

A FOUR-PART MODEL FOR LONG-TERM U.S./WESTERN REVITALIZATION

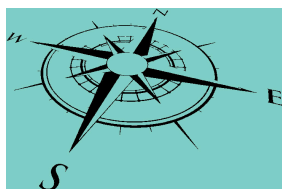
While the declinists focus on America’s numerous weaknesses, and its current political and cultural tensions that distract from taking needed action, the United States still has enormous competitive advantages globally. Despite some recent declines, it has many of the world’s leading universities, although government funding continues to fall. If it chooses to, it can attract talent from just about every nation in ways China can’t. It maintains many significant leads in key industries such as IT, software, life sciences, medical devices, agriculture, financial services, professional services, media/entertainment, aerospace, and defense. It is blessed with a remarkable land full of natural resources, and a population composed of people from every corner of the globe, many of whom are entrepreneurial. The English language will remain the world’s dominant mode of global communication for a great many years. And of course, China has its own well-known weaknesses, especially its rapidly aging population, and increasingly its alienation of many other nations through its so-called “wolf warrior diplomacy.”

Additionally, the United States is far from the only nation concerned about China’s rising influence. In just the last few months, India, Australia, the United Kingdom, the European Union, and the Philippines, among others, have all strongly objected to various Chinese actions. If the United States develops an effective China strategy, at least some other nations might well join in. But how can all these strengths and advantages best be harnessed?

Contents

Vision.....	4
Mission.....	4
Values	4
1. Supply Chains	6
1.1. Transparency	6
1.2. Incentives	6
1.3. Engagement.....	6
1.4. Self-Sufficiency.....	6
1.5. Tariffs	7
2. Market Size	8
2.1. Expansion	8
2.2. Language	8
2.3. Advancement.....	8
2.4. Reciprocity	8
2.5. Voice	9
3. Business Competition.....	10
3.1. Tech	10
3.2. Talent.....	10
3.3. India.....	10
3.4. Automation.....	10
3.5. Mindset.....	11
4. Geopolitics	12
4.1. Respect	12
4.2. IT Usage	12
4.3. Talent.....	12
4.4. Alliances.....	12
4.5. Time	13
Administrative Information.....	13

DEMONSTRATION ONLY



Information Technology and Innovation Foundation (ITIF)

Description:

The Information Technology and Innovation Foundation (ITIF) is a nonprofit, nonpartisan research and educational institute focusing on the intersection of technological innovation and public policy. Recognized as the world's leading science and technology think tank, ITIF's mission is to formulate and promote policy solutions that accelerate innovation and boost productivity to spur growth, opportunity, and progress.

Stakeholder(s):

David Moschella :

Co-Author — David Moschella is a research fellow at the Leading Edge Forum (LEF), where he explores the global business impact of digital technologies. A well-known speaker and columnist, David's books include Seeing Digital—A Visual Guide to the Industries, Organizations, and Careers of the 2020s (DXC, 2018); Customer-Driven IT (Harvard Business School Press, 2003); and Waves of Power—The Dynamics of Global Technology Leadership (Amacom, 1997). Previously, he was head of worldwide research for International Data Corporation (IDC), the largest market analysis firm in the IT industry.

Robert D. Atkinson :

Co-Author — Robert D. Atkinson is the founder and president of ITIF. Atkinson's books include: Big Is Beautiful: Debunking the Myth of Small Business (MIT, 2018), Innovation Economics: The Race for Global Advantage (Yale, 2012), and The Past and Future of America's Economy: Long Waves of Innovation That Power Cycles of Growth (Edward Elgar, 2005). Atkinson holds a Ph.D. in city and regional planning from the University of North Carolina, Chapel Hill, and a master's degree in urban and regional planning from the University of Oregon.

China :

Early in this century, China made arguably the most important digital strategy decision in the history of the IT industry. It decided it would not let the giant U.S. dot-coms—especially Google, Facebook, and Amazon—just set up shop and dominate the Chinese market the way they were doing in so many other nations. Instead, it significantly limited the role of or banned U.S. firms, creating time for its own firms—especially Baidu, Alibaba, and Tencent (often called BAT)—to build similar services, or at least initially copies of U.S. services. While many in the United States argued that this type of protectionism was unfair, or even illegal under WTO, there's no doubt this “China First” strategy has been wildly successful, and led directly to China's now highly diverse and dynamic mobile and Internet services industries. Many other nations probably wish they had followed a similar course.

