor the countless Chinese government agencies, state banks, and other entities to make sure that Chinese officials have rewritten their regulations correctly, that these instructions are being followed, and that no winks and nods to subordinates are tolerated? No one can count that high.

Phase one eliminates all of these problems, and effectively makes the United States judge, jury, and court of appeals on Chinese compliance. The insuperable conventional enforcement challenge should also teach a broader China policy lesson: so-called gold-standard texts are unlikely to meaningfully change Chinese behavior. Even the most expertly crafted treaty cannot guarantee adequate enforcement. So phase one should be seen not as a means of eliminating Chinese economic abuses, but as a way of reducing the number of victims of these policies, especially among American manufacturers, service providers, farmers, and their employees. As a result, phase one helps advance the administration's goal of reducing America's reliance on China, for both economic and security reasons.

New Pressures on China

The question still remains why China agreed to such an unequal treaty. The answer is clear upon comparing its economic performance with that of America since the trade war began in 2018. Up until the coronavirus struck the U.S. economy, the United States was winning the conflict going away. As critics of the Trump tariffs noted, the U.S. economy did go through a soft patch in the spring and early summer of 2019. But after overall inflation-adjusted U.S. economic growth slowed from a robust 2.9 percent (annualized) in the first quarter of 2019 to 1.5 percent in the second, it bounced back to 2.6 percent in the third quarter and 2.4 percent in the fourth quarter. The pandemic first began depressing economic performance in March 2020, but throughout that month, the Atlanta Federal Reserve's GDPNow was estimating first quarter 2020 growth back at over 3 percent. Inflation-adjusted output growth in U.S. manufacturing—the economy's most trade-affected sector—began slowing (year over year) somewhat earlier—in the fall of 2018, shortly after the first China-specific Trump tariffs came into effect in early July, and much more sweeping planned tariffs were threatened. Yearly real manufacturing growth slowed further and even briefly turned negative till the pandemic took effect. But more than the trade war was at work.

In March 2019, airlines across the country and around the world began grounding Boeing's popular 737 MAX jetliner, and slowing or halting orders altogether. The company's safety woes kept mounting and finally peaked in December, when Boeing announced that production on the model would be suspended completely beginning in January. The drying up of work throughout Boeing's vast domestic supply chain clearly weighed on overall American manufacturing production independent of the trade war, but even so, signs of resuming overall manufacturing expansion appeared as early as November 2019. Indeed, in February the Federal Reserve (which tracks manufacturing output) announced that without Boeing's troubles, manufacturing production for January would have increased by a decidedly healthy 0.30 percent month over month.

Also dragging on 2019 manufacturing output was a strike at General Motors that lasted nearly six weeks and hindered production not only in vehicles and parts but for all the manufactured metals, plastics, rubber, chemicals, and electronic components from which they are made.

Similar patterns were evident in manufacturing employment. From 2018 (the year when Trump's China and metals tariffs both began) till 2019, annual industrial job growth slowed from 264,000 (the best such total since 1997's 304,000) to 59,000 (the worst such total since 2016's 6,000 loss, but a gain nonetheless). Moreover, the 2019 figures were somewhat depressed by the GM strike. (Aerospace employment excluding the parts, components, and materials for aircraft, aircraft engines, and aerospace-specific parts and components held up reasonably well during this period.)

In addition, U.S. domestic manufacturing added 147,000 jobs during the sixteen months after Trump's first batch of China tariffs came into effect. That's less than half the 319,000 added during the sixteen months before, but hardly the catastrophe some predicted.

Particularly intriguing signs of the trade war victory have come from the monthly manufacturing surveys conducted by various regional branches of the Federal Reserve system. These reports present so-called soft data—manufacturers' subjective views on whether their circumstances and performances are improving or worsening—rather than changes in actual output, employment, new orders, and the like. Such reports are taken seriously because they're more timely than the federal government's hard data releases, and tend to anticipate such hard data fairly well. These findings mainly indicated significant upticks in activity in early 2020 following the humdrum 2019. Since the phase one trade deal didn't even entail a reduction of the vast majority of the U.S. tariffs placed on Chinese products, these surveys added to the evidence that U.S.-based industry was weathering the trade war just fine.

