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What Is China's Grand Strategy?

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KEY TAKEAWAYS

Today, the U.S. and Chinese economies are of roughly equal size, but China is growing twice as fast.

The rise of the Chinese economy is the most momentous event in economic history since the Industrial Revolution, and China intends to propagate this model globally.

China's notion of what it means to be the world's superpower is different from ours—and begs examination.

I am grateful to The Heritage Foundation for this opportunity to speak about China's challenge to the United States. To be invited to give the Russell Kirk Lecture is an honor; to be invited back is humbling. I would like to address two questions: What does China want? And what should the United States do about it?

President Trump summed up China's intentions in a May 19 interview on Fox News with Steve Hilton, who said, "A lot of people say that China wants to replace the U.S. as the superpower." The president responded, "It's not going to happen with me." Hilton asked, "Do you believe that that's their intention?" Trump replied: "Yes, I do. Why wouldn't it be? They're very ambitious people. They're very smart. They're great people. It's a great culture."[1] China's notion of what it means to be the world's superpower is different from ours, though, and begs examination.

An Ideological and Economic Competitor

Earlier this month, Dr. Kiron Skinner, head of Policy Planning at the State Department, had this to say: "In China, we have an economic competitor, we have an ideological competitor, one that really does seek a kind of global reach that many of us didn't expect a couple of decades ago, and I think it's also striking that it's the first time that we will have a great power competitor that is not Caucasian."[2] As Victor Davis Hanson observed, Japan was, in fact, a great power competitor, and a formidable one, from its crushing defeat of Russia in 1905 to the end of the Second World War.

To put the present situation in context: Japan's GDP [Gross Domestic Product] in 1940 was one-fifth of America's and its population only half. China's GDP is roughly the same as ours (25 percent larger than ours in purchasing power parity, according to the International Monetary Fund, or 30 percent smaller in nominal terms at the present exchange rate). Its population is more than four times [that of the U.S.]. China's investment in frontier technologies exceeds America's by a wide margin. It also graduates four times as many STEM [science, technology, engineering, and mathematics] Bachelor's degrees and twice as many doctorates—and the skills gap is widening. One-third of [China's] new labor market entrants have bachelor's degrees, and one-third of those are in engineering.

Today, the two economies are of roughly equal size, but China is growing twice as fast. President Trump has said repeatedly that our economy is doing well while China's economy is doing badly. He is misinformed. The perception that China is weak is widespread in Washington, and evidently contributed to the recent breakdown in trade negotiations. That is a strategic miscalculation that may have baleful consequences. China fears nothing but America's technological edge, and that edge is eroding at an alarming pace.

National Principles and Imperial Designs

Dr. Skinner is broadly correct: We have never engaged a strategic rival with resources and skills on this scale. Today's situation is radically different in another respect. In America and China we observe the confrontation of the national and the imperial principle in their purest form. America is history's most successful nation-state. Its premise is the sanctity of the individual, the heritage of the English Protestants who in the 17th century envisioned a biblical republic. When I last had the privilege of addressing you three years ago, I spoke about our unifying political culture and its

ever-present theme of the individual's pilgrimage toward redemption. Our sense of the sacred in every citizen has proven a stronger and more enduring bond than the ethnocentric nationalisms of the Old World.

China is the oldest and—despite intermittent breakdowns—the most successful empire in history, subjecting the interest of the individual to the imperatives of the state. Unlike America, China never assimilated the scores of ethnicities who comprise its enormous population. Instead, it orders them into an imperial system ruled by a centralized elite and communicates by a system of imperial ideograms rather than a common tongue. It maintains a ruthless meritocracy that filters talent by standardized examinations. It has always viewed its people as raw material for imperial power and, within living memory, has sacrificed frightful numbers of them. The imperial order is perpetually at risk of fracture, and the succession of dynasties is interrupted by episodes of internecine war and unimaginable suffering. But the imperial system perpetually restores itself because the Chinese have had no alternative to warlords and anarchy. Most Chinese will tell you, "We need an emperor. Otherwise we'd kill each other."

Chinese Fears. Two threats haunt the nightmares of every Chinese dynasty: the rebel province supported by foreign intervention that occasions the overthrow of the dynasty and the fracture of the empire. That is why China will go to war over minor objectives in the South China Sea. It follows the proverb, "Kill the chicken to scare the monkey." China is saying that if it will fight for atolls, *a fortiori*, it will fight for Taiwan. The Communist Party of China has established an imperial dynasty in which a committee of Mandarins rules in place of an imperial family. It surely ranks among China's most successful dynasties. Between 1979 and 2018, China's GDP per capita rose nearly 50-fold in current U.S. dollars. None of its predecessors had so strong a claim for the Mandate of Heaven. As the Sinologist Francesco Sisci observes, this is a golden age for the Chinese, the first time in China's 5,000 year history where none need fear death by famine or war.

Imperial Models. China's imperial model differs fundamentally from that of Japan during the first half of the 20th century. Japan strove for ethnic homogeneity. China is ethnically diverse and inclusive. That is a strength as well as a potential weakness. The clearest embodiment of Chinese imperial strategy is the entity that is now at the epicenter of Sino-American tension, namely Huawei Technologies. As an investment banker employed by a Chinese firm, I had occasion to observe Huawei's operations first-hand and work with its senior executives. Huawei is not a Chinese company, but rather an imperial one. Fifty thousand of its 188,000 employees are Western,

and most of these are engaged in research and development. Huawei drove out competitors and hired their best engineers. It has attracted many of the world's best researchers by funding R&D [research and development] institutes in 20 countries. It spends almost twice as much on R&D as the combined spending of its two closest competitors, Nokia and Ericsson.

What Does China Want?

What does this dynasty want? It surely does not want to replace the United States as the world's superpower on President Trump's watch. It has neither the capacity nor competence to wage a global war on terrorism, to protect sea lanes, to manage Russia's ambitions in Europe and the Middle East, and exercise the responsibilities of a superpower. It is happy to gestate a new Sinocentric economic order under the shelter of American power. Chinese planners speak privately of 2035 as the breakout year, when China will be so powerful that no one will be able to contain it.

The Communist dynasty wants to restore China to the dominant position it held in the world economy during most of recorded history. In 1700, China produced one-third of the world's economic output, while the U.K., France, and Germany together comprised less than 15 percent. China views the 19th and 20th centuries as a passing aberration. The corrupt and feckless Qing Dynasty permitted a century of humiliation, from the First Opium War of 1848 to the Communist Revolution of 1949. China's leaders are determined to avoid the errors of the past and to make China the world's hegemonic power. There are economic and military components of this strategy.

Economic Strategy. China's economic strategy has two prongs. The first is technological supremacy. The second is the export of the Chinese model to countries [in the Global South] inhabited by two billion people and their absorption into a Chinese economic empire. This is embodied in the Belt and Road Initiative, which proposes nothing less than the thorough-going economic transformation of the Global South. China devotes vast state resources to critical technologies, including, for example, fifth-generation broadband and its applications, quantum computing, quantum communications, Artificial Intelligence, and gene sequencing.

China understands that silicon is to the military power of the 21st century what steel was to the 19th century. The State Council, in 2014, called for China to achieve world leadership in semiconductors by 2030 and projected $118 billion of investments during the next five years.[3] Whatever plans China had before the present technology war became obsolete in April 2018, when the United States suspended exports of handset chips to [Chinese

telecommunications company] ZTE, it put virtually unlimited resources at the disposal of its semiconductor industry, including Huawei. China's progress has been shockingly effective. Huawei's chip designs now rival those of Qualcomm, Nvidia, and Intel. China's sprint up the learning curve in chip design and manufacture has been the biggest economic surprise of the past year. We should make no mistake: The semiconductor industry is the king on the chessboard.

Military Strategy. China's military strategy centers on area denial and deterrence. Its surface-to-ship missiles can force American aircraft carriers to deploy far from its coast, vitiating America's superiority in military aircraft.[4] It has the capacity to blind or destroy American satellites with lasers and missiles. It has developed hypervelocity missiles against which no defense presently exists, and which can target American carriers as well as the American mainland. It has a large number of diesel electric submarines that can lurk silently on battery power. It has acquired Russia's S-400 air defense system, with the range to sweep the skies over Taiwan.

It has some less-publicized capabilities. Several years ago, I visited the CEO of a Chinese tech firm that my colleagues at Reorient Group had taken public. He showed me an app on his phone with a map of the South China Sea with thousands of little dots. "This tracks every ship in the South China Sea and shows speed, direction, and condition of motor," he explained. The data came from high-altitude observation balloons tethered to civilian vessels. If every military satellite were destroyed in the first minutes of a war, China would still have uninterrupted coverage of its borders.

What the People's Liberation Army (PLA) does not do also is revealing. The PLA has nearly 1 million soldiers, but for the most part they are poorly equipped and trained. The PLA spends about $1,500 to equip an infantryman, less than one-tenth of what we spend. It owns no ground attack aircraft like the A-10 or the Russian SU-25. Unlike the United States, its capacity to put boots on the ground outside its borders is very limited. That is not surprising. China reached its present frontiers under the Tang Dynasty 1,300 years ago. It is not preparing to march on its neighbors.

To be sure, China has 30,000 Marines and an additional 50,000 amphibiously trained mechanized infantry and the ability to lift them across the Taiwan Strait.[5] China's blue-water navy has more ships than America's, although with vastly inferior tonnage, including only two aircraft carriers to America's 11. During the next decade, though, it will add several carriers and a new generation of nuclear-powered submarines as well as three destroyers a year and a new class of amphibious assault ships. Its objective is not to engage the superior American fleet in conventional naval battles,

but to secure its growing overseas assets and to achieve supremacy in its coastal waters.

Technological Transformation of the Global South

China's military investment supports its growing economic reach overseas. American observers mistakenly believe that China is playing a sort of global Monopoly game, securing ports and other logistical nodes to control trade routes. China's overseas strategy has many facets, including securing supplies of energy and other raw materials, but its central objective is to transform the economies of the Global South on the Chinese model.

China wants to "Sino-form" countries with a combined population of two billion, from Southeast Asia to Eastern Europe, and extending to Latin America. China understands the disruptive power of mobile broadband and its ability to transform the daily life of billions of people now immured in backwardness and isolation, and to link them to a global marketplace configured by Chinese technology, Chinese industrial organization, and Chinese finance. The rise of the Chinese economy is the most momentous event in economic history since the Industrial Revolution of 1815 to 1850, and China intends to propagate this model globally.

The prospective transformation is breathtaking. So-called developing countries in general don't develop. Most people work a subsistence plot with poor implements, or they sit all day in a market stall waiting for someone to come along and buy a liter of cooking oil. They don't pay taxes, which means that the government has no money to spend on infrastructure or services. Informal employment in the Global South ranges from 54 percent in Mexico to 85 percent in India. What globalization has accomplished under Western auspices is a pale shadow of what a Sino-centric world proposes to do. This is hardly a bad thing *per se*. But I do not wish to see China emerge as the dominant superpower as a result.

That is the essence of the Belt and Road Initiative. Huawei is both the spearhead of Chinese overseas expansion, as well as an organizational model for the character of that expansion. The Chinese economic model is the extreme version of the Asian model that began with Japan's restoration of the Emperor Meiji in 1868 and was replicated by South Korea and Taiwan: Move subsistence farmers to the cities and build factories for them to work in. While its per capita GDP rose 35 times, China moved 550 million people from the countryside to the cities. It built the equivalent of all of the cities of Europe to house them and connected them with 80,000 miles of superhighway and 18,000 miles of high-speed trains.

Modernization in China isn't the enclave of a small middle-class, as in India, but a movement that reaches into the capillaries of society. Entrepreneurs in Chinese villages connect to the world market through mobile broadband, sell their products and buy supplies on the Alibaba platform, and obtain credit from microfinancing platforms. Information and capital flow down to the roots of the economy and products flow back up to the world market.

Economic Ties and Technology Transfer

China's economic relationship to the United States has changed profoundly during the past decade. China depended on the American consumer between 1979 and 2009, when exports reached 36 percent of its GDP. The world financial crisis convinced China that the American consumer would diminish as a driver of world demand, and China shifted aggressively to domestic sources of demand and alternative export markets, as in the Belt and Road Initiative. Exports today comprise only 18 percent of China's GDP, and exports to the U.S. comprise just 5 percent of China's manufacturing output. Most of its exports to the U.S., moreover, are in low-value–added industries; about half involve assembly of consumer electronics from imported components. During the past decade, China has sought to shift these industries to low-wage countries like Vietnam. High tariffs on Chinese goods would only compel China to do faster and with more friction what it has wanted to do for years. A sudden reduction of U.S. imports from China would require China to find alternative employment for millions of semi-skilled workers: a management headache, but hardly an existential threat.

There is a popular current of thinking in the United States that has been predicting the collapse of China for the past two decades. It hasn't happened—and it won't. We have chronically underestimated China, the way that Russia underestimated the Japanese in 1904, and the U.S. and British underestimated the Japanese before Pearl Harbor and Singapore.

Another school of thought held that economic liberalization inevitably would lead to political change. Both these notions amount to whistling in the dark. We can't change it from the outside, and it won't oblige us by collapsing of its own weight. China's debt-to-GDP ratio is the same as ours, about 250 percent of GDP. The difference is that the Chinese government owes most of that debt to *itself* as a result of infrastructure investment.

Steve Bannon remarked recently that big American corporations are unregistered Chinese agents, and that Wall Street is China's investor relations department.[6] That is exaggerated, but to a disturbing extent, it

is true. It's an ill wind that blows nobody good. Chinese imports replaced American industrial jobs, but they helped lift the valuation of U.S. information technology companies by $13 trillion during the past decade. Cheap Asian electronics supported the valuations of the American software giants. American corporations eschewed capital-intensive hardware, invested in apps, and enriched Silicon Valley. We remonstrate with the Chinese about forced technology transfers, but we have more to fear from voluntary transfers. Most American corporations can't wait to transfer technology to the Chinese in return for privileged access to the Chinese market.

Industrial Policy Leaps

To paraphrase Leon Trotsky, you may not be interested in industrial policy, but industrial policy is interested in you. The Asian model treats capital-intensive industry as infrastructure. It supports chip foundries with public funds the way we subsidize sports arenas. The Asian model begins with Japan's Meiji Restoration in 1868. China, Japan, South Korea, and Taiwan subsidize capital-intensive industry, with the result that virtually all of the high-tech products invented in America are now manufactured in Asia. All the technologies of the digital age—integrated circuits, sensors, displays, lasers, and the Internet itself—were invented in America and funded by NASA, the Defense Advanced Research Projects Agency, and other government agencies. Liquid crystal displays, light-emitting diodes, semiconductor lasers, and solid-state sensors are produced almost exclusively in Asia. America has stopped investing in capital-intensive, high-tech production. There is virtually no venture capital invested in manufacturing. The result is disastrous. America's share of semiconductor manufacturing fell from 25 percent in 2011 to less than 10 percent in 2018. A country that cannot produce its own integrated circuits cannot defend itself in the era of smart weapons.

China is outspending the U.S. in quantum computing, including $11 billion to build a single research facility in Hefei. By contrast, the U.S. government has allocated $1.2 billion for quantum computing over the next five years.

China remains behind the U.S. in most key areas of technology, but it is catching up fast. In the last several years, China has:

- Landed a probe on the far side of moon;
- Developed successful quantum communication via satellite;

- Built a 2000 km quantum communication network between Beijing and Shanghai; and

- Built some of the world's fastest supercomputers.

China's investment in education parallels its investment in high-tech industry. Today, China graduates four times as many STEM Bachelor's degrees as the U.S. and twice as many doctoral degrees, and China continues to gain. One-third of Chinese students major in engineering, versus only 7 percent in the U.S. (and many of those are Chinese foreign students). Eighty percent of U.S. doctoral candidates in computer science and electrical engineering are foreign students, of whom Chinese are the largest contingent. Most return to China. The result is that the best U.S. universities have trained an excellent faculty for Chinese universities. American STEM graduate programs reported a sharp fall in foreign applications starting in 2017, partly because Chinese students no longer need to come to the U.S. for a world-class education.

Chinese Technological Advances

We have less to fear today from Chinese adoption of existing U.S. technology than from Chinese invention of new technologies. For the first time since Sputnik, a foreign rival has leapfrogged the United States in a game-changing technology, in this case, 5G broadband. China spends perhaps an order of magnitude more than we do on quantum computing, perhaps the single most important new technology of the present century. We have responded too late to this challenge. The United States cajoled and threatened its allies to exclude Huawei from the rollout of 5G broadband—and received a humiliating rebuff. Now we have stopped exports of U.S. components to Huawei, which is likely to have unintended consequences.

When the U.S. banned chip exports to Huawei's smaller competitor, ZTE, early in 2018, Huawei undertook a crash program for self-sufficiency in high-end chips and achieved its goal in December. Now a Japanese study reports that Huawei's handset chips are equal to or better than Apple's.[7] By contrast, other components are easy to source elsewhere or to reverse engineer. Global Times editor Hu Xijin wrote on May 20, "The U.S. cutting off Huawei supplies completely woke up Chinese society. China will face difficulties in [the] short term. We will devote to independent R&D and abandon any illusion. But it is also a real turning point of the U.S. semiconductor companies gradually losing Chinese market."[8] We may have accelerated China's plan to dominate the semiconductor industry.

American analysts tend to deprecate China's capacity to innovate. I am reminded of the siege of Baghdad in 1258, when the Abbasid Caliph believed that his thick stone walls would protect him from lightly armed Mongol horsemen. But the Mongols brought with them 1,000 Chinese siege engineers who broke the walls in three weeks, after which the Mongols annihilated the city. As I mentioned, Huawei has 50,000 foreign employees.

Debt Traps and Productivity Deficits

China now proposes to export its model to Southeast Asia, Central Asia, Latin America, and parts of the Middle East and Africa. China's Belt and Road Initiative has a $1 trillion war chest for infrastructure investments and export loans. China is accused of setting a debt trap for fragile economies, to make them dependent on Beijing and force them to sell strategic assets, as in the case of Sri Lanka's Hambantota Port. That aspect of China's strategy is exaggerated by Western analysts. Only 10 percent of Sri Lanka's foreign debt is owed to China. China is not simply seeking assets abroad. It wants to harness the labor of billions of people.

Chinese planners are thinking a generation ahead. The scarcest resource in the world is labor, specifically workers who can read an instruction manual, learn skilled or semi-skilled jobs, and show up for work on time. Virtually all of the world's population growth during the 21st century will take place in sub-Saharan Africa and the Indian subcontinent—this last mostly in Pakistan, where the average female has four children compared with 2.2 in India.

Aging Populations. The problem is that the productive parts of the world are all aging together. There are plenty of young people in the world, but low educational levels, abysmal infrastructure, and political instability sideline the regions where population growth is most rapid. The people of aging countries with shrinking populations cannot find enough young people to absorb the investments they need to make to fund their prospective retirements. China's own labor force stopped growing a couple of years ago. In 2018, kindergarten admissions in China fell by 740,000, the first decline on record, and the birth rate fell to 11 per 1,000 people in 2018 from 13 per 1,000 people in 2016.

Global South. China's offer to the Global South is persuasive. As an investment banker, I brought Mexico's Ambassador to Huawei's headquarters in Shenzhen for a tour of the company's exhibition hall, which is several times the size of our Air and Space Museum. After three hours of viewing Huawei technology, the Mexicans and I sat on a semicircular bench in a

small amphitheater, and a young Chinese man stepped to the podium and turned on a projector. "You Mexicans have a big economy," he said, "but very low broadband penetration." He showed some charts and graphs to this effect. "Your economy is backward today, but you can become a great and rich economy, just like China. Let us build a national broadband network for you," he urged. "Then we will bring in e-commerce and e-finance and create a whole new ecosystem that will make you a modern economy." He sounded vaguely like the Borg: We will assimilate you. Resistance is futile. Nothing came of that meeting, but in 2018, Huawei and Nokia began to build a national broadband system in Mexico, and the price of broadband has fallen drastically. Huawei is also building a broadband network in Brazil.

The good news is that the prospects are good for a quantum jump in productivity in the developing world. The bad news is that China is positioning itself to reap the harvest of productivity. China wants to be the dominant equipment supplier, investor, and technology provider in this revolution. By contrast, the United States has drifted toward the export profile of Brazil, with strength in agriculture and energy but overall weakness in high-technology manufacturing and exports.

Europe. In Europe, China's most enthusiastic collaborators are the nationalist governments of Italy, Poland, Hungary, and the Czech Republic, who seek Chinese leverage against the European Community in Brussels. Italy's populist government was the first in the G7 to sign onto China's Belt and Road Initiative. Poland's most important national project is a new airport east of Warsaw to serve as a hub for airfreight to China, linked to a new rail line to China. It is the fate of small countries to orbit large ones, and the growth of Chinese economic power has drawn some of America's closest friends into its gravitational field.

Political Realities

Ten years ago, the United States could have shut down the export-dependent Chinese economy with tariff barriers, but not today. Five years ago, the United States could have crippled Huawei by depriving it of components, but not today. The loss of Google's Android software will hurt Huawei's sales in Europe, but it will not cripple a company that shipped 30 million handsets in China alone during the first quarter of 2019. Restrictions on component sales to Huawei will not impede its rollout of 5G in Europe, as the leaders of Germany, France, and the Netherlands stated last week. Huawei can produce its own high-end chips, and finding or making substitutes for other American-sourced components is easy by comparison.

Without offering better technology, we cannot hold China back. We may not even be able to delay it. America is in the uncharacteristic position of attempting to use our influence to prevent a rival from doing something better than we do. That is a strategy which never has succeeded at any time in recorded history.

We should look back instead to our victory over the Soviet Union in the Cold War, a victory that confounded the conventional wisdom of the late 1970s that saw America in decline. We devoted 1.3 percent of our GDP—the equivalent of $260 billion in today's dollars—to basic research. Federal development funding in the U.S. has fallen from 0.78 percent of GDP in 1988 to 0.39 percent in 2016. Federal R&D has fallen to half of the Cold War level in terms of GDP—and a great deal of that is consumed by climate research and other distractions.

Recommendations

The United States should take these steps:

- Force key high tech industries onshore using defense subsidies and tax breaks. A nation that can't produce its own semiconductors can't be a global power.

- Place export controls on high tech. Our problem isn't just forced technology transfer. Our companies are lining up to give their technology to China.

- Change Department of Defense budget priorities to emphasize war-winning advance technologies rather than legacy systems.

- Pass a new National Defense Education Act.

- Create an alternative to the Belt and Road Initiative in cooperation with Japan, South Korea, India, and others.

- Engineer a brain drain of China's most talented scientific cadre. We cannot change China's political system by condemning the Communist Party for its reprehensible practices, but we can deprive it of the talents of some of its most creative minds.

China can innovate, but we can innovate better. The American alliance of defense-driven research and private entrepreneurship created the

digital age, something no other country could have accomplished. We can astonish the world again, but we shall have to summon all of our national resources to do so.

Conclusion

These are the longer-term solutions. What can happen in the short run? We can escalate the present trade and technology war with China, with considerable collateral damage to the world economy. We have no guarantee of victory in such a confrontation. China has been preparing for such a contingency for the past 10 years. All-out trade war probably would damage the President's position in the 2020 election. Alternatively, we can agree to an armistice in what promises to be a very long war and return to the policies that ensured our victory in the past. We have underestimated the Chinese. Let them discover that they have underestimated us.

David P. Goldman is a columnist at the *Asia Times* and author of several books, including *How Civilizations Die* (Regnery Publishing, 2011). This address was delivered at The Heritage Foundation in Washington, D.C., as part of the Russell Kirk Lecture series.

Q&A

Question: I started to read, but I didn't finish yet, the Nicholas Lardy book *The State Strikes Back*, where he predicts that the government is taking a bigger and bigger share in Chinese economy, which is going to be as you already denied, another debunked theory of Chinese slowdown. What do you think of this book? Thank you.

David Goldman: The great Chinese slowdown has been predicted for 20 years, and it hasn't come. If you look at the details of what China is doing, China, for example, installs more robots than the United States and Europe combined. It's still increasing the productivity of its population by moving very large numbers of people from countryside to city. It is rapidly modernizing its industrial production.

The biggest problem China has, in terms of growth, is that it has a generation of people who came from the country to the city 20 years ago when they were young. They are now in their 40s, they've been working in semi-school jobs, and there is really no place for them to go. They are parked in state-owned industries, which are unproductive and often require subsidies. And that's a drag on Chinese productivity. So it will take a while for Chinese reforms to redeploy those people to other jobs. Services have been growing

at the expense of manufacturing. There are entire new cities in the center of China that American tourists [have] never heard of with 20 million people that are the center of China's rapid economic growth. So I don't believe that there is any inherent obstacle to Chinese economic growth. I think they are management problems and China will comfortably be able to maintain five to six percent economic growth for another decade, which means its economy roughly doubles over that period.

Question: [Inaudible.]

David Goldman: Well, there's always a political risk that the so-called Chinese left-wing will arrest China's development, but I think it's extremely unlikely because the Chinese Communist Party has as a principle objective staying in power. It will stay in power if it can continue to meet the aspirations of its citizens, and it won't do that by going back to methods which nearly destroyed it during the Great Leap Forward and the Cultural Revolution. So, I'm not privy to the deliberations of the politburo but I think that's a very unlikely outcome.

Question: [Inaudible.]

David Goldman: Steve Bryen, who used to run the Export Controls Office at the Pentagon, has written about this [and], I think, made a great deal of sense that there are a lot of technologies we simply don't want to let them have. K.T. [Kathleen Troia] McFarland, the other day, pointed out that during the Cold War, we wouldn't even let the Russians buy [a] Xerox machine. They were still using mimeographs when communism fell, so there are a lot of technologies that we simply don't want to let the Chinese have. Silicon Valley can say what it wants, but there are a lot of things you are not going to get from the Europeans. There are things we can stop them from getting, for example, machines for chip design you can buy from the United States.

But you can also buy them from Siemens in Germany, and I very much doubt that the Germans could be cajoled or threatened into cutting off exports from China. Siemens has been enjoying ventures with Huawei since 2004, 15 years, so that's not going to happen, but we can certainly slow them down. But the most important thing is to do *better* than they do. Produce better products. It's a very poor strategy to try to stop someone else from doing something that they do better than you. You can throw your weight around, but your weight will never be enough to stop them. We need to unleash American innovation and drive their products out of the market by producing better ones.

Question: [Inaudible.]

David Goldman: Well, everybody imitates everybody else. The Bessemer process in steel was invented by Sir Charles Bessemer, not by Andrew Carnegie. The lightbulb was invented by a British physicist, not by Thomas

Edison. Industrial espionage is vastly overrated. Somebody gets into a plane with a briefcase full of blueprints and flies to Beijing, [and] people can look at the blueprints. That's not really the issue. If you set up a factory, you've got a bunch of engineers who learn to do the process, then you hire them away, and they can do it for somebody else. You learn by creating the team that does the entire process.

That's how technology really is transferred, which means you don't want to let American companies do certain kinds of things at all. For example, I wouldn't let Boeing produce aircraft in China. That would be an example of something I'd stop. I am much more concerned, though, about new technology. I'll give you an example: semiconductor manufacturing. The latest Taiwan semiconductor manufacturing chip fabrication plan will cost $20 billion. That's an astonishing sum for a single factory. That might be the most expensive factory in history. Don't quote me on that, but it's certainly way up there. These are enormous presses. There's research at MIT [Massachusetts Institute of Technology] that uses an application of quantum mechanisms to grow circuits as opposed to squishing the material down into them, which costs a tiny fraction of what that does. It would wipe out several hundred billion dollars of investment.

When we have the level of R&D that we had during the Reagan years, we don't know exactly what we're going to get out of it. For example, the process for chip manufacturing, which became standard, complementary metal-oxide-semiconductor chip manufacturing, was invented, well, theoretically by Fairchild, but RCA labs perfected it, because someone at Pentagon decided they wanted fighter pilots to do weather forecasting in the cockpit, and they needed a lighter, faster chip. So the RCA guys came up with this process which became the standard for chip manufacturing in 1976. By 1978, it was used for look-down radar and F-15s, and by 1982, the Israelis demonstrated at the Beqaa Valley Turkey Shoot that this and other avionic advances could wipe out the Russian advantage and surface-to-air missiles. That was the first death knell of communism.

So, I don't know exactly which technologies are going to succeed. I know certain things we absolutely must develop, like quantum computing, but the most important thing is to recreate the network of corporate laboratories, defense agencies that fund basic research, national laboratories, universities, which we had in the 1980s and which made us the wonder of the world.

Question: You talk about what we should do, but when I look at what happened, I look at Bell Labs, for instance, Nokia, the reminisce of Belcor, the research arm of the Baby Bells, Erickson, semi-tech: I guess still exists, but I don't know what was our reaction to the semi-conductor issue in the 80s. I mean, even our influence with economic development in third-world

countries, like The Organization of the Petroleum Exporting Countries and the United States Agency for International Development, it doesn't seem like it's enough. Why did we allow ourselves to get into this situation in the first place?

David Goldman: Well, I think the answer is the Clinton peace dividend. After the fall of communism, we were so strong that we couldn't imagine that we would ever need to do anything militarily again. We would just sit there. So the whole federal research and development effort was built down vastly. That was under [President Bill] Clinton. We also, as Walter McDougall of University of Pennsylvania recently wrote in a superb essay for Law & Liberty,[9] we also saw that NATO should be like a social welfare organization as opposed to a military organization that everybody should join, kind of like the United Nations Educational, Scientific and Cultural Organization (UNESCO). You know, UNESCO with blue uniforms or something, and that was disastrous.

And then we had the Bush Administration, of which I've been a very severe critic since the beginning. President Trump estimates that we spent $7 trillion chasing the fandom of nation-building around the world. I don't know if that's the right number, but it *was* trillions. And at the same time, we vastly neglected basic R&D. We just couldn't do both at the same time. We made a terribly poor choice, and we got nothing but a lot of heartache and humiliation for our investment in nation-building. We built no nations. And meanwhile, we neglected our basic industry inter-technologies. Corporations who no longer had the relationship with the federal government, which subsidized their basic R&D, moved out of it.

The other thing that happened is the Chinese pushed us out of it. The Asians have always subsidized capital-intensive industry. That's the Asian model. The Japanese did it in 1900. It's not new. The difference is China is 1.4 billion people. They are gigantic. The gravitational pull of that Chinese subsidy chased all American money out of hardware [and] into software. Out of capital-intensive into so-called capital-light investments. Now how do you deal with that? Well we can go to the Chinese and say, "Change your economic system or we'll tax furniture" or whatever. I'm exaggerating slightly. I don't believe we can force the Chinese to change their system. That's been the Asian system since 1868. They don't know any other way to run a business. So we've got to do some things on our own, and that will in some cases require subsidies. The way we give subsidies to defense companies. I hate subsidies. They lead to corruption, they leave inefficiencies, they're the wrong way to do things, but in a national security situation, sometimes you do things in a suboptimal way. Having the Marines close, engage, and

destroy is not exactly an economic value-added proposition either, but you do it for national security reasons.

Question: Could you speak to the currency and the strategy that the Chinese have?

David Goldman: Yes, absolutely. The Chinese would like to see the Renminbi (RMB) become a global reserve currency and challenge the dollar. They are very cautious about moving in that direction. They have created RMB payment networks, which roughly doubled their volume in the last couple of years. That's very useful for countries subject to sanctions, like Russia, Iran, Turkey, and so forth. So they basically run the equivalent of a little money laundering operation and RMB on the side, benefiting from the difficulties that sanctioned countries have using the dollar-based payment system.

Do you want to keep your checking account in a Chinese bank and RMB? Well, obviously not, and neither does General Motors, neither does Siemens, neither does Mitsubishi. Until such a time that China develops a capital market, which is free and open and efficient, you can't have a reserve currency, because people don't want to keep their reserves in your currency. They don't want to hold their balances there. But over the next 10 to 15 years, the Chinese certainly want to move in that direction. One of the areas of market opening that they're most eager to do is the financial sector. J.P. Morgan, Goldman Sachs, Blackrock: All of these companies can't wait to get into China. I mean this is the savings of a billion-and-a-half people, vastly profitable business. The Chinese want Western expertise in managing a banking and asset-management system to help them advance toward this goal. So it is a significant threat to the United States over the long term.

I think many accounts of Chinese intentions to make the RMB into a reserve currency have been alarmist, because it's much more difficult than a matter of signing a few laws. You have to gain the confidence of the world. In terms of the RMB's present value, it's definitely in China's interests not to let it fluctuate too much. They don't want to depreciate it aggressively, because they want confidence in their capital markets. They've depreciated it a bit, which helps take some of the edge off the tariffs, but I don't think they will allow it to depreciate seriously if they can possibly avoid it, since they've got a little over $2 trillion in reserves. They've got quite a war chest. I don't think the RMB in the short term is going to be very volatile.

Question: I'm personally very interested in the rise of China and the effects it's had on its own people investing in real estate in the United States and the effects that has had on my generation. And I'd like to know your opinion on the matter of Chinese citizens investing in residential real estate around the world.

David Goldman: Well, during the great housing bubble of 1998 to 2008, the United States ran a current account deficit each year of about $600 billion; it was enormous. And the whole world was flushed with savings. The Chinese were enormous savers—and many others, not just the Chinese. I was at that point the head of debt research for the Bank of America, and we sold vast amounts of mortgage-backed securities to the Chinese and thought this was safe with houses. This helped create a bubble in housing in the United States, supported [by] some very bad credit decisions; in order to create these bonds that we could sell to the Chinese, we dragooned every drunk off the street we could and put a mortgage in front of them and got them to sign it. I mean we lowered credit standards; we did outrageous things as bankers. It's one of the reasons I left the industry. So that created a housing bubble, which pushed your generation out of the housing market. It pushed housing out of reach, so it had a terrible consequence for you.

That is a bit different than the personal investments of Chinese in real estate around the world. As my old boss at Reorient Group, John Kho, once told me, every generation of Chinese for the past thousand years has been expropriated, so we all want to keep some money outside of China. And real estate is viewed as a safe investment. Those flows have diminished a great deal partly because the Chinese have been effective in putting capital controls on, and I think the effect is much diminished since the 1980s.

Question: I was curious because I've seen a bunch of blowback from other Asian countries, like Japan, with China's gaining power and trying to become a hegemony. My question is, what role do you think that those counties will play in helping either hinder, postpone, or prevent the potential hegemony that China can get in the next coming decades?

David Goldman: I think the Japanese are keeping their powder very dry; they are being very cautious. For example, let's say hypothetically we had a war where the United States' interdicted energy suppliers to China. They could do that, but since every barrel of oil that goes in the Persian Gulf goes through the South Asian Sea, not a barrel of oil would reach Japan either. The last thing Japan wants is a conflict between the U.S. and China, because collateral damage would be catastrophic.

The Japanese and Chinese don't like each other. Japanese certainly are prepared to develop nuclear weapons very quickly if they have to, they are investing in their own defense. But at the same time the Chinese market is hugely important to them, and I think they are opportunistically lying back waiting to see who wins and what kind of deal they have to make. If the United States is strong and assertive, I think the Japanese will certainly be on our side.

Japan has more foreign assets than China. Japan certainly could be the major funder of an alternative to the Chinese Belt and Road Initiative along with South Korea, which is extremely active in foreign investments in South East Asia. To some extent, India, though India is more challenged because it really has its own internal development problems to deal with before it expands overseas. So I certainly think there would be potential if we had a clear policy to ensure American hegemony, but since our policy has been very uncertain, everybody is gaming us. I think that's the simple way to put it.

Question: What do you make of the Committee on Foreign Investment in the United States review process as it currently stands? Is it effective? Do you expect that it will be effective in the future? And is it the kind of direction you'd like to see the United States go in terms of trying to put some control over what products end up in Chinese hands?

David Goldman: I think the Committee on Foreign Investment in the U.S. has been better under [President] Trump than it certainly was under [President] Obama. It has improved a great deal. I'm less concerned about Chinese investment in the U.S. than I am about U.S. export of technology to China. But these are obviously similar things. I'm for an extremely tough policy. I would try to deny China access to key technology either by investing in the U.S. or by American companies operating in China. But that will only work if we're simultaneously investing in better technologies on our own. So it's a matter of offense and defense. Defense at best delays your enemy. You win by offense.

Endnotes

1. "Interview: Steve Hilton Interviews Donald Trump on Fox News' The Next Revolution," May 19, 2019, https://www.youtube.com/watch?v=H9ys30khGM8 (accessed September 24, 2019).
2. Tara Francis Chan, "State Department Official on China Threat: For First Time U.S. Has 'Great Power Competitor That Is Not Caucasian,'" *Newsweek*, May 2, 2019, https://www.newsweek.com/china-threat-state-department-race-caucasian-1413202 (accessed September 24, 2019).
3. James Andrew Lewis, "China's Pursuit of Semiconductor Independence," Center for Strategic and International Studies, February 27, 2019, https://www.csis.org/analysis/chinas-pursuit-semiconductor-independence (accessed September 24, 2019).
4. David Lague and Benjamin Kang Lim, "The China Challenge: Rocket Man," Reuters, April 25, 2019, https://www.reuters.com/investigates/special-report/china-army-rockets/#article-rocket-man (accessed Septebmer 24, 2019).
5. Grant Newsham, "Can the PLA Get Across the Taiwan Strait?" *Asia Times*, May 12, 2019, https://www.asiatimes.com/2019/05/article/can-the-pla-get-across-the-taiwan-strait/ (accessee September 24, 2019).
6. Yen Nee Lee, "Steve Bannon and Kyle Bass Accuse Wall Street of 'Funding' China's Fight With the U.S.," CNBC, April 26, 2019, https://www.cnbc.com/2019/04/26/steve-bannon-kyle-bass-say-wall-street-is-funding-china-fight-with-us.html (accessed September 25, 2019).
7. Shuhei Yamada, "Huawei Closes Technology Gap with Apple on Chip Design," *Nikkei Asian Review*, April 24, 2019, https://asia.nikkei.com/Business/China-tech/Huawei-closes-technology-gap-with-Apple-on-chip-design (accessed September 24, 2019).
8. Xijin Hu, Twitter, May 20, 2019, https://twitter.com/HuXijin_GT/status/1130496486574157824 (accessed September 25, 2019).
9. Walter A. McDougall, "McDougall Responds on NATO," *Law & Liberty*, April 30, 2019, https://www.lawliberty.org/liberty-forum/mcdougall-responds-on-nato/ (accessed Sepember 25, 2019).