Google

Facebook

Amazon

Baidu

Alibaba

Tencent

Large Businesses :

Today, the United States and China are mirror images of each other. China has long sought to become self-reliant in semiconductors, software, telecom equipment, mainframes and associated storage, and databases, and over the last five or years, it has made great progress toward that goal. Its so-called De-IOE initiative has sought to reduce China's reliance on IBM, Oracle, and EMC in large business and government environments, and has helped drive Alibaba's cloud business.

IBM

Oracle

EMC

Amazon Web Services :

(Indeed, De-IOE might be better termed De-IOEAWS to include Amazon Web Services.)

Huawei :

The Huawei, ZTE, Fujian Jinhua, and SMIC (Semiconductor Manufacturing International Corporation) controversies have further convinced China that self-reliance is the best path to economic sovereignty and eventual market leadership.

ZTE

Fujian Jinhua

SMIC

United States :

The United States is coming from the opposite direction. It has always been the global market leader in most IT marketplaces, but it is now concerned about self-reliance, as its dependence

— continued next page

Stakeholders (continued)

on Chinese suppliers—and Taiwanese ones such as TSMC—has grown. If you think the United States is too dependent on Chinese technology manufacturing today, imagine if China assumed control over Taiwan. It remains to be seen whether U.S. efforts at self-reliance will be as successful as those of China, just as it is unclear whether China will be able to play a broad-based global leadership role outside of China and its immediate spheres of influence. But the bottom line is both China and the United States now have very similar IT goals. They both want to be the global leader in advanced technologies, they both want to be strategically self-sufficient, and they both want to use and govern the Internet and related technologies in their own very different ways.

TSMC

Taiwan :

Arguably the only way they can both get what they want is for significant decoupling to take place. The future of Taiwan will be especially important in this regard, as will the evolution of open source technologies, and the future direction of U.S. antitrust policy, which could threaten U.S. leadership, depending on how aggressive its new forms take.

High-Tech Sector :

Given these stakes and dynamics, U.S./China high-tech competition could be the biggest economic battle in international business history, which is why the 2015 report was called “The Clash of the Titans.” When Google, Amazon, Facebook, Apple, Intel, HP, Microsoft, IBM, Oracle, Dell/EMC, and Cisco are lined up on one side, and Alibaba, Tencent, Huawei, Xiaomi, Baidu, JD, DJI, Lenovo, SMIC, and Sina on the other, it looks like a pretty fair fight, especially if there is a level playing field, which there currently is not. The question going forward is which side will outperform the other in terms of both the underlying technologies as well as the key software and Internet platforms of the future. We know what China wants to do, and that there are no easy short-term Western answers. What we don’t know is how well the West will respond over the longer term in both the public and private sectors. Let’s turn to that now.

Vision

Western values prevail

Mission

To level the playing field for high tech

Values

Symbiosis: No one knows what future holds. Will Chinese-Western relations calm down, intensify, or remain wary through an extended Cold War? Never in modern history have two great rivals been so deeply intertwined economically, and even culturally. It’s easy to forget that there is a reason so many Chinese citizens love watching the NBA, and Chinese immigrants have so often thrived throughout the West. The natural bonds between the people—and the symbiotic strengths of the two economies—are still strong, and this creates both hope and confusion. Likewise, the rest of the world is wondering how it should respond, while trying to avoid the dangerous age-old question of, “Which

side are you on?” As we saw in the long struggle between the United States and USSR—and we see now with Huawei—such avoidance is not always possible.

Freedom: Twentieth-century history tells us to bet on freedom, democracy, and alliances—and those of us in the West are certainly inclined to stick with that advice, especially as most of the developed economies of Asia are also following that path.

Democracy

Alliance

Learning: But we should also ask ourselves, “What can we learn from China’s highly effective use of a strong and strategically engaged state? What if China didn’t oppress the Tibetans and the Uighurs? What if it didn’t crack down so harshly on Hong Kong, surveil its own citizens, and loom so ominously over Taiwan?” There’s always a chance, however slim, that China will change in these areas. What would we do and say about China’s economic model and economic success then?

Strategic Engagement

Competitive Mindset: In no way minimizing the human rights issues involved, this is the competitive mindset the West must develop and sustain.

Investment: Economically, China has clearly done a great many things extremely well—investing in itself and leveraging Western business interests to lift an impoverished, even humiliated nation to global-superpower status in less than 50 years, an achievement it will hammer home during the centennial celebrations of 2021. Given that so many nations remain underdeveloped, it’s not surprising many might think China has something to teach them, especially as the Washington Consensus of free markets and limited government has often failed. Given the speed of its advancement, perhaps China has something to teach the West as well. A new “great game” is on, but who will play it best? The 2020s seem likely to be the decisive decade.