As for the consumer and business inflation widely expected from tariffs, nothing of the kind materialized. The trade war pessimists simply assumed that importers could pass all of these price increases on to consumers. What they completely overlooked was business's inability to recover their onetime pricing power because so many consumers have remained shell-shocked by the last financial crisis and its ruinous aftermath. Over the longer term, moreover, productivity improvements can enable industries to absorb whatever cost increases result from using more expensive U.S.-made materials, parts, and components and maintain profitability via greater efficiency.

On the other hand, the evidence suggests that China suffered much more damaging effects. Even though the numbers published by Beijing have usually overstated the nation's economic performance, recently they painted a picture of major deterioration.

When the Trump tariffs began, in July 2018, China's quarterly annualized economic growth rate was 6.7 percent. By the end of 2019, it had sunk to 6.0 percent. The full-year 2019 gross domestic product increase of 6.1 percent was the lowest such figure since 1990. In the middle of last year, moreover, Chinese industrial output—which includes production from utilities and mines as well as trade-sensitive manufacturing—hit a seventeen-year low.

Even more worrisome, the quality of China's growth was worsening, too. As the rate of economic expansion slowed in 2018, the share of that growth fueled by debt of all kinds kept mounting; China's total debt level is now nearly 3.2 times the size of its total economic output. The trade war seems to have played a major role in the country's increasing addiction to debt, as the increase in debt seen in 2019 followed two years in which Beijing sought to bring leverage under control. Ever more of this debt is being incurred by nonfinancial entities, like those in the trade-heavy manufacturing sector, further suggesting that the trade war deepened the country's reliance on debt.

Chinese employment data are notoriously unreliable, if only because of the difficulty of accurately measuring employment among the country's huge population of migrant workers, who staff factories as well as other kinds of firms. But in mid-2019, two studies, including one from one of China's state-run banks, conservatively pegged trade-war-related manufacturing job losses in the range of 780,000 to 1.9 million. Such losses would represent less than 1 percent of China's official payroll count, but they would be concentrated in a sector viewed by Beijing as crucial to its growth and modernization ambitions. These employment losses no doubt reflected growing trade-war-related pressures on Chinese commercial entities. Indeed, in 2019, Chinese industrial profits posted their first annual loss in four years. And almost certainly as a result of such slowing economic growth and weakening national finances, bad loans at China's overwhelmingly state-owned banks surged by more than 20 percent that year—after hitting a ten-year high the previous year.

Enforcing Phase One

Phase one's negotiation hardly means that Washington can rest on its laurels. Real success will depend on aggressive implementation—not simply monitoring and reporting Chinese violations of the agreement, but resolving to call Beijing's bluff and to pull the retaliatory tariff trigger when necessary. U.S. officials will certainly be kept busy by the ongoing need to prevent Chinese investment (which is all state-controlled to varying extents) from distorting America's still largely free market economic systems and financial markets. Clamping down on technology transfers and increasing American defense-related corporate investment will also take time. We will also have to continue pressuring our allies (formal and informal, like Taiwan) not to feed the Chinese beast with vital capital and know-how.

Someday, if this approach produces significantly and measurably better Chinese practices over a sufficient period of time, Washington could engage in a set of negotiations that might be called phase two—aiming at further economic renormalization. But not a moment sooner.

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Will Shifting Party Coalitions Change Policy Priorities?

MARSHALL AUERBACK

America's two major political parties appear to be in the process of swapping their historic coalition constituents. With that shift, many of our assumptions about what it means to be a Democrat or a Republican are coming apart at the seams. The most significant development seen in recent polling data is the exodus of college-educated whites from the GOP. This trend predates Donald Trump, but his presidency has notably accelerated it.