1. Supply Chains

REBALANCE SUPPLY CHAINS

1.1. Transparency

Require operational transparency

Requiring U.S. and Western companies to publish information about the size of their China operations in terms of revenues, value of imported goods, technology-transfer activity, critical dependencies, investments, partnerships, and similar information would provide both transparency and measurable data so changes could be tracked over time. (Such reporting is analogous to today's efforts to get companies to produce more-detailed carbon emissions data.) Transparency is the only way to really understand the dynamics behind today's trade deficit. It's a low-cost, high-value area.

1.2. Incentives

Provide financial incentives

Many firms are already diversifying their production to become less dependent on China, but direct financial incentives, in the form of grants or tax breaks, could accelerate the process, as they are now doing in Japan. In the United States' case, some work will come back to America, but countries such as Vietnam, Mexico, and India will also likely benefit, which would weaken China. There are modest costs to such programs, but also tangible value—and this would be a sign of real change, especially when combined with the previously mentioned reporting requirements. A case in point is recently proposed legislation to support the U.S. semiconductor industry that includes incentives for companies to establish fabs in the United States.

1.3. Engagement

Engage consumers

Leverage the power of consumers. If the labels “Made in China” or “Made in Xinjiang, China” (or made anywhere else) were more prominent, consumers could make a more-conscious choice about how much these issues matter to them. Similarly, labels such as those used today for “fair trade” or “environmentally friendly” could be used to pressure China in various ways. This approach has low costs, and potentially high value. It also taps into the power of the consumer, which will be increasingly important as Chinese brands such as Huawei, Xiaomi, Haier, and TikTok go global. The Chinese government routinely uses its influence to shape how Chinese consumers feel about individual American brands.

Stakeholder(s):

Consumers

1.4. Self-Sufficiency

Pursue self-sufficiency

Pursue greater domestic production in key areas. Again, companies are already moving in this direction, but a national effort to ensure the skills, capacity, and resources to meet emergency societal needs would be a significant step toward reducing Chinese dependencies. Although self-sufficiency projects might prove to be complex and costly, some action here seems likely, as the lessons of COVID-19 sink in. The recently proposed \$750 million U.S. government loan to Kodak to make more pharmaceuticals in the United States is a good

example, whether or not it was given to the right firm through the right process. Rare earth minerals—or alternatives—are another important area. More generous tax incentives for investment in R&D, skills, and capital goods will also need to play an important role.²⁸ And this self-sufficiency does not need to be American, it can and in many cases should be allied, as it is in current efforts around rare earth minerals.

1.5. Tariffs

Use targeted tariffs

Use targeted tariffs and domestic content sparingly. These types of direct interventions can play a role if used carefully. But both can easily trigger retaliation, and often have hard-to-foresee second-order and gaming effects. There is much debate about the impact of the current China tariffs, but if nothing else, they have spurred some initial decoupling and put trade with China on the political map. But tariffs on intermediate goods—semiconductors, for example—as opposed to final goods, can reduce overall U.S. competitiveness by raising input costs.²⁹ And “Buy American” provisions, as opposed to “Buy Allied” provisions, can lead to countermeasures from other nations.

2. Market Size

ADJUST TO CHINA BEING THE WORLD'S LARGEST ECONOMY

2.1. Expansion

Expand the market

Although China will eventually become the world's biggest economy, it will still only be about 15 percent of global GDP. If large portions of the rest of the world are highly integrated economically, they will add up to far more than that. This means avoiding excessive nationalism and protectionism in much of the non-Chinese world. While current trends here are not favorable, if every country goes down a path of high levels of self-sufficiency and national-champion support, the world will become much less efficient and much less well-off, and China's advantage will grow, in part because of their size and scale advantages. In this regard, deep trade integration within the Americas (from Alaska to Tierra del Fuego) and a strong U.S.-India free trade agreement would be of great benefit—as would, if the Europeans could find the political will to do it, a U.S.-EU trade agreement.

2.2. Language

Leverage English

Taken together, English-speaking nations will account for a greater GDP than China's, especially as India modernizes. (If nations with a strong English-as-a-second-language position are also included, the numbers will be much greater than anything China can do.) Looking ahead, there is little chance that Chinese will rival or replace the global role of English for many decades, if ever. This creates major opportunities in media, entertainment, software, law, education, and other language-intensive fields, especially if U.S. foreign policy and the State Department do more to build on this strength.

2.3. Advancement

Be an advanced user

Pursue advanced technology usage. You don't have to be the biggest to be the best, and being a leader in advanced technology usage is an excellent way to stay independent. If Western businesses stay ahead in applying technology within their respective industries, it will be difficult for China to expand its success beyond physical traded goods. However, as Chinese firms are investing heavily in AI and automation, supported by Chinese governments with extremely generous tax and grant programs, Western nations must do the same, in part by ensuring tax, spending, and regulatory policies, as well political rhetoric, favor such investments. As of now, they do not in most Western nations, particularly as there is now widespread fear and condemnation of advanced technology use, such as facial recognition, AI, and robotics.

2.4. Reciprocity

Insist on reciprocity

Revisit reciprocity. Establishing technology and market access reciprocity has long proved difficult because China hasn't had much technology to share, and there have been few Chinese companies seeking global market access. Both of these factors will have to change if China is to meet its goals, and as it does, reciprocity should

become easier to insist upon, especially if the United States, Europe, Japan, and other nations agree and insist upon basic reciprocity rules.

2.5. Voice

Speak collectively

Succeeding in the Chinese domestic market is arguably the most effective solution of all. But for the foreseeable future, this means playing by many Chinese rules that often are not palatable.

Stakeholder(s):

Western Companies :

At a time when Western companies are expected to speak out on social justice issues within their own countries, remaining silent on China may well become untenable.

Business Roundtable :

Although there are no easy answers, rather than remain silent, businesses might try to speak more collectively through groups such as the Business Roundtable, the Semiconductor Industry Association (SIA), and similar organizations.

Semiconductor Industry Association

(SIA) :

Looking back, SIA has played a highly visible role in the U.S. response to Japan, both in terms of its advocacy and its ability to collect and publish relevant data.

Hong Kong :

The recent joint actions of Google, Microsoft, Facebook, Twitter, and others regarding Hong Kong may be a small step in that direction.

Google

Microsoft

Facebook

Twitter

Nations :

In addition, nations should consider altering antitrust laws to allow Western companies to cooperate more effectively against China. At the same time, nations should more-formally cooperate to resist Chinese economic threats and intimidation.

Political Leaders :

Finally, political leaders and the elite class need to stop condemning companies for doing business in China and agreeing to comply with Chinese laws.

Human Rights Advocates :

Such condemnation may assuage human rights advocates and play to the crowd, but they have no effect on Chinese behavior, and limit U.S. competitiveness vis-à-vis China.

3. Business Competition

INCREASE WESTERN COMPETITIVENESS

3.1. Tech

Make tech a national priority

Prioritize technology leadership. The United States may or may not need a formal organization such as SEMATECH, but systematically assuring that U.S. companies, universities, government agencies, and defense companies are doing the necessary R&D in critical areas such as AI, robotics, space, biotech, new materials, cybersecurity, semiconductors, et al. remains a top priority—with bipartisan support and expected legislation. Although such coordination is complex and long term in nature, it is of high symbolic and actual importance, and has a track record of success. The United States has already taken modest steps recently in this direction with its Manufacturing USA Network.

3.2. Talent

Attract world-class talent

Attracting—and retaining—the best and brightest from around the world remains vital to America’s universities, companies, and entrepreneurial spirit. The U.S. educational system just isn’t producing enough STEM talent on its own, in part because of a lack of any serious domestic STEM agenda, and U.S. universities, for financial reasons, giving priority to foreign students. Although the appeal of studying in the United States has declined somewhat in recent years, this pattern must be reversed. Probably the toughest question is to what extent—and on what terms—students from China should be included in this mix. Assuring a STEM talent pipeline is low cost, and has always had a very high payback.

3.3. India

Partner with India

A close alliance with India would provide both the talent and the market size to fully match—or even exceed—China over the longer term. There may be no more important U.S. relationship. Another advantage of alignment is many U.S. firms might move production out of China to India. Building this alliance is relatively low cost, but requires political adroitness and commitment. Thus far, there has been much more talk than meaningful action. On the other hand, the big risk is that if India drifts away from the West it might get closer to China than it is today. The combination of India’s global software and services skills and China’s hardware leadership would provide potentially devastating competition to Silicon Valley.

Stakeholder(s):

India

3.4. Automation

Lower costs via automation

Reduce U.S. cost disadvantage. This can be done in two main ways—either by lowering labor costs or increasing output through innovation and automation. Clearly, the latter is preferable, as we wrote about in our recent report, “The Enterprise Automation Imperative.” Enterprise automation has sharply accelerated in response to COVID-19, but there is still much more that can be done by both the public and private sectors, and

China is rapidly pressing ahead with its own automation efforts. This begins by stopping the now all-too-prevalent demonization of automation and productivity, coupled with expanding tax incentives for investing in new capital equipment.