A recent *New York Times* op-ed by columnist Thomas B. Edsall, "We Aren't Seeing White Support for Trump for What It Is," expands on the changing American political landscape. Citing a paper published earlier this year by Herbert Kitschelt and Philipp Rehm, "Secular Partisan Realignment in the United States: The Socioeconomic Reconfiguration of White Partisan Support since the New Deal Era," Edsall argues that the Trump presidency is both a reflection of and a catalyst for a major reconfiguration of the U.S. electorate. Kitschelt and Rehm's key point is that "low-income white voters without college degrees on the Democratic Party side, high-income white voters with degrees on the Republican side—have switched places."

But *partisan realignment* is not yet fully reflected in the parties' respective *policy priorities*. The ultimate question is whether such realignments will go beyond a mere shift of electoral constituencies from one party to another:

that is, will the movement of the political tectonic plates result in a more profound reconfiguration of American policy?

Today it is hard to imagine corporate elites' control over both parties diminishing in any meaningful way. But it is worth recalling that the Great Depression did temporarily incapacitate the country's "economic royalists," thereby enabling FDR to fundamentally alter the American economic landscape and create a new governing coalition in the process. That coalition is now in shambles, as Democrats have increasingly come to rely on big money from new power centers, which has in turn shifted their policy priorities.

Another economic crisis could temporarily dislodge these Wall Street and Silicon Valley power elites from their position of political primacy, but the Democrats would also need a president dedicated to making this happen. Barack Obama had an opportunity in 2009, but basically decided that he was happy with the status quo ante and therefore directed policy to reviving it, rather than destroying it. Ironically for those on the left, the post–New Deal safety net and automatic stabilizers, by mitigating the pain of economic calamity, can serve to limit the revolt from below and any corresponding inclination to embrace a more radical form of FDR-style progressivism.

As Wall Street and Silicon Valley elites have largely seized control of the Democratic Party's policymaking apparatus, the party's historic constituencies, especially organized labor, are increasingly disenfranchised. They have, in turn, become more receptive to Trump's message on trade, immigration, and nationalism. So far the evidence suggests that a new blue-collar conservatism is making inroads into parts of the Republican Party, but it is unclear whether this trend will supersede the power and influence of the GOP's historic corporate constituencies, notably oil, mining (especially coal mining), pharma, tobacco, chemical companies, and agribusiness.

On the other hand, if trade policy is ultimately subordinated to national security concerns, it is conceivable that one of the parties could embrace an industrial policy which gives primacy to the homegrown strategic industries necessary to maintain U.S. military supremacy. Given its strong ties to the defense establishment, that would seem to be a more likely scenario for the GOP, which under Trump is making steady inroads into the Democratic Party's traditional blue-collar constituencies.

Although a military-industrial strategy might run counter to some of the interests of the party's traditional corporate backers (such as the Koch family), it is the kind of *political* strategy that could conceivably override their interests. The country's disaffected blue-collar workers, who are historically Democrats, have had their livelihoods decimated by decades of trade liberalization and other neoliberal policies. As Michael Lind has argued, Hamiltonian national industrial policy married to a "Cold War 2.0"—an updated version of the kind of "military Keynesianism" deployed by Ronald Reagan in the mid-1980s—could conceivably consolidate the GOP's efforts to become a party of the working class.

As the elites move around the political shuffleboard, both Democrats and Republicans are too busy managing their respective internal splits to exploit the broader changes or to build up a new, stable governing coalition. But if recent trends continue, pressures to realign policy priorities with the parties' shifting constituencies will intensify—as will corruption and disarray if they refuse to do so.

The Investment Theory of Party Politics

The migration of educated whites to the Democrats is both a reflection and a cause of the change in the Democratic Party's donor base composition. As Thomas Ferguson, Paul Jorgensen, and Jie Chen outline in a paper published by the Institute for New Economic Thinking, "Within the Democratic Party, the desires of party leaders who continue to depend on big money from Wall Street, Silicon Valley, health insurers, and other power centers collide head on with the needs of average Americans these leaders claim to defend." Thus the Democratic Party, a historically center-left political grouping, has increasingly embraced a neoliberal market fundamentalist framework over the past forty years. The Democrats have thereby facilitated the growth of *financialization* (the process by which the financial sector comes to dominate the overall economy), which itself further increases political dependence on Wall Street.

This trajectory is best explained by Ferguson's "investment theory of party competition," outlined in his earlier work *Golden Rule*. That theory is a variation on the old capitalist golden rule: namely, he who has the gold, rules. In his book, Ferguson uses raw data from the Federal Elections Commission (FEC) and the Internal Revenue Service (IRS) to illustrate that it is not the average voter who forms the lifeblood of American political parties, but rather powerful, moneyed blocs of business elites with vested economic interests. Citing Ross Perot, Ferguson argues that these groups aggregate their considerable financial resources "to pole vault over the whole rotting structure of party politics in America." They "invest" in the election of candidates prepared to ensure a legislative outcome that is consistent with their economic self-interest, which helps to explain why policy is often substantially at variance with the majority preferences of the American voting public.

The investment theory of party competition largely explains why, for example, in the wake of the worst financial crisis since the 1930s, the U.S. government delivered a series of relatively bank-friendly financial "reforms" (e.g., Dodd-Frank). These reforms largely restored the status quo ante instead of bringing about significant structural changes like those that occurred in the aftermath of the Great Depression (e.g., Glass-Steagall). By way of political donations, corporate interests have seized control of both party apparatuses, thereby making it extremely difficult to fund a credible political campaign without slavishly catering to the wealthiest sliver of American society.

Ferguson's investment theory transcends Tip O'Neill's simplistic dictum that money is the mother's milk of politics. Rather, it points to the direct correlation between money and votes received, and the extent to which these "investments" now go well beyond the phalanxes of plutocrats and backroom political organizations. Money, largely organized via uncontrolled dark pools (thanks to the *Citizens United* Supreme Court decision), now thoroughly governs congressional voting patterns as well as presidential races. Even when politicians are able to self-fund (like Donald Trump) or mobilize significant small individual donations (like Bernie Sanders), these outliers still have to compete against a wall of moneyed interests that dominate the party duopoly.

It was the Republicans under the House leadership of Newt Gingrich who first restructured their national political committees and turned Congress into a giant ATM. Ferguson expanded on this history in an interview with the Roosevelt Institute:

> [Gingrich] installed what amounted to a pay-to-play system internally, which forced individual representatives to compete to hold their positions on key committees and leadership posts by raising funds for the party.
>
> Positions on key committees, leadership posts—they were all being sold. . . .
>
> The Democrats looked at the Republicans' pay-to-play system and basically decided to copy it. They did this instead of mobilizing their old mass constituencies. Today . . . both parties are essentially posting prices for influential committee slots and leadership posts.

The problem for the Democrats historically was that their mass constituencies, notably the working and middle classes, could not contribute the requisite funding to keep up with the Republicans. With organized labor increasingly under assault, and inequality growing as social welfare programs came under attack, Democrats found that mobilizing their older mass constituencies was less effective than simply emulating the fundraising practices of the Republicans. Eventually, these constituencies were marginalized as policies and internal party rules became more tailored to attract funding from the "investment classes."

As Ferguson explains, Democrats centralized power in the leadership, which was given wide discretion in how it treated bills, as well as more leverage over individual members. Money created the leverage:

> Under the new rules for the 2008 election cycle, the DCCC [Democratic Congressional Campaign Committee] asked rank and file members to contribute $125,000 in dues and to raise an additional $75,000 for the party. Subcommittee chairpersons must contribute $150,000 in dues and raise an additional $100,000. Members who sit on the most powerful committees . . . must contribute $200,000 and raise an additional $250,000. Subcommittee chairs on power committees and committee chairs of non-power committees must contribute $250,000 and raise $250,000. The five chairs of the power committees must contribute $500,000 and raise an additional $1 million. House Majority Leader Steny Hoyer, Majority Whip James Clyburn, and Democratic Caucus Chair Rahm Emmanuel must contribute $800,000 and raise $2.5 million. The four Democrats who serve as part of the extended leadership must contribute $450,000 and raise $500,000, and the nine Chief Deputy Whips must contribute $300,000 and raise $500,000. House Speaker Nancy Pelosi must contribute a staggering $800,000 and raise an additional $25 million.

Former Goldman Sachs cochairman Robert Rubin played an important role in the Democrats' embrace of this Gingrich pay-to-play model, and the corresponding fundraising success he achieved cemented Wall Street's dominance of the party. The resulting change created a feedback loop, which is part of the phenomenon described by Kitschelt and Rehm: more educated, affluent voters migrated to the Democrats (along with their checkbooks) as the party embraced policies that largely reflected their interests. These voters, in turn, reinforced the Democrats' embrace of the same neoliberal, pro–Wall Street policies from the time of Bill Clinton onward through to Barack Obama.

Wall Street–friendly policies were taken up in earnest by both Democratic presidents after Reagan. For example, the biggest battles in the banks' long fight to keep derivatives from being regulated took place during the Clinton administration. Likewise, in contrast to FDR, President Obama displayed a marked reluctance to punish the large banks after the 2008 financial crisis. The continued hold of Wall Street on the party precluded a more aggressive regulatory response, as Simon Johnson and James Kwak illustrate in their book *13 Bankers*.

What about Trump and the Republicans? Kitschelt and Rehm note that, as a candidate if not as a president, Trump's message ostensibly represented a break from his party's traditional corporate interests. Trump sought to exploit the alienation of the Democrats' traditional mass constituencies. Not only did he proclaim his love for "the poorly educated," but he also campaigned as an old Rust Belt Democrat. Opposed to illegal immigration and offshoring, Trump attacked globalization, free trade, Wall Street, and especially Goldman Sachs. In addition, Kitschelt and Rehm observe that Trump made a "repeated campaign promise to protect Medicare and Social Security [that] put him on the side of core adherents of the welfare state." That is one of the major factors that rapidly increased the migration of white working-class support from the Democrats to the GOP under Trump in 2016. As Kitschelt and Rehm explained to Edsall, "'this perception would have removed cognitive dissonance and inhibitions' that would have prevented them from supporting an economic conservative in the mold of Mitt Romney."

As president, to be sure, Trump has not done anything to sustain or expand the core of the American welfare state, but rather the opposite: he has undermined Obamacare, along with introducing stronger workfare requirements for social welfare programs. But others in the GOP, notably Senators Marco Rubio and Josh Hawley, are trying to move the party in a more pro-worker direction, championing a new kind of blue-collar conservatism that is supportive of unions and policies that emphasize the "dignity of work." In a recent piece for *First Things*, for example, Rubio cites Catholic social thought in support of labor unions. These blue-collar Republicans, however, are still constrained by their party's historic corporate interests, such as the libertarian Koch family and others whose funding priorities have historically been hostile to unionization, minimum wages, increased voting rights, and which favor the privatization of popular entitlement programs such as Social Security.

On the other hand, a number of Republicans are geopolitical hawks first and economic libertarians second. They increasingly see that it is nonsensical to make war on wage-earners while claiming to protect the same wage-earners from Chinese competition, especially as Beijing becomes the locus of an emerging Cold War 2.0. Geopolitical competition, and even war, has historically encouraged national mobilization, consistent with broader public patriotism. As counter-intuitive as it may seem, a lack of geopolitical rivalry is bad for social democracy, because the rich can become antisocial monsters with no fear of punishment. On the other hand, the activities of Big Tech, in particular, are now attracting greater scrutiny as geopolitical concerns about China have increased. As venture capitalist Peter Thiel has recently argued, it is perverse for Google to refuse to do business with the Pentagon while conducting artificial-intelligence work in China, which uses AI to sustain its own authoritarian government and mass surveillance system.

Furthermore, after Trump's primary victory in 2016, a growing number of Republicans now know that most of their conventional pre-Trump program was (and is) unpopular. Although many risk primary challenges financed by corporate interests if they deviate too far from the old party line, "blue-collar conservatism" is nonetheless gaining increasing policy traction in certain circles, even if its advocates still have a long way to go before they can fully shift the GOP agenda toward a kind of "Bull Moose" progressivism.

Education is Primarily a Function of Class

Discussions focused on the migration of educated white voters from the GOP to the Democrats in many cases overlook the fact that education is now more of a class marker than anything else. As our Wharton-educated president illustrates on an almost daily basis, an elite education doesn't always correlate with IQ, despite Trump's assertions to the contrary. We know that, in many instances, dumb upper-class kids are more likely to get diplomas than smart working-class kids. Degrees from elite U.S. universities have become more or less hereditary, analogous to old European titles of nobility, with most of them going to the children of the affluent, regardless of race. Meanwhile, reductions in funding for public education mean that state university systems have suffered significantly. Public K–12 education has been hammered in virtually all major cities and, increasingly, even in suburbs. The collapse of state support closes off college to many low-income students. And let's not forget the impact of wealthy donors purchasing admission, which helps to perpetuate this self-selecting oligarchy.

Knowing which party has the most college graduates—Republicans in the past, Democrats now—is therefore important mainly insofar as it reveals changes in voting constituencies' class composition and (to use Ferguson's terminology) their corresponding investment preferences. The disenfranchised and marginalized increasingly get the policy crumbs, if they get anything at all. For predicting the parties' policy positions, these factors are ultimately more decisive than race per se.

What does this mean for the future of America's two major parties? The Republicans under Trump have become more downscale, economically populist, and socially conservative as historically Democratic working-class constituencies have been shaken loose and turned to the GOP. Ironically, as Caleb Orr notes in the *Boston Review*, "the right may yet break with neoliberalism more than the left will." In other words, the Right may be less inclined than the Left to think that all public problems should be viewed through the lens of Wall Street–dominated neoliberalism—especially if national security considerations begin to supersede the assumed benefits of free trade and unconstrained globalization.

At the same time, if the migration of certain "educated" elites to the Democrats continues, we should expect the party to continue its drift toward neoliberal/libertarian policies on trade, immigration, and the limiting of government intervention in markets. It will increasingly become the party of "fiscal responsibility." If that sounds implausible, recall that both Bill and Hillary Clinton trumpeted Bill's three consecutive years of budget surpluses as one of his major presidential achievements. Similarly, Barack Obama spoke about "reforming" (i.e., cutting) entitlement programs literally days before he was inaugurated in 2009—even though the country was then facing its gravest economic crisis since the Great Depression.

It is unlikely that the election of a progressive will change this trajectory in the longer term, barring a major economic crisis that temporarily dislodges the elites from their positions of power. Assuming a continuation of current trends, the Democrats will likely become even more upscale, economically conservative, and socially liberal, moving yet further away from their New Deal base.

The Inversion of the New Deal Coalition

For much of the postwar era until the 1980s, the Democrats were an economically liberal party with socially conservative and socially liberal wings (the social liberals, in fact, were in the minority). By contrast, today's Democrats are a socially liberal party with an economically conservative wing (neoliberals) and a residual progressive economic wing. There are no Fritz Hollings or Wright Patman types left in the party.

Twenty-first-century Democrats do, however, largely agree on "woke" social issues. Thus they are loath to compromise on "open borders," transgender bathrooms, making room for pro-life members, or gay married couples' wedding cakes—because those are the only issues that hold their economic right and left flanks together.

It is worth noting that today's white upper-middle-class Democrats (including Hillary Clinton and Elizabeth Warren, both former Republicans) may style themselves progressives, but in many respects, they simply reflect the values of the upscale, socially liberal Republicans of the 1960s or early '70s. In general, the themes of today's Democratic Party—racial justice (which was historically more liberal Republican than New Deal Democrat), feminism, environmentalism, and abortion—are Nelson Rockefeller and John Lindsay Republican themes. Recall that Lyndon Johnson's Civil Rights Act would not have been passed without the assistance of key socially liberal Republicans, as many of his fellow Democrats were unreconstructed racists and segregationists. The latter ultimately migrated to the GOP after the implementation of the Civil Rights Act, much as many of the old northern urban Republicans were eventually hounded out of their party, denigrated as "Republicans in name only."

It is true that Bernie Sanders does not fall easily into this silo of "Rockefeller Republicanism"—although, in the Senate, Sanders is an Independent who caucuses with the Democrats. He also makes no bones about wanting to destroy the existing party structure (as opposed to, say, Elizabeth Warren). Nevertheless, even if Sanders were somehow to win the White House, he would still find his agenda frustrated by the corporate wing of the party, which has largely internalized a neoliberal agenda for decades.

The progressive policy space in the Democratic Party is also likely to be further circumscribed as more affluent suburban households and former "Never Trump" Republicans gravitate to the party because of their revulsion at the president. In general, these groups neither like paying higher taxes, nor are they particularly attracted to the idea of a more expansive state role in the economy. Absent another major economic calamity, it is hard to envision progressive policy ideas gaining significant traction, even if the Democrats win the 2020 presidential election.

Whither Left and Right?

In truth, what is at stake here transcends both electoral constituencies and, indeed, conventional party politics. Definitions of Right and Left are being contested, and the affluent voters migrating to the Democrats do not just want their policies implemented but also want to claim the mantle of Left or progressive for fairly pro-wealthy, neoliberal policies as a means of legitimizing them. When Clinton captured these voters, he did it under the “centrist” or “third way” Democrat label. Today, however, given the unpopularity of Clintonite neoliberalism, many Democrats find it more politically expedient to justify neoliberal policies under a “progressive” label.

Nowhere is the topsy-turvy quality of this partisan realignment more apparent (or more fully realized) than on immigration and trade issues, where the two parties have largely swapped positions. Under Trump, the GOP has publicly embraced a restrictionist immigration agenda. Beyond the question of “building the wall,” Republicans now eschew any talk of immigration amnesties (a prominent feature of the Reagan presidency and a policy advocated by George W. Bush as well). By contrast, the Democrats have largely abandoned the principles set forth by the U.S. Commission on Immigration Reform—also known as the Jordan Commission, after its chair, Barbara Jordan, a prominent Democrat and civil rights leader who served in Congress for many years. The committee, established by Clinton, advocated for the “enforcement of immigration limits” and called for an “immigration policy [to] protect U.S. workers against unfair competition from foreign workers, with an appropriately higher level of protection for the most vulnerable in our society.” By contrast, the current focus of Democrats is on decriminalizing illegal entry and extending public benefits to undocumented immigrants, which may well incentivize additional illegal immigration.

To some degree, this change in the Democratic position on immigration in the last quarter century may reflect the increasing hispanization of the party. Furthermore, support for immigration control has become associated with Trump and, increasingly among Democrats, with intolerance and bigotry. This is especially true among white liberals.

More fundamentally, this policy shift reflects the preferences of the Democrats’ Silicon Valley donor base, which insists that any reduction of illegal immigration must be accompanied by a commensurate expansion of guest worker visas (such as the H-1B program). These visas effectively function like indentured servant programs, because admitted workers are bound to their employers as a condition of their employment, compelled to return home after a fixed period of time, and do not get residency credit for those years, which might allow them to get green cards and, eventually, citizenship. Silicon Valley employers use these visas to replace high-paying American jobs with cheap foreign labor. They also function as a quasi-subsidy, as they allow the companies to avoid retraining their own domestic workforce.

By contrast, the GOP base has become profoundly hostile to further immigration liberalization. As Ramesh Ponnuru put it:

> Most in the party already agree on the need to tighten the asylum rules to deter purely economic migrants. There is also a consensus that additional or augmented physical barriers are needed on parts of the southern border even if a “big, beautiful wall” isn’t. Mandatory verification of the legal status of new hires is still a divisive issue among Republican lawmakers—but it’s hard to imagine a credible enforcement regime without it. According to some estimates, as many as two-thirds of recent illegal immigrants came here legally but overstayed their visas. No amount of “border security” would affect their numbers; an employment-verification regime would.

Likewise, on trade, the GOP is increasingly following President Trump’s protectionist rhetoric and policy, while the Democrats (who historically have been far more skeptical of initiatives such as nafta or the Trans-Pacific Partnership) are increasingly becoming the party of free trade. Again, this is unsurprising: the party’s base is now mostly composed of well-educated voters who are largely centered in the major bicoastal metropolitan areas and who are most integrated into global markets. By contrast, the Democrats’ traditional labor base, which opposed a series of trade agreements in the 1990s, including nafta and China’s WTO accession, has largely seen its aspirations and preferences ignored (leading to its increasing migration toward the GOP).

The irony is that the Democrats now have trade and open borders policies which are closer to those of the old Reagan and Bush Republicans (and libertarians such as the Koch family), while the GOP under Trump is gravitating toward the old positions of the afl-cio on both trade and immigration.

The policy reversals by both parties on trade and immigration illustrate that these issues don't easily break down into traditional "Left" and "Right" silos. This is true even of redistribution programs, typically associated with "woke" and "progressive" Democrats. As Caleb Orr notes in the *Boston Review*, "large-scale transfer programs that ensure purchasing power parity across incomes are entirely consistent with neoliberal market institutions." This is because redistributive policies help to perpetuate the prevailing neoliberal ideology (and the policies that flow from it). Redistribution to the losers of today's globalized capitalism offers a palliative for the consequences of such policies, and therefore reduces the threat of their elimination. That is why, for example, so many Silicon Valley oligarchs (now important Democratic Party backers, who are socially liberal, but economically conservative) support a universal basic income, even if it is marketed as a "freedom dividend." This policy mirrors the prevailing ideological preferences of today's Democrats, who pay heed to the less fortunate via cash transfers from winners to losers with increased public provision. At the same time, they display an increasing reluctance to address the deregulated labor, goods, and capital markets that are hallmarks of their party's neoliberal policies, and which created the vulnerabilities in the first place.

So where do the marginalized progressives or increasingly disenfranchised working-class voters turn? In the United States, third parties with new ideas inevitably get swallowed up by the existing duopoly. We are therefore unlikely to see the creation of a new third party, as has occurred in other countries (e.g., France, Italy, or the UK) when confronted with similar political shifts. But which, if any, of the two existing parties will swallow the non-corporate interests and begin to reflect popular policy preferences?

The Democrats of the New Deal era were a working-class party. But we have already experienced an economic crash, and the Obama administration ultimately worked toward the restoration of the status quo ante, resuscitating the Clinton coalition rather than restoring the old New Deal coalition. On the Republican side, Donald Trump's faux-populist frontal assault on the American establishment has, in many respects, been a "bait and switch" that has not come close to eroding the influence of the moneyed Republican establishment.

But trade issues, especially concerning China, are increasingly linked to national security issues. The GOP may ultimately decide to build on Trump's attempts to bring key supply chains back to the United States in order to ensure that strategic industries remain on home shores, even if this conflicts with the principles of free trade and non-interventionist government. Sustaining production on U.S. soil would be favorable to blue-collar workers (hitherto among the biggest casualties of globalization) and likely consolidate the GOP's efforts to become the party of the American working class.

Absent a larger policy realignment, however, the American political system will remain mired in a miasma of dysfunction and increasing corruption. Americans have long prided themselves on their exceptionalism, particularly in regard to the country's reluctance to embrace the more extreme political ideologies that were adopted in much of Europe and Asia during the last century. That historically happy state of affairs could well change in the future, however, if current trends persist.

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