3.5. Mindset

Develop a value chain mindset

Too often, U.S. companies have focused on the top-down delivery and consumption of the end product, with insufficient focus on the full industry value chain—from raw materials to components, subsystems, logistics, and related ecosystems. China has taken much more of a bottom-up approach, and history shows that it's easier to move up a value chain than down one. Having visibility across the entire value chain is critical strategically, but many companies still fall well short of this goal, and most government agencies have relatively little industry-specific value chain knowledge or data, with many outdated data-collection and reporting processes. In this sense, a thorough modernization and expansion of the federal economics and business statistics system is long overdue.

4. Geopolitics

ENSURE THE WEST REMAINS THE MORE APPEALING SOCIETAL MODEL

4.1. Respect

Respect what China has accomplished

China has lifted more people out of poverty faster than any country in history. This shouldn't be dismissed as merely the result of state subsidies, IP theft, environmental degradation, low wages, and other concerns. Clearly, many nations do similar things without similar economic success. The effectiveness of China's infrastructure investments, educational systems, entrepreneurship, and government planning must be acknowledged. Moreover, Japan, Korea, and Taiwan have shown that nations can adopt government-enabled economic development strategies without the human rights and other downsides. If China did the same, it might be even more powerful than it already is. The West must respect what China has done economically for the vast majority of its people.

4.2. IT Usage

Be a world-class IT user

Government policymakers often ask Leading Edge Forum (LEF) and Information Technology and Information Foundation (ITIF) what they can do to better support the technology industry, and of course there is much discussion about education, infrastructure, standards, R&D, and similarly important pursuits. But what is usually missing is the importance of government using technology effectively to meet its own needs. The best of example of this is the Internet. The U.S. government didn't set out to build a national public infrastructure. (If it had, it would probably have worked with AT&T to develop something like the French Minitel system.) Instead, the U.S. Department of Defense set out to meet its own needs for a highly resilient computer network capability. The technologies behind that effort quickly became the foundation of today's Internet. There are many areas wherein governments could help their domestic technology industries by better meeting their own needs in, for example, individual identity, authentication, cybersecurity, smart cities, satellite communication, geo-positioning, autonomous systems, health IT, fintech, AI, clean energy, and many other areas.

4.3. Talent

Remain a talent magnet

In advanced fields such as AI, robotics, autonomous vehicles, and quantum computing, a relatively small group of people do most of the pioneering work. Where do these folks—and their families—want to live? Although China spends lavishly to attract talent and provide world class resources, most technology experts are still wary of moving there. Additionally, many highly skilled people would prefer to live in an English-speaking nation, as English is often either their first or second language. This is a huge natural advantage for the United States, United Kingdom, Canada, Australia, New Zealand, and, increasingly, India. It needs to be nurtured and leveraged. Helping spread tech hubs to a few more places across America would make that strategy easier.

4.4. Alliances

Leverage allies

Work with allies. China has very few natural allies. It has a relationship of convenience with Russia, a weak client state in North Korea, and various ties via its subsidized Belt and Road initiative. But mostly it is

surrounded by powerful Western-leaning nations: Japan, South Korea, Taiwan, India, Australia, New Zealand, Vietnam, and more. Outside of Asia, China has many business interests, but few natural supporters. But thus far, the West has done a poor job of leveraging this situation, especially in regards to so-called “forced” technology transfers. If every nation refused to transfer its advanced technologies as a precondition of operating in China, China might have to back off. But once one company or country yields in a given industry sector, it becomes very hard for others in that sector to hold out. Similarly, there is also much more strength and safety when nations speak up collectively on sensitive China topics.

4.5. Time

Buy time

China’s population is expected to peak within the next few years, and then flatten and age rapidly. This means the 2020s may be the height of China’s potency, with major demographic challenges emerging by the 2040s. While many developed nations will see their populations age, China—like Japan and South Korea—will be a particularly severe case, unless today’s low levels of immigration increase dramatically, or China can leverage the labor forces across its Belt and Road-related initiatives. In contrast, the U.S. and India populations are still rising and relatively young. Although no one can predict the long-term future, perhaps we’re not facing a century of Chinese dominance, but rather major adjustments that will buy time for a decade or two. It’s a very different mindset.

Administrative Information

Start Date: 2020-08-31

End Date:

Publication Date: 2020-09-01

Source: https://itif.org/publications/2020/08/31/competing-china-strategic-framework?mc_cid=cf0bd476a4&mc_eid=131f75a87f

Submitter:

Given Name: Owen

Surname: Ambur

Email: Owen.Ambur@verizon.net

Phone: