



False Promises: The Yawning Gap Between China's WTO Commitments and Practices

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A yawning gap remains between China's WTO commitments and its trade practices; only a concerted policy of constructive confrontation can restore the balance.

Almost 15 years after China joined the World Trade Organization (WTO) in 2001, the vision of China embracing a rules-governed, market-based global trade system has yet to materialize. If anything, the country's aggressive innovation mercantilism has grown stronger in recent years, as China seeks absolute advantage across a wide range of advanced-technology industries. This report examines the gap between China's WTO commitments and practices, explores how the original proponents of China's WTO membership got it so wrong, and explains how only a policy of "constructive confrontation" will prove adequate in addressing China's increasingly "innovation mercantilist" trade practices.

INTRODUCTION

China entered the WTO to great fanfare in 2001, with pundits and policymakers alike predicting it would embrace market-based economic principles and commit to the core tenets guiding liberalized trade and globalization. And to be sure, China did reform thousands of domestic laws and has complied with many of its WTO commitments—such as joining the Information Technology Agreement (ITA) and reducing average tariffs on industrial products. But all too often, one step forward has been met with two steps backward, as China has erected new, often behind-the-border non-tariff barriers (NTBs) to more than compensate for concessions elsewhere. These have more than offset China's apparent concessions.¹ In many other cases—such as its practice of limiting market access or conditioning access on the transfer of technology or intellectual property, or its ongoing subsidies for state-owned enterprises (SOEs) and export industries—China has simply failed to fully comply with its WTO accession commitments and membership requirements. But even worse is the fact that Chinese economic and trade policies

China's economic and trade policies increasingly contravene fundamental principles of global trade, including national treatment, nondiscrimination, and rules-governed, market-based trade in accordance with the theory of comparative advantage.

increasingly reject or undermine the foundational tenets and principles upon which the WTO, and indeed, globalization is based: those of national treatment, nondiscrimination, transparency, and the primacy of rules-governed, market-based trade in accordance with the theory of comparative advantage. This disregard for international rules of market-based competition is increasingly apparent as China continues to develop a robust set of mercantilist policies, virtually all of which violate the spirit, if not the letter, of the World Trade Organization's laws.²

Yet almost 15 years ago, it appeared the story would be quite different. China would join the WTO and it would change China, not the other way around. Alas, that has not happened. This report examines many of the optimistic and downright Pollyannaish predictions made by the original backers of China's entry into the WTO, evaluating those expectations against the reality of Chinese economic and trade policies as they stand today. It finds that much of the euphoric rhetoric has fallen significantly short of reality in light of China's failure to embrace core principles of the WTO and the rules-based trading system, its lack of adherence to specific commitments made upon WTO entry, and finally to the absence of tangible outcomes and results that were to be expected from China's participation in the WTO. The paper notes that, if anything, in recent years China has moved further from its WTO promises, suggesting that those who believe China will eventually embrace the "Washington Consensus" of free markets and liberalized trade are sorely mistaken.

To be clear, a China that participates in the global trading system while abiding by the rules and norms of the WTO system is a plus for the global economy. However, a China that uses the WTO as a shield to protect its innovation mercantilist policies is not. To remedy this situation, the Information Technology and Innovation Foundation (ITIF) recommends that the United States and Europe work together to confront and eliminate Chinese innovation mercantilism. In particular policymakers in those countries should:

- Adopt a policy of constructive confrontation with China that moves from a legalistic engagement with China to a results-oriented one. This should entail holding China to specific goals, such as significantly reducing its global current account surplus, as well as procedural goals, such as securing a commitment from China to shift from predominantly export-led growth to growth generated chiefly by raising productivity and growth in the country's non-traded sectors. This also means making China's innovation mercantilism a higher foreign affairs priority than issues such as climate change, human rights, or North Korea.
- An Office of Globalization Strategy should be created within the United States' Trade Representative's Office (USTR), charged with thinking systemically about the design of U.S. trade policy in the context of globalization and U.S. competitiveness.
- The White House should establish a new National Industrial Intelligence Council charged with creating a better process and structure to understand the long-term implications of other nations' economic development strategies.

China astutely knew what it had to promise to gain access to the WTO club and it made these promises, but its subsequent actions demonstrate that China had no real intention of living up them.

- The U.S. government should increase funding to enable English-language translations of key Chinese industrial strategy publications, including every document guiding development of China's seven so-called strategic and emerging industries (SEIs).
- Congress should bolster USTR's trade enforcement capacity, including passing legislation that would create a Chief Trade Enforcement Officer and a Trade Enforcement Working Group within USTR, thus institutionalizing the function of trade enforcement in the agency. Such legislation should further establish a chief manufacturing negotiator position at USTR to protect the interests of American manufacturers in trade negotiations.
- To empower multinational companies to better resist Chinese forced technology transfer requirements, Congress should pass legislation allowing firms to ask the Department of Justice for an exemption to coordinate actions regarding technology transfer and investment in other nations.
- Congress should, at a minimum, update the charter of the Committee on Foreign Investment in the United States (CFIUS) to address the realities of modern-age state capitalism, including allowing reviewers more than 30 calendar days to approve transactions or move them to a second-stage investigation and transferring the chairmanship of CFIUS from the Treasury Department to the Department of Commerce.
- Congress could move beyond reforming the relatively narrow CFIUS process to create a more comprehensive foreign investment review process (as nations such as Australia, Canada, and the United Kingdom have done) that would go beyond a mere national security screen to further differentiate between foreign direct investment (FDI) that operates according to market-driven principles and FDI that operates according to state-directed, mercantilist principles.
- Congress should enact legislation that requires Chinese entities licensing technology in the United States to have to do so on the same terms that China requires U.S. entities to license their technology in China.
- The United States and Europe should cut off scientific and other cooperation with China, until such time as its use of technology mercantilist practices abates.
- U.S. and European Union (EU) governments need to ensure that any Bilateral Trade and Investment (BIT) treaties signed with China contain strong and enforceable provisions against forced technology transfer or forced localization of research and development activity.
- Congress and the administration should step up investigation and prosecution of IP theft, impose more severe sanctions against foreign companies that misappropriate American IP, including denying such firms access to the U.S. banking system, and emphasize the quick and comprehensive sequestration of imported goods using stolen or pirated IP, thus adopting these and other

recommendations from the *IP Commission Report on the Theft of American Intellectual Property*.³

- The United States and Europe should better coordinate with like-minded nations in confronting aggressive Chinese mercantilism, starting with successfully completing the trade pacts currently being pursued in the Asia-Pacific region through the Trans-Pacific Partnership (TPP) and the Trans-Atlantic Trade and Investment Partnership (T-TIP) with European Union nations.
- The United States should continue to recognize China as a non-market economy.

EXPECTATIONS UPON CHINA'S WTO ACCESSION

Negotiations toward China's accession to the General Agreement on Tariffs and Trade (GATT) and its successor organization, the WTO, began in 1986 and took 15 years to complete. China entered the WTO on December 11, 2001, with each of the WTO's then-142 members voting in favor of its application.⁴

At the time, pundits hailed China's accession as a pivotal moment that definitively heralded China's shift toward a market-based economy that would adhere to the rules of international trade embodied initially in the GATT and subsequently incorporated into the WTO. For instance, Dr. Supachai Panitchpakdi, who served a three-year term as Director-General of the WTO from 2002 to 2005, and Mark Clifford, then a regional editor for *BusinessWeek*, exclaimed in their book *China and the WTO: Changing China, Changing World Trade* (hereinafter, "*China and the WTO*") that "It is virtually impossible to overstate the importance of bringing the world's most populous nation into a system that establishes internationally accepted rules for economic behavior."⁵ They continued, "The WTO will set out the rules for a market-based economy ... The agreement signals China's willingness to play by international trade rules and to bring its often opaque and cumbersome governmental apparatus into harmony with a world order that demands clarity and fairness."⁶

Nor were Panitchpakdi and Clifford alone. Mike Moore, the WTO's Director-General in 2001, gushed that "China's decision to join the WTO is momentous. Committing itself to WTO rules will entrench market-based reform and strengthen the rule of law ... China's opaque and arbitrary trade and investment rules will become transparent, stable, and more predictable."⁷ Moore assuaged those concerned China might not live up to its commitments, intoning that, "A more open China brings benefits for everybody ... China knows it has to stick to its WTO commitments. If it doesn't, the U.S. or any other WTO member government can use the organization's dispute-settlement procedures to ensure it does."⁸ The WTO itself stated, "China has agreed to undertake a series of important commitments to open and liberalize its regime in order to better integrate into the world economy and offer a more predictable environment for trade and foreign investment in accordance with WTO rules."⁹

Pascal Lamy, in 2001 the European Union (EU) trade commissioner who negotiated Chinese WTO entry on behalf of the EU and later became WTO Director-General, deemed China's accession a "win-win agreement" that would "serve to boost the rule of law

in China” while giving countries (including China itself) “predictable, rules-based access to other markets.”¹⁰ American officials were exuberant as well. President Bill Clinton’s National Security Advisor, Sandy Berger, affirmed that, “China’s accession to the WTO would assure that China would ‘play by the rules of the international system’.”¹¹ President Clinton himself called China’s accession “A hundred-to-nothing deal for America when it comes to the economic consequences,” while President George W. Bush had promised that granting permanent normal trade relations (PNTR) to the Middle Kingdom would “narrow our trade deficit with China.”¹²

Almost 15 years later, enough time has passed that it is worth comparing the promise with the reality. And the reality is that Chinese accession to the WTO on balance did not move the country significantly toward the WTO trading order because by and large China has not lived up to its commitments. Nor has it led to a reduced trade deficit. Nor has the dispute settlement system worked in any serious way. China astutely knew what it had to promise to gain access to the WTO club, and it made these promises, but its subsequent actions demonstrate that China had no real intention of keeping them. For China, getting into the WTO was more about gaining carte blanche protection against trade enforcement measures other nations might want to unilaterally take against them than it was about driving internal reform and moving toward a market-based economy. Not only did China ramp up its mercantilist policies and practices after joining the WTO, but China’s actions revealed the WTO enforcement process for what it is with regard to the kinds of informal, subtle, and yet effective innovation mercantilist practices some countries use: a paper tiger.

Table 1 summarizes area after area where China made promises and failed to deliver:

Chinese WTO Commitment	Has China Lived up to the Commitment?
Not requiring technology transfer as a condition of market access	No
Joining the Government Procurement Agreement (GPA)	No
SOEs making purchases based on commercial considerations	No
SOEs shrinking as a share of the economy	No
Foreign banks enjoying national treatment	No
Telecommunications market opening to foreign producers	No
Foreign film distribution being liberalized	No
Export subsidies being substantially reduced	No
Intellectual property theft and violations being significantly reduced	No
Abiding by Technical Barriers to Trade Agreement and not manipulating technology standards	No
Moving toward a “Washington Consensus” model of development	No

Table 1: Chinese Commitments Upon Entering the WTO and Outcomes Today

It is time to realize that the WTO system does not work when it comes to nations that reject the core notion of market-based comparative advantage in favor of mercantilist-based state capitalism.

China should not be allowed to have it both ways. It claims that its anti-WTO, mercantilist practices are needed to grow its economy, but at the same time it wants to be inside the global rules-based trade system and enjoy its advantages, including protection from unilateral trade sanctions. In short, it is time to realize that the WTO system does not work for nations that reject the core notion of market-based comparative advantage in favor of mercantilist-based state capitalism.

MISREADING CHINA'S COMMITMENT TO CORE WTO PRINCIPLES

But for all the positive rhetoric associated with China joining the WTO, perhaps no one was more optimistic about the promise of China's WTO accession than Panitchpakdi and Clifford's *China and the WTO*. The following sections examine what Panitchpakdi and Clifford, along with other pundits, got wrong with regard to China's WTO accession and participation, reviewing their hopeful predictions and comparing them to reality.

To start with, the WTO system is grounded in a number of core assumptions and principles. A core assumption, and indeed a fundamental predicate of rules-governed, market-based trade, is the theory of comparative advantage: the notion that countries all have an advantage in some kind of production relative to others and that it is those products or services that they should specialize in production and export of and use those gains to trade for products and services for which their comparative advantage is less.¹³

Perhaps the most serious misreading of China's designs in joining the WTO relate to its willingness to embrace trade practices grounded in the theories of comparative advantage and liberalized trade. As Panitchpakdi and Clifford opined, "WTO membership will also ensure that China doesn't follow the more autarkic, export-oriented, heavy-industry policies that Japan and Korea had pursued ... China's size means that international trading partners would be even more concerned about the development of an export juggernaut that restricted imports into the Chinese market than they were in the case of Japan and Korea."¹⁴

In fact, since joining the WTO, China has run an accumulated global trade surplus of \$1.95 trillion.¹⁵ China's long-standing currency manipulation to keep its currency, the renminbi (RMB), low was used precisely to run such trade surpluses, as were its massive export subsidies. But China not only runs mercantilist trade surpluses, it has engaged in a strategy of "innovation mercantilism" that seeks to support domestic producers at the expense of foreign competitors in pursuit of its goal of moving up the value chain. This approach became evident in 2006, when China pivoted from an economic development strategy that sought principally to induce foreign multinationals to shift production to China to a "China Inc." model of "indigenous innovation" that focused explicitly on supporting Chinese enterprises, often at the expense of foreign ones. Marking this shift was a seminal document called the *National Medium- and Long-Term Program for Science and Technology Development (2006-2020)*, or "MLP," which called on China to master 402 key technologies, from intelligent automobiles to integrated circuits and high-performance computers.

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Rejecting the notion of *comparative advantage* or even *competitive advantage*, the MLP essentially announced that Chinese economic strategy now sought *absolute advantage* across virtually all advanced technology industries.¹⁶ The MLP reflected China's desire to dominate in production of both advanced technology products such as airplanes, semiconductors, and pharmaceuticals *and* commodity manufacturing. Essentially, Chinese policymakers are trying to autarkically supply Chinese markets for advanced technology products with local production while still benefitting from unfettered access to global markets for their technology exports.¹⁷ China has deployed currency manipulation, subsidies, tariffs, forced technology transfers, export restrictions, and manipulative standards setting, among other policies, in its effort to gain absolute advantage across a wide range of advanced technology industries.

For example, China's "National Guidelines for Development and Promotion of the Integrated Circuit (IC) Industry"—essentially, China's national semiconductor industry development strategy—charters a National Integrated Circuits Industry Investment Corporation that intends to invest more than \$100 billion in China's semiconductor industry over the next decade with the goal of creating a completely closed-loop semiconductor ecosystem, from design and prototyping to manufacturing, assembly, testing, and packaging. Moreover, China's government has set ambitious, long-term national guidelines for the development of its semiconductor industry, including specific revenue targets of 20 percent compound annual growth and increasing the industry's size to \$140 billion by 2020.¹⁸ The strategy also unabashedly calls for China to reduce imports of U.S. semiconductors by half in 10 years and to eliminate them entirely within 20 years. That's a far cry from China rejecting the "autarkic, export-led economic development models" pursued by other Asian tigers, as Panitchpakdi and Clifford suggested.

China's clearly stated aim is to become an advanced world-class player in all major segments of the semiconductor industry by 2030. The influence of China's government is readily apparent in this strategy, with one Chinese official stating that the government intends to have "the visible hand of government join with the invisible hand of the market."¹⁹ The most visible manifestation of that hand comes in the form of investment, specifically National and Regional IC Funds that have already accrued more than \$100 billion in assets, with much of the funds channeled from government through state-owned enterprises into private equity firms so that China can claim to give the veneer that the funds will make "market-based" transactions in accordance with WTO principles. A substantial portion of those funds are being used to acquire foreign competitors in the semiconductor industry; in fact, since June 2014 Chinese entities have made 17 acquisitions across different levels of the semiconductor industry value chain, with the most notable target being China's Tsinghua Unigroup's \$23 billion bid for Micron Technologies in July 2015.²⁰

China's government also intends to pull other industry policy levers in its pursuit of building up its semiconductor sector. For example, the IC Promotion Guidelines call for public and SOE procurement decisions in sectors such as telecommunications and Internet service providers to be "based on projects aimed at expanding domestic demand" and "based on secure and reliable" software and hardware products. China's integrated circuit

industry will also benefit from preferential research and development (R&D) subsidy programs, including “national megaprojects” that subsidize the commercial R&D and product development undertaken by Chinese semiconductor companies and special grants from government agencies that allow Chinese semiconductor firms to fund and operate their R&D programs with direct government support through a “national enterprise technology center program.”²¹ In short, China’s going to do whatever it takes to build a world-class domestic semiconductor industry, and that is going to make foreign semiconductor enterprises competing on market-based terms susceptible to unfair and non-WTO compliant trade practices.

In fact, as a recent *The Economist* article noted, even Long Yongtu, who as China’s chief trade negotiator in 2001 helped the country win WTO admission, has admitted that China is now moving further away from the organization’s principles. As *The Economist* writes, “to modernize its economy, China has remained wedded to industrial policies, state-owned enterprises, and a ‘techno-nationalism’ that protects and promotes home-grown technologies.”²²

But China has not only rejected the core assumption of the global trading system—comparative advantage—it has also rejected core trade principles embedded in the WTO. These include national treatment—which holds that companies in other signatory countries will be treated no less favorably than domestic companies, most-favored nation (MFN) treatment—which holds that all WTO members will enjoy the best offers [e.g., lowest tariff levels] made by a WTO-participating nation, nondiscrimination, and transparency.²³

In *China and the WTO*, Panitchpakdi and Clifford asserted that China would observe these principles. Regarding transparency: “China has promised to live up to international standards of transparency, accountability, and fairness ... The central promise: China promises to apply and administer its laws in an ‘uniform, impartial, and reasonable’ manner and it promises a good deal of transparency in how it makes and implements its regulations.”²⁴ Regarding notice of rule-making, they write, “China promises that all relevant laws and regulations are, in principle, to be released for public comment before they take effect ... China will give the world notice of proposed changes to its trade regime and take interested parties’ comments into account ... There is a 30-day deadline for replies to requests for information. In exceptional cases, the government may take up to 45 days, but only with a notice of the delay and an explanation for the reason of the delay.”²⁵ WTO rules further commit members to disclose subsidy support for domestic industries.

This level of transparency has not been seen in practice. For example, in October 2011, USTR identified some 200 unreported subsidy measures that China has maintained since 2004 without public notice through the WTO.²⁶ And as USTR notes, China “still does not appear to notify all new or revised standards, technical regulations, and conformity assessment procedures as required by WTO rules.”²⁷ As USTR explains, China’s WTO notifications have “rarely included measures from other agencies that appear to require notification, such as the Ministry of Health, the Ministry of Industry and Information Technology, or the Ministry of Environmental Protection ... China’s TBT [technical barriers to trade] measures continue to enter into force without having first been notified to

the TBT Committee, and without foreign companies having had the opportunity to comment on them or even being given a transition period during which they could make necessary adjustments.”²⁸

Similarly, with regard to nondiscrimination, Panitchpakdi and Clifford avow, “China promises that, except for some exceptional areas, it won’t discriminate against foreign companies. Foreigners cannot be discriminated against ... China has agreed to take specific actions to ensure fair treatment for businesses operating in China.”²⁹ Investors would also be protected, they affirmed: “After WTO entry, China’s investment environment will be codified in an international agreement that will protect foreign investors.”³⁰ Yet China continues to discriminate against foreign enterprises across a range of industries, something USTR notes in its *2014 Report to Congress on China’s WTO Compliance*. As the report explains, “China’s industrial policies on automobiles and steel call for discrimination against foreign producers and imported goods ... discriminatory treatment also remains prevalent in a variety of services sectors.”³¹ Moreover, certain aspects of China’s legal framework, such as China’s extensive use of administrative licensing, “create opportunities for Chinese government officials to treat foreign companies and foreign products less favorably than domestic companies and domestic products.”³²

Panitchpakdi and Clifford also argued WTO accession would have a powerful impact at curtailing corrupt practices undermining transparency and potentially advantaging domestic competitors: “By reducing discretionary power and promoting transparency, WTO status should help whittle away at corruption.”³³ In fact, they argued, “One of the WTO’s biggest contributions may be in sweeping away the local favoritism that has long irked officials in Beijing.”³⁴ Yet corruption and rent-seeking remain rampant (to the point that President Xi Jinping announced a corruption crackdown in late 2012), with China ranking 100th (out of 175 nations) in the latest Transparency International Corruption Perceptions Index.³⁵

OVERESTIMATING CHINA’S WILLINGNESS TO ADHERE TO WTO COMMITMENTS

Yet equally as serious as profoundly miscalculating China’s embrace of fundamental WTO principles has been the failure to foresee China’s failure to comply with scores of trade-liberalizing commitments it made as part of its WTO accession package with regard to a wide range of issues including: market access, nontariff barriers, intellectual property (IP) protection, and state support and subsidies for domestic enterprises and industries. While reports such as ITIF’s *Enough is Enough: Confronting Chinese Innovation Mercantilism*, USTR’s *2014 Report to Congress on China’s WTO Compliance*, and the Congressional Research Service’s *China-U.S. Trade Issues* comprehensively document China’s failure to comply with many specific provisions of its WTO accession commitments and WTO rules specifically, this section analyzes several claims of the original optimistic China WTO backers and document where their confidence fell short.

Technology or IP Transfer Requirements as a Condition of Market Access

The Economist recently (erroneously) wrote, “Thanks to the WTO, foreign firms are no longer required to hand over technology in exchange for entry to China’s market.”³⁶

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Panitchpakdi and Clifford were actually conflicted on this point, at one point writing, “China has agreed to take specific actions to ensure fair treatment for businesses operating in China. These include limits on technology-transfer requirements, offsets, and export performance requirements.”³⁷ Yet a few pages subsequently they admit, “It’s hard to imagine that all sorts of technical barriers to trade ... will disappear overnight. They never do. Technology-transfer requirements and local-content standards are so deeply ingrained in the minds of many officials that these, too, won’t disappear easily. In fact, if not in law, they are likely to remain in some form.”³⁸

Almost 15 years after China’s entry into the WTO, there’s relatively little confusion on the subject. Although China’s WTO accession agreement contains rules forbidding the country from tying foreign direct investment or market access to requirements to transfer technology to the country, it remains commonplace to require that firms transfer technology in exchange for being granted the ability to invest, operate, or sell in China.³⁹ This despite the fact that in the November 2001 *Report of the Working Party on the Accession of China to the WTO*, “The representative of China confirmed that China would only impose, apply or enforce laws, regulations or measures relating to the transfer of technology, production processes, or other proprietary knowledge to an individual or enterprise in its territory that were not inconsistent with the WTO Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS Agreement) and the Agreement on Trade-Related Investment Measures (TRIMs Agreement).”⁴⁰

But as Harvard Business School professors Thomas Hout and Pankaj Ghemawat document in their report *China vs the World: Whose Technology Is It?*, Chinese technology transfer requirements as a condition of market access have affected scores of companies in industries as diverse as aviation, automotives, chemicals, renewable energy, and high-speed rail.⁴¹ To be sure, because such conditions contravene China’s WTO commitments, officials are careful not to put such requirements in writing, often resorting to oral communications to pressure foreign firms to transfer technology.⁴² In 2011, then-U.S. Treasury Secretary Timothy Geithner laid such concerns about China’s technology transfer requirements in the open, stating that “we’re seeing China continue to be very, very aggressive in a strategy they started several decades ago, which goes like this: you want to sell to our country, we want you to come produce here. If you want to come produce here, you need to transfer your technology to us.”⁴³

Indeed, the U.S.-China Business Council’s *2014 China Business Environment Survey* reports that 62 percent of companies had concerns about transferring technology to China, while 20 percent reported that they had been requested to transfer technology to China within the past three years.⁴⁴ Likewise, a 2012 American Chamber of Commerce in China survey reported that 33 percent of its respondents stated that technology transfer requirements were negatively affecting their businesses.⁴⁵ Put simply, technology transfer requirements as a condition of doing business in China remain a key pillar of China’s innovation mercantilist strategy.

Government Procurement and State-Owned Enterprises

In joining the WTO, China agreed to join the Government Procurement Agreement (GPA), which prohibits restrictions on government purchases between member countries in accordance with the national treatment principle and further committed “to full transparency and non-discrimination (MFN) in government purchases.”⁴⁶ But while China has now tabled five offers (relating to the levels of government and types of procurement activities that would be covered by its GPA commitment), USTR notes that, “To date, the United States, the European Union, and other GPA parties have viewed China’s offers of coverage as highly disappointing in scope and coverage.”⁴⁷ In other words, almost 15 years after it joined the WTO, China has yet to make a credible offer for GPA coverage, despite its commitment to do so swiftly in 2001.

Beyond GPA-related commitments regarding well-recognized government agencies (such as Ministries of Health and Transportation), in joining the GPA China also “agreed that it will ensure that state-owned and state-invested enterprises will make purchases and sales based solely on commercial considerations, such as price, quality, availability and marketability, and that it will provide U.S. firms with the opportunity to compete for sales and purchases on non-discriminatory terms and conditions.”⁴⁸ Panitchpakdi and Clifford note that “China further agreed not to influence these commercial decisions (either directly or indirectly) except in a WTO-consistent manner.”⁴⁹ Moreover, with respect to applying WTO rules to state-owned or state-invested enterprises, Panitchpakdi and Clifford explain that China has “clarified in several ways that these firms are subject to WTO disciplines” including that “purchases of goods or services by these state-owned and state-invested enterprises do not constitute ‘government procurement’ and thus are subject to WTO rules” and that such firms are subject to the WTO Agreement on Subsidies and Countervailing Measures.⁵⁰

Yet these commitments fly in the face of explicit Chinese efforts to curtail Chinese government agency and state-owned enterprises’ procurement of U.S. enterprise-developed or manufactured information and communications technology (ICT) products. For example, in 2014, the Chinese central government ruled that government offices were prohibited from running Windows 8 (even though most versions were pirated rather than paid for).⁵¹ Around the same time, the Chinese government also announced its scarcely concealed “De-IOE campaign” designed to pressure Chinese companies, especially SOEs, to replace their IBM, Oracle, and EMC products with Chinese-made products and services.⁵²

Regarding state direction of the economy and state-owned enterprises more broadly, Panitchpakdi and Clifford predicted that SOEs would be hit hard by China’s accession to the WTO, noting that “Important props for state domination of the economy will be eliminated.”⁵³ The authors asserted, “Some 25 million of the 85 million workers at state-owned enterprises will see their jobs disappear as more-efficient foreign companies produce in China or import products from abroad.”⁵⁴ The authors foresaw “Dramatic growth in the private sector and a stagnant state-owned sector [that] look to be features of the Chinese economic landscape that will endure for some time to come.”⁵⁵

Thirty-five percent of firms in a recent survey stated they were placed at a competitive disadvantage as a result of Chinese industrial policies that favored state-owned enterprises.

But as MIT Sloan School of Management Professor Yasheng Huang noted in a recent presentation on “Business and Government Relations in China,” while the number of SOEs in China has declined (from some 400,000 in 1997 to approximately 150,000 in 2008), their combined assets have grown from 125 billion RMB to 416 billion RMB over that timeframe, meaning that Chinese SOEs are today stronger and more streamlined than ever.⁵⁶ In fact, China’s 121 biggest SOEs increased their total assets from \$360 billion in 2002 to \$2.9 trillion in 2010, in part because during the recent financial crisis approximately 85 percent of China’s \$1.4 trillion in bank loans went to state companies.⁵⁷ In total, SOEs still account for over 40 percent of Chinese GDP, and a greater share on other measures.⁵⁸ The explicit state share of employment stood at 57 percent as of October 2010, and the state-owned Assets Supervision and Administration Commission indicates that the assets of its firms grew from the equivalent of 60 percent of GDP in mid-2003 to 62 percent of GDP in mid-2010.⁵⁹

Chinese state-owned enterprises also account for the majority of China’s offshore foreign direct investment (OFDI) activity. In fact, total Chinese OFDI stock has grown from \$4 billion in 1990 to \$298 billion in 2010.⁶⁰ In 2010, the SOE-share of China’s FDI equaled 66.6 percent, with central SOEs funding 70 percent of OFDI. As Huang notes, China’s OFDI is “state-driven and centralized” and it’s “probably historically unprecedented for the SOEs to invest on such a massive scale.”⁶¹ As noted, this influence is apparent in the semiconductor sector, where government-directed funds channeled from SOEs to private equity firms have played an important role in China’s pursuit of a number of foreign enterprises in the semiconductor sector, such as Spreadtrum Communications, RDA Microelectronics, and Micron.⁶² And it’s quite possible other leading U.S. semiconductor players, such as Global Foundry, will be targeted in the future.

Indeed, Chinese SOEs, many of which compete directly with foreign firms, receive significant benefits from all levels of Chinese government. A major benefit is not having to be profitable. For example, an in-depth 2011 study by the Unirule Institute, an independent Chinese think tank, found that in 2009 Chinese SOEs’ return on equity was about half the rate of non-state-owned enterprises, a substantial “subsidy” in and of itself. Moreover, without their government-granted advantages, including preferential financing from state banks and free land, Chinese SOEs would have operated at a 6.29 percent loss from 2001 to 2009.⁶³ The ability to consistently lose money is a considerable subsidy compared with private foreign firms that must charge enough to make a reasonable profit.⁶⁴ Another is the ability to get preferential government financing. As one study stated, “Our finding reinforces the widely-held view that the Chinese financial system allocates resources towards poorly performing SOEs.”⁶⁵ Such benefits for state-owned enterprises are a key reason why a 2013 survey by the American Chamber of Commerce in China found that 35 percent of firms stated that they were at a competitive disadvantage as a result of Chinese industrial policies that favored state-owned enterprises.⁶⁶

Panitchpakdi and Clifford asserted that “The WTO will eliminate unfair treatment that now favors state-owned firms and discriminates against foreign companies and local entrepreneurs ... By opening up protected sectors to domestic and foreign competition, from finance to agriculture ... thousands of China’s state state-owned enterprises will have

to reform or wither.”⁶⁷ Yet Chinese state-owned enterprises have not withered on the vine, as they and others predicted, but rather remain a significant, non-market-based force for competition against many foreign enterprises.

Indigenous Innovation

When China joined the WTO, it was engaged in a two-decade-long strategy of FDI attraction to support an export-oriented economy. This single-minded export focus was bad enough, but at least China was open to foreign firms. Since joining the WTO, however, China has largely abandoned that strategy in favor of an “indigenous innovation” strategy that favors Chinese enterprises not only in the procurement activities of state-owned or state-influenced enterprises, but by any means possible. In addition to the previously mentioned De-IOE campaign, in the high-end equipment manufacturing sector, China maintains a program that conditions the receipt of a subsidy on an enterprise’s use of at least 60 percent Chinese-made components when producing intelligent manufacturing equipment.⁶⁸ And despite the fact that China “clarified and underscored ... that it agreed that enterprises are free to base technology transfer decisions on business and market considerations” at a December 2014 meeting of the United States-China Joint Commission on Commerce and Trade (JCCT), China has since “announced two measures relating to [local procurement of] information technology equipment used in the banking services sector and in providing Internet- or telecommunications-based services more generally.”⁶⁹ As USTR concludes, “In 2014, policies aimed at promoting ‘indigenous innovation’ continued to represent an important component of China’s industrialization efforts.”⁷⁰ The country’s continuing indigenous innovation policies show that China’s policy remains a long way from Panitchpakdi and Clifford’s statement that “The WTO will eliminate unfair treatment ... that discriminates against foreign companies.”⁷¹

China accounts for nearly 80 percent of all IP thefts from U.S.-headquartered organizations, amounting to an estimated \$300 billion in lost business annually.

Specific Market Access Commitments

Across a range of sectors from agriculture, automotive and steel, banking and insurance, telecommunications, and professional services to motion pictures, videos, and sound recording, Panitchpakdi and Clifford affirmed that “China would lower tariffs and eliminate broad systemic barriers to U.S. exports, such as limits on who can import goods and distribute them in China, as well as barriers such as quotas and licenses on U.S. products.”⁷² But, again, China has fallen short in meeting many of these sectoral commitments.

In the automotive sector, Panitchpakdi and Clifford asserted that “The current requirements regarding local content, technology transfer, and exports will be eliminated at the time of accession ... Joint-venture producers will have more freedom to introduce new models and new vehicles.”⁷³ In essence, China agreed to revise its industrial policy for the automotive sector to make it compatible with WTO rules and principles by the time of its accession.⁷⁴ But China missed that deadline and, as USTR notes, has since “issued industrial plans covering the auto (and steel) sectors that include guidelines that appear to conflict with its WTO obligations,” such as requiring new automobile and automobile engine plants to include substantial investment in R&D facilities, even though China expressly committed in its WTO accession agreement not to condition the right of investment on the conduct of R&D.⁷⁵ Indeed, during a visit to a major U.S. auto company

Technology transfer requirements as a condition of doing business in China remain a key pillar of China's innovation mercantilist strategy.

facility in 2011, one of this report's authors toured an R&D facility that the Chinese government required to be built if the U.S. company wanted to build the joint venture factory.

Elsewhere, Panitchpakdi and Clifford contended that with the WTO, "Foreign banks will enjoy so-called national treatment within five years—in other words, they will have the same privileges that domestic banks enjoy. No favoritism can be shown to either domestic or foreign banks. Chinese banks will, for the first time, face real competition."⁷⁶ Yet, as USTR notes, while "China has taken a number of steps to implement its banking services commitments ... there are some instances in which China still does not seem to have fully implemented particular commitments, such as with regard to Chinese-foreign joint banks and bank branches."⁷⁷ And despite the United States prevailing on the matter in a July 2013 WTO ruling, China has continued to place unwarranted restrictions on U.S. and other foreign credit card and processing companies that supply electronic payment services to banks and other businesses that issue or accept credit and debit cards.⁷⁸

China made a number of commitments in the telecommunications sector, including liberalizing foreign investment, agreeing to implement "pro-competitive regulatory principles," and agreeing "to allow foreign suppliers to use any technology they choose to provide telecommunications services."⁷⁹ As USTR notes, however, "China's restrictions on basic telecommunications services, such as informal bans on new entry, a requirement that foreign suppliers can only enter into joint ventures with state-owned enterprises, and exceedingly high capital requirements, have blocked foreign suppliers from accessing China's basic [telecommunications] services market."⁸⁰

In addition, when it joined the WTO, China committed to allowing "20 films to be imported on a revenue-sharing basis in each of the three years after accession" and to permit U.S. firms to "form joint ventures to distribute videos, software entertainment, and sound recordings and to own and operate cinemas."⁸¹ However, for many years, U.S. producers were only permitted to import 16 feature-length films. When China continued to fail to provide the promised level of market access, the United States was forced to bring a WTO dispute in 2009, which resulted in the WTO ruling "that many of China's regulations on trading rights and distribution of films for theatrical release, DVDs, music, and books and journals were inconsistent with China's WTO obligations."⁸² In February 2012, China signed a memorandum of understanding (MOU) with the United States providing for substantial increases in the number of foreign films that could be imported and distributed in China each year. However, "China has not yet fully implemented its MOU commitments, including with regard to a critical commitment to open up film distribution opportunities for imported films that are distributed in China on a flat-fee basis rather than a revenue-sharing basis."⁸³

Technology Standards

The more than 500,000 global technology standards in existence today provide the underlying foundation of the global technology marketplace, governing the design, operation, manufacture, interoperability, and use of nearly everything that humanity produces.⁸⁴ As Panitchpakdi and Clifford note, in joining the WTO, China agreed to abide

by the Agreement on Technical Barriers to Trade, which “prohibits the use of tests and standards as a way of discriminating unjustly against trading partners or protecting domestic industries.”⁸⁵ In other words, the TBT prevents WTO members from using certifications and standards as a barrier to trade.⁸⁶

But as ITIF explains in “The Middle Kingdom Galapagos Island Syndrome: The Cul-De-Sac of Chinese Technology Standards,” China has made the development of indigenous technology standards, particularly for information and communications technology (ICT) products, a core component of its industrial development and economic growth strategy. China has committed to developing unique national standards for dozens of high technology and ICT products—in many cases where international standards already exist—developing homegrown standards for everything from 3G mobile telecommunications services and wireless local area networks to encryption technologies and the Internet of Things.⁸⁷ In some cases, such as with WAPI (the Wireless Local Area Network Application and Privacy Infrastructure standard that China developed as an alternative to the WiFi standard), China attempted to require that all wireless networking products sold in China would have to be WAPI-compliant and use its encryption method, in contravention of its commitment to let foreign enterprises use desired technologies in the provision of telecommunication services.⁸⁸ As USTR notes, “China has continued to pursue unique national standards in a number of high technology areas where international standards already exist, such as 3G and 4G telecommunications standards, Wi-Fi standards and information security standards.”⁸⁹ More commonly, however, Chinese officials “pressure foreign companies seeking to participate in the standards-setting process to license their technology or intellectual property on unfavorable terms.”⁹⁰ Clearly, China has not met its commitments in the telecommunications sector, either in terms of market access or in refraining from promulgating technology standards that allow companies “to use any technology they choose to provide telecommunications services.”⁹¹

Production and Export Subsidies

Panitchpakdi and Clifford suggested that levels of state subsidies to enterprises would fall dramatically with China’s entry into the WTO. Yet even though export subsidies are illegal under the WTO, China continues to use them to support Chinese enterprises.⁹² Despite the fact that the Chinese government committed to eliminating or substantially reducing export subsidies (and particularly those for loss-making state enterprises) as a condition of its WTO accession deal, it nevertheless reported more than \$2.4 billion of export subsidies in 2005 (and those were just the ones that were reported).

The subsidies for China’s steel, energy, glass, paper, and auto parts industries have been particularly intensive, contributing substantially to Chinese firms’ competitiveness in global markets and to global overcapacity in these industries.⁹³ As Usha and George Haley document in *Subsidies to Chinese Industry: State Capitalism, Business Strategy, and Trade Policy*, from 2000 to 2007, total energy subsidies to Chinese steel reached \$27.1 billion. Meanwhile, China’s glass and glass-products industry received \$30.3 billion in subsidies from 2004 to 2008, while the paper industry enjoyed \$33.1 billion in government subsidies from 2002 to 2009, and the Chinese auto-parts industry received \$27.5 billion in subsidies from 2001 to 2011.⁹⁴ Moreover, since joining the WTO in 2001, China

has yet to submit to the WTO a complete notification regarding the export or production subsidies maintained by China's central and sub-central governments.⁹⁵ Put simply, China's entry into the WTO has done little to curtail its use of production or export subsidies.

Currency Manipulation

Perhaps the largest Chinese export subsidy (and import tariff) pertains to currency manipulation, specifically China's pegging of the renminbi to the dollar. While the Obama administration (like the Bush administration before it) refuses to declare China a currency manipulator, there is no doubt the country manipulates its currency to gain export advantage.⁹⁶ This despite the fact that China's membership in the International Monetary Fund (IMF) requires the government "to avoid manipulating exchange rates or the international monetary system in order to prevent effective balance of payments adjustment or to gain an unfair competitive advantage over other members."⁹⁷ The IMF bylaws call for "discussion" with any countries that engage in "protracted large-scale intervention in one direction in exchange markets."⁹⁸

China's continuing currency manipulation represents a de facto subsidy to all exports and a tariff on all imports that both lowers global economic welfare and puts China in contravention of the commitments it has made to the global trading system.

Currency manipulation occurs "when a government buys or sells foreign currency to push the exchange rate of its currency away from its equilibrium value or to prevent the exchange rate from moving toward its equilibrium value."⁹⁹ A July 2012 policy brief published by the Peterson Institute for International Economics, "Combating Widespread Currency Manipulation," identifies China as one of the world's 20 "most egregious" currency manipulators over the first decade of this century.¹⁰⁰ Likewise, in a recent report to Congress, the U.S. Treasury Department noted that China maintains a "heavily managed exchange rate regime."¹⁰¹ As Assistant U.S. Trade Representative for Asia and China Robert Cassidy for President Clinton (and principal negotiator for the market access agreement that led to China's accession to the WTO) argued in 2008, "China has adopted an export-led development strategy, the centerpiece of which is a currency that is undervalued by 20 percent to 80 percent, with the consensus leaning toward 40 percent. Thus, China's wages in U.S. dollar terms are 40 percent cheaper than they would be if the currency were allowed to freely float. Similarly, foreign investors receive a 40 percent subsidy to develop operations in China."¹⁰² China's continuing competitive undervaluation represents a de facto subsidy to all exports and a tariff on all imports that both lowers global economic welfare and puts China in contravention of the commitments it has made to the global trading system.¹⁰³

Respecting Intellectual Property

In *China and the WTO*, Panitchpakdi and Clifford were sanguine about the strength of China's commitments to protect foreign intellectual property, noting that "China also promised to make a number of long-term structural changes to limit IPR [intellectual property rights] violations."¹⁰⁴ They noted that joining the WTO would require China to recognize the TRIPS agreement, which provides protections for patents, copyrights, trademarks, service marks, industrial designs, digital content, and other intangible property.

Unfortunately, Chinese IP theft grows unabated. As a recent MIT Sloan Management review article, “Protecting Intellectual Property in China,” noted, “Intellectual property protection is the No. 1 challenge for multinational corporations operating in China.”¹⁰⁵ According to the U.S. International Trade Commission, in 2009, U.S. IP-intensive enterprises conducting business in China reported losses of approximately \$48.2 billion in sales, royalties, or license fees due to Chinese IPR infringement.¹⁰⁶ That figure has continued to increase. Subsequently, *The IP Commission Report on the Theft of U.S. Intellectual Property* found that China accounted for nearly 80 percent of all IP thefts from U.S.-headquartered organizations in 2013, amounting to an estimated \$300 billion in lost business annually.¹⁰⁷ Likewise, a recent European Union-commissioned study found that, among European manufacturers, the loss of IP in China reduces their potential profits by 20 percent annually.¹⁰⁸ Meanwhile, China still has one of the highest rates of unlicensed software usage in the world, with 74 percent of the software in use unlicensed and the market value of unlicensed software usage exceeding \$8.7 billion in 2013.¹⁰⁹ In a recent survey of the China Business Environment conducted by the U.S.-China Business Council, 98 percent of companies surveyed report that IPR enforcement in China remains a concern for them.¹¹⁰

Unfortunately, China’s recent anti-monopoly law has been designed to treat legitimately acquired intellectual property rights as a monopolistic abuse, with Article 55 stating, “This Law is not applicable to undertakings’ conduct in exercise of intellectual property rights pursuant to provisions of laws and administrative regulations relating to intellectual property rights; but this Law is applicable to undertakings’ conduct that eliminates or restricts competition by abusing their intellectual property rights.”¹¹¹ For the Chinese government, “abuse” means charging market-based IP licensing fees to Chinese companies. This provision has been used to take legal action against companies whose only “crime” is to be innovative and hold patents. Indeed, the Chinese law allows compulsory licensing of IP by a “dominant” company that refuses to license its IP if access to it is “essential for others to effectively compete and innovate.”¹¹² And with Chinese courts largely rubber-stamping the government’s dictates, foreign companies have little choice but to comply. All too often, complying means changing their terms of business so that they sell to the Chinese for less and/or transfer even more IP and technology to Chinese-owned companies, often after paying substantial fines.¹¹³ To be clear, this tying of IP to monopoly is unique to China, and is not part of antitrust law in Europe or the United States.

MISCALCULATING THE OUTCOMES AND IMPACT OF CHINA’S WTO MEMBERSHIP

From mischaracterizing the impacts of China’s WTO membership on other nations to its impact on the WTO itself, backers of China’s membership in the WTO have consistently misread the tea leaves. Seeing the prize of access to 1.3 billion consumers dangled in front of them, backers lost the capability to be objective and consistently interpreted every issue and every promise from China in the best possible light.

For example, Panitchpakdi and Clifford audaciously concluded, “Clearly, foreign companies will be among the big winners [from China’s WTO accession] in the Chinese economy.”¹¹⁴ They asserted that the mere fact of China’s participation in the WTO would

China has not only rejected the core assumption of the global trading system—comparative advantage—it has also rejected core trade principles embedded in the WTO.

largely preclude China from embracing protectionist trade policies, arguing, “The fact that an aggrieved foreign company can now petition its government to resolve a dispute of this sort through the WTO’s dispute-resolution procedures may make local governments think twice before slapping on protectionist measures.”¹¹⁵ But, at best, it has been a mixed bag for foreign companies. Certainly many have benefitted from greater access to markets in the world’s most populous society and second-largest economy and from lower production costs for manufactured goods. Yet many companies, particularly those in advanced technology industries, have suffered from China’s extensive use of innovation mercantilist policies, as this report has documented, and in all likelihood will suffer much, much more going forward.

Beyond foreign companies, Panitchpakdi and Clifford also suggested foreign countries would benefit, arguing for example that “Overall, Japan and South Korea stand to benefit handsomely from China’s accession to the WTO.”¹¹⁶ As they explained, “The positive scenario holds that the trade-creating impact of China’s WTO entry will more than offset the costs ... Because China will dramatically increase imports of capital-intensive and other more sophisticated goods as part of the industrial upgrading that will follow WTO entry, the region’s more developed economies such as Korea, Japan, and Taiwan should be big winners. Producers of home appliances, steel, and processed foods will all benefit from a growing, more open China.”¹¹⁷

Some of the countries named in that list might differ with both that assessment and Panitchpakdi and Clifford’s view that “China has shown signs of playing both a larger and more responsible regional and international role.”¹¹⁸ For example, while Panitchpakdi and Clifford cited steel as an example where other Asian nations would benefit from growing export markets to a growing China, in 2014 China’s steelmaking capacity exceeded the steelmaking capacity of the European Union, Japan, Russia, and the United States combined (despite the fact that China has no clear comparative advantage in steelmaking ability), due in no small part to the previously mentioned subsidies to China’s steel industry.¹¹⁹

Japan’s economy has been significantly impacted by China’s entry into the WTO, and its extensive use of innovation mercantilist practices. For example, from 1995 to 2008, Japan’s share of global high-technology exports fell from roughly 18 percent to 8 percent, while China’s share increased from 6 percent to 20 percent.¹²⁰ Meanwhile, from 1997 to 2012, Japan’s share of global value-added in “medium- and high-value” manufacturing industries has fallen from 20.2 to 11.6 percent, and its share in “medium-low value” manufacturing industries has fallen from 19.5 to 9.6 percent, even as China’s share of global value-added in medium- and high-value manufacturing industries has increased from 3.4 percent to 28.2 percent, while its share in medium-low value manufacturing industries has risen from 3.8 percent to 31.1 percent over that timeframe.¹²¹ Certainly, many factors contribute to such trends, but one of the most significant factors is China’s rampant innovation mercantilism.

Of course, the mistake Panitchpakdi and Clifford, among others, made was assuming that China was a “normal” economy that embraced comparative advantage (they would

specialize in cost-based labor-intensive industries while nations like Korea and Japan could increasingly specialize in knowledge-based industries). In fact, China has combined low costs with innovation mercantilist policies to take market share away in higher-value-added, knowledge-based industries.

Lamy argued that “China’s high-growth and strong demand for imports have been a major stabilizing factor in the world economy.”¹²² But China’s entry into the WTO has actually led to destabilizing imbalances in the global trade system, and not just in the case of China’s relationship with its Asian trade partners. The U.S. deficit in trade in goods with China in 2001 stood at \$83 billion; by 2014, the deficit grew to \$343 billion, as Figure 1 shows. In fact, from the beginning of 2002 through the end of July 2015, China accumulated a \$3.3 trillion trade surplus in goods with the United States.¹²³

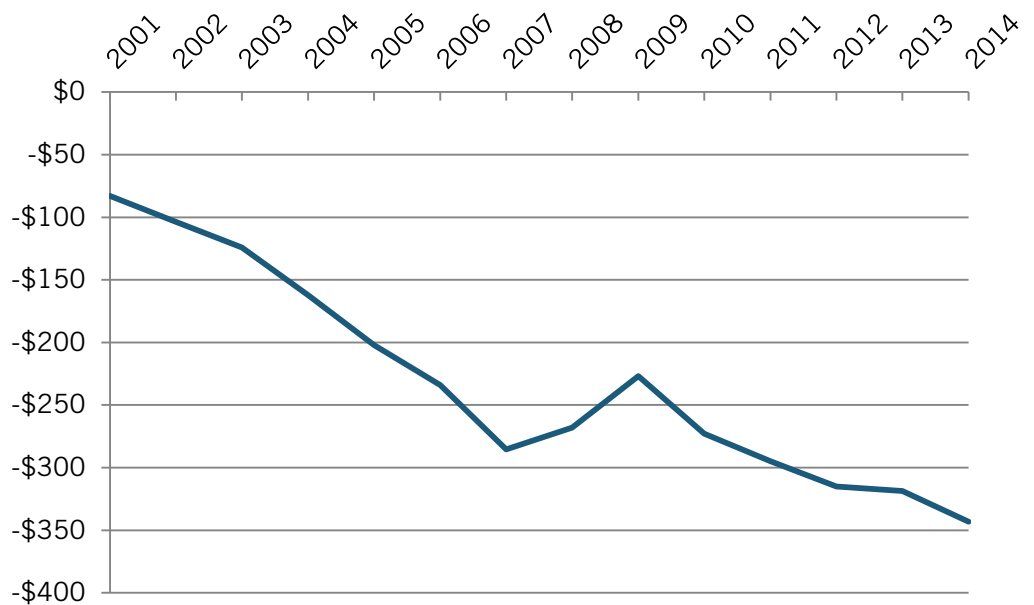


Figure 1: Annual U.S. Deficit in Goods Trade with China, 2001-2014, (\$ billions)¹²⁴

To be sure, some have argued that these statistics do not reflect trade-in-value added, and note that Organization for Economic Cooperation and Development (OECD) research into trade-in-value added data finds that “China’s trade surplus with the United States shrinks by a quarter when calculated according to which countries provide the parts and services that go into its exports and imports.”¹²⁵ Nevertheless, the reality is that China’s stock of foreign currency reserves has grown from \$212 billion in 2001 to \$3.5 trillion by August 2015, and that accumulation of foreign currency reserves has come principally from Chinese trade surpluses with other nations, most notably the United States.¹²⁶ In fact, as of year-end 2014, China’s total reserves (including gold) of \$3.9 trillion were greater than those of Japan, the United States, Russia, Brazil, Korea, India, Germany, France, Italy, the United Kingdom, and Canada combined, as Figure 2 shows.

Moreover, those trade imbalances have generated a significant deleterious impact on U.S. employment. As *Bloomberg* recently noted, “Studies examining the impact of China’s entry

China's entry into the WTO has actually led to quite destabilizing imbalances in the global trade system.

to the World Trade Organization in late 2001 have made the case that between 1 million and more than 2 million of the 5 million American factory jobs lost since 2000 are traceable to low-cost imports.”¹²⁷ As MIT economists David Autor, David Dorn, and Gordon Hanson write about the effect of China’s trade surpluses on U.S. labor markets,

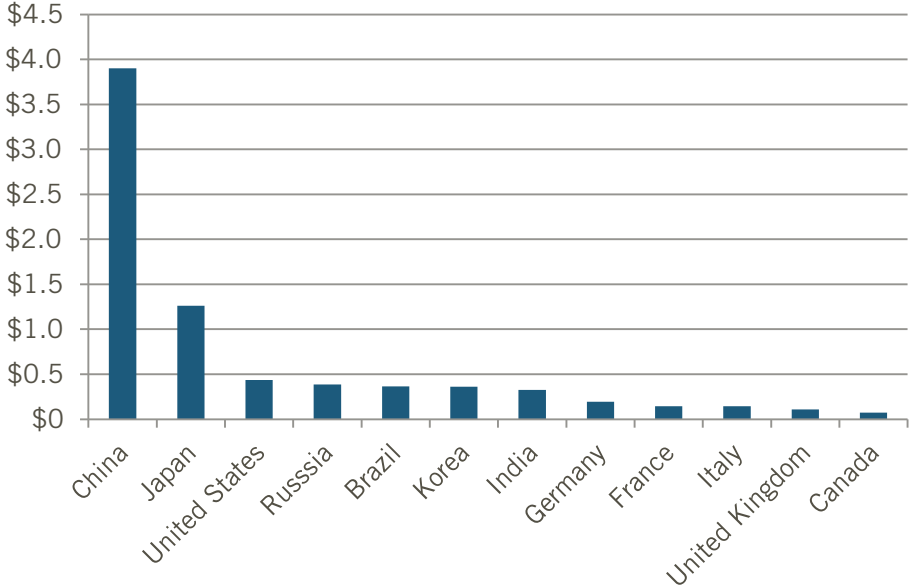


Figure 2: Total Reserves (Including Gold) in \$ Trillions, Select Countries, 2014¹²⁸

“Amplifying China’s potential impact on the U.S. labor market are sizable current account imbalances in the two countries. In the 2000s, China’s average current-account surplus was 5 percent of GDP, a figure equal to the contemporaneous average U.S. current-account deficit.”¹²⁹ The authors estimate that the United States lost 982,000 manufacturing jobs between 2000 and 2007 because of Chinese import competition.¹³⁰ In particular, they find that the U.S. regions most exposed to China tended not only to lose more manufacturing jobs, but also to see overall employment decline.¹³¹ Further, they calculate that the cost to the economy from the increased government payments (e.g., unemployment compensation, worker retraining, etc.) amounts to one- to two-thirds of the consumer welfare gains from trade with China.¹³² Likewise, Robert Scott of the Economic Policy Institute has estimated that the growing U.S. trade deficit with China cost 2.8 million American workers their jobs between 2001 and 2010, with 1.9 million of those jobs lost in manufacturing sectors. The 1.9 million manufacturing jobs eliminated or displaced due to trade with China represent nearly half of all U.S. manufacturing jobs lost or displaced between China’s entry into the WTO in 2001 and 2010.¹³³

Europe’s high-tech industries have been deleteriously impacted as well. Europe’s deficit in trade in goods with China in 2001 stood at \$1.52 billion; by 2014, the deficit grew to \$104 billion, as Figure 3 shows. In fact, from the beginning of 2002 through the end of 2014, Europe accumulated a \$1.2 trillion trade deficit in goods with China.

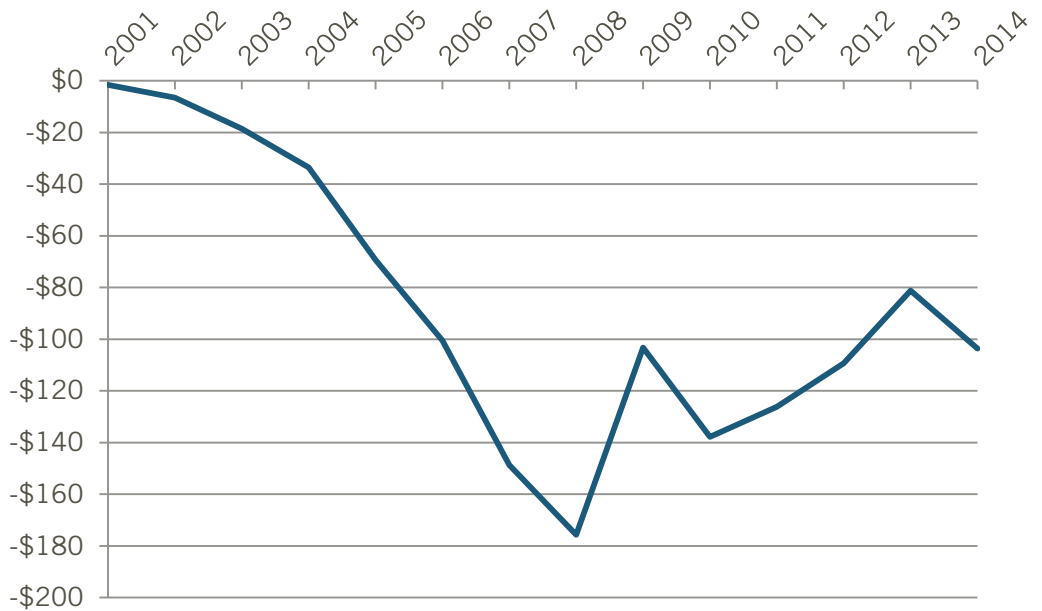


Figure 3: Europe’s Deficit in Merchandise Trade with China, 2001-2014¹³⁴

It’s also worth noting that Chinese performance in global trade in the ICT sector has been strong over the past decade and a half. In fact, in absolute terms, China has generated a cumulative surplus of \$16.5 billion in ICT goods trade from 2001 to 2014, as Figure 4 shows.

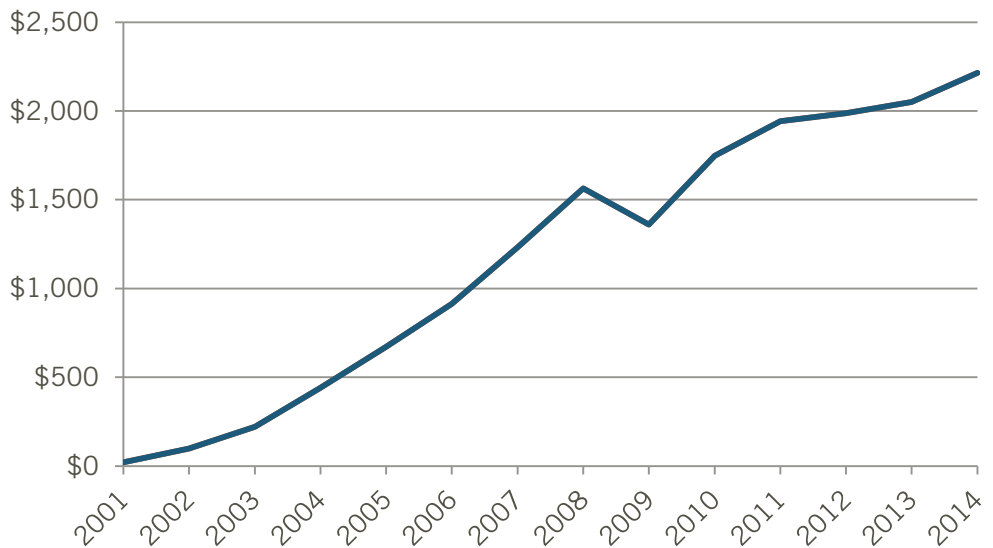


Figure 4: China’s Annual Surplus in Global ICT Goods Trade, 2001-2014 (\$ billions)¹³⁵

The previous figures show that China’s entry into the WTO produced a reality far from the balanced vision of equitable trade envisioned by many. Yet Panitchpakdi and Clifford, among others, were particularly excited about the impact China’s WTO accession would

have on furthering the broader process of global trade liberalization, stating, “Hopefully, China’s entry into the WTO should show more powerfully than any other example the benefits of liberalized trade and development policies.”¹³⁶ They were also hopeful regarding the impact of China’s accession on the institution of the WTO itself. As they wrote, “If China follows through on the private signals it has sent that it intends to play an important role in the WTO, it could have an extremely positive impact on the organization.”¹³⁷ This expectation is critical for the effective functioning of the global trade system, as USTR’s 2006 “U.S.-China Trade Relations Top-to-Bottom Review” noted:

China’s ascendancy as a major international trading partner brings with it certain responsibilities for the maintenance of the multilateral, global trading system. As the size of its market and trade flows have increased, China’s constructive participation is increasingly critical to the international regimes governing trade practices—regimes that foster free and open markets, a level playing field, and transparent regulations.¹³⁸

China’s increasingly overt use of innovation mercantilist tactics threatens both the fabric of the global trading system and the viability of the WTO as an institution itself.

But as one commentator noted, it’s “those two lines that capture what is most troubling about China’s rise as a trading state” ... for China’s leaders don’t seem to adequately “share that perspective on the role that China should play within an international trade regime that affords China manifold benefits.”¹³⁹ Likewise, former U.S. Trade Representative Charlene Barshefsky, who led China’s WTO accession negotiations for the United States, has since noted that China’s embrace of trade-distorting industrial policies, “raises a significant and profound—almost theological—question about the rules as they exist.”¹⁴⁰ In short, China’s increasingly overt use of innovation mercantilist tactics threatens both the fabric of the global trading system and the viability of the WTO as an institution itself. That is why, as ITIF has written, “WTO officials need to wake up and realize that China’s mercantilism constitutes a major threat to global integration. And if the WTO fails to recognize and react to this, it will only lead to more and more isolationism and protectionism, and the cause of free trade and globalization will be undermined.”¹⁴¹ Thus, far from strengthening the WTO and the cause of deeper global integration, China represents an existential threat to both.

MISUNDERSTANDING CHINESE ECONOMIC STRATEGY AND INTENT

In 1989, economist John Williamson coined the term “Washington Consensus” to describe the dominant logic of the prevailing global neoclassical economic and trade framework. His Washington Consensus consisted of 10 staple policy recommendations such as fiscal discipline, openness to trade, liberalization of inward foreign direct investment, privatization of state enterprises, deregulation, legal security for property rights, and redirection of public spending from subsidies to investment, among others.¹⁴² Many persist in thinking that the Washington Consensus represents the only logical and rational prescription for a country to pursue as it seeks economic growth, despite the fact that it is now a deeply flawed model for growth and prosperity that places too many limitations on legitimate government roles to spur innovation and competitiveness.¹⁴³ Nevertheless, many persist in viewing the Washington Consensus as the high religion of economics—the only right and true path—and believe that it is only time before the heretics and unbelievers will be forced to confront the error of their ways and repent.

To capitulate to resigned defeat is to accept the cognitive dissonance that accompanies the fact that China is a part of a WTO which implies a rules-based restraint on innovation mercantilism but which in reality accepts it in most of its forms.

One manifestation of this view is the argument made by some that China is just learning how to be a market economy and needs more time. They argue that China is still a developing country on a learning curve, trying to make things better. As one Chinese official stated to us, “There are still some loopholes in IP laws, but it’s not due to lack of trying. We are still learning.”¹⁴⁴ But it is not really a question of learning. There are a multitude of institutions, including the World Bank and the U.S. government, that have spent considerable time and effort (and in the case of the World Bank, considerable money) helping Chinese officials learn the Washington Consensus approach to development.¹⁴⁵ While it is true that many nations do learn and improve their economic development policies as they develop economically, China has actually become more interventionist in recent years, not less, and shows no signs of movement. As China scholar Dieter Ernst argues, “China’s evolving standards system provides little evidence that convergence to the American system is likely to materialize.”¹⁴⁶ Chinese economists and other scholars study Western economics and policy journals and development policies. Chinese officials know how to make China a market-oriented, rather than mercantilist, economy; they just do not want China to be one. Instead, China stands at the center of an increasingly widespread “Beijing Consensus,” an economic approach that combines elements of state capitalism and innovation mercantilism and which represents a direct challenge to the traditional Western model of capitalism supported by global organizations such as the World Bank, the International Monetary Fund, and the World Trade Organization. The path of “be patient, China will become like us” shows no signs of coming to fruition, at least as long as China remains a one-party state.

If the be patient and wait for them to convert to the true religion approach represents a false path, what else can we do? The other prevailing view can be described as the “harangue and implore” strategy. As it becomes clear that the “patience” strategy is a dead end, haranguing and imploring now appears to be the *de facto* strategy, to the extent the United States has any coherent “strategy” regarding Chinese economic policy. In other words, through a combination of “technical assistance,” informal exchanges between policymakers, and formal institutional cooperation such as the Strategic and Economic Dialogue, U.S. policymakers express their concerns to Chinese policymakers and hope that they will respond. Sometimes they do if the pressure is strong enough and the cost to China not very high, as was the case when Chinese officials modified their Indigenous Innovation Product Catalogue scheme after U.S. and European governments and businesses put their feet down. But most of the time the best that can be achieved is a slight delay in Chinese mercantilist policies as China’s policymakers wait until the heat has died down.

With it becoming increasingly clear that the harangue and implore strategy plays into China’s hands and produces few real results, many appear to be defaulting to a third strategy of “resigned defeat”. According to this view, it is inevitable that China will become the largest economy in the world and as part of that rise will inevitably dominate advanced industry global value chains. Accordingly, the view goes, America and Europe should accept “defeat” and focus on what they can still do economically and what China will let us do (e.g., exports of agricultural goods and other commodities). But capitulating to this approach is to accept the cognitive dissonance that accompanies the fact that China is a

part of a WTO, which implies a rules-based restraint on innovation mercantilism but which in reality accepts it in most of its forms.

1. Be Patient/Wait for Conversion to the Washington Consensus
2. Harangue and Implore
3. Resigned Defeat
4. Global Isolation
5. **Constructive Confrontation**

Figure 5: The Five Choices for Confronting China’s Innovation Mercantilism

It should be clear that the first two strategies will not prevent China from taking significant global market share in advanced technology industries from Europe and the United States. It should also be clear that the third strategy would be an abdication of responsibility for the economic well-being of future generations of Americans and Europeans. That then leaves only two strategies. The first is “global isolation.” According to this view, America and Europe should just turn inward and reduce trade and investment ties with China. If U.S. and EU firms are foolish enough to invest in China and be taken to the cleaners, so to speak, that is their problem. The problem with this approach, of course, is not only that it is virtually impossible to enact, it is also that U.S. and EU advanced technology companies and the U.S. and EU jobs they support are dependent on global markets, and if we cede that market to China, we will be consigning millions of good jobs to the unemployment line.

As a result, the only real choice is “constructive confrontation.” It is confrontation because that is the only tactic that the Chinese respond to. It is constructive because, at the end of the day, the Chinese government demands respect, even when they face opposition.

If the U.S. and European governments do not develop a robust and broad-based constructive confrontation approach vis-à-vis Chinese innovation mercantilism, then the end game is clear: a world where the trade deficit with China will be massive and where the share of U.S. and EU economies comprised of above-average-wage advanced technology industries will be significantly smaller than it is today. That is why a new strategy is needed: constructive confrontation backed with true resolve.

POLICY RECOMMENDATIONS FOR CONSTRUCTIVE CONFRONTATION

The Beijing Consensus represents an extreme form of mercantilism and as such is fundamentally at odds with the principles of an open and rules-based international trading system that China committed to when it elected to join the World Trade Organization in 2001.¹⁴⁷

Countries that join the WTO make a commitment to a trading system, but China has treated the WTO as an exporting system that perversely provides it with immunity from prosecution. It is high time American and European policymakers recognize that China's innovation mercantilism broadly, and goals of replacing foreign-made advanced technology products with Chinese-made ones specifically, is a central component of the country's economic development strategy, and it will not abate unless America and Europe work together to make clear that these policies are unacceptable and have costs and consequences.¹⁴⁸

A Results-Oriented Trade Strategy

A first step is to move toward a results-oriented trade regime. Constructive confrontation depends first and foremost on moving away from a legalistic engagement with China to a results-oriented one. To date trade engagement with China has largely been conducted on terms that can best be described as “whack-a-mole.” The United States and Europe expend resources to identify, respond to, and combat particular instances of Chinese innovation mercantilism (the actual harms from which must also be legally established). And, at least in the United States, government is dependent upon industry cooperation to bring cases; but because U.S. enterprises rightly live in fear of Chinese government retaliation, they are hesitant to assist the U.S. government. For they know that not only will they likely lose any particular case, but that any victory is likely to be Pyrrhic, with later Chinese government retaliation inflicting significantly more pain than was relieved with through a possible victory at the WTO. The original proponents of China's accession to the WTO never imagined such a dynamic.

The only real choice is a strategy of “constructive confrontation,” backed with true resolve, and which emphasizes a results-oriented trade strategy pursued with a whole-of-government approach.

Adding to the stasis is that action against China hinges first and foremost on whether China is technically in violation of international trade law and if governments think they can successfully prosecute the case. But in part because of the fundamental mismatch between the WTO dispute settlement regime and the nature of the new “innovation mercantilism,” coupled with China's masterful ability to go right up the edge of WTO illegality, the current global WTO dispute resolution system will continue to be an anemic tool at best. Addressing the Chinese trade challenge through a whack-a-mole strategy has failed to date as the United States and Europe have won some cases and lost others and failed to take many more cases forward for fear of losing or because of a lack of industry support. And the approach will ultimately be unsuccessful going forward because the Chinese government has shown that it can erect new mercantilist policies faster than the United States and the EU can contest and get them to remove old ones.

As a result, the new strategy needs to be grounded in a results-oriented trade regime. America and Europe should hold China to specific goals. The most important one should be the significant reduction of China's global trade surplus. If China reduced its global current account surplus significantly it would enjoy better relations with the United States and Europe. Many of the individual tensions would lessen and China would benefit from much better relations.

But while reducing China's trade surplus is important, it will not be enough. For China has reduced its trade surplus somewhat at points in the past but yet ratcheted up its unfair

competition in high-value-added, technology-based industries that are vital to America's and Europe's futures. As such, China needs to make and keep commitments related to factors such as lowering levels of piracy and IP theft, abandoning domestic technology standards in favor of global ones, and reducing subsidies to domestic high-tech industries, among other policy reforms.

China needs to commit to procedural goals as well. These should feature the inclusion in China's next five-year plan of a serious commitment to focus on productivity and growth in China's non-traded (i.e., domestic-serving) sectors. This is important because if China's non-traded sector can grow faster, the Chinese government will be less tempted to try to drive growth through exports. Yet China's 12th Five-Year Plan identified seven strategic and emerging industries—1) energy saving and environmental protection; 2) new generation of information technology; 3) biotechnology; 4) high-end equipment manufacturing; 5) “new energy;” 6) new materials; and 7) new energy vehicles—that will receive over \$1.5 trillion of government investment through 2020.¹⁴⁹ (For the United States to match China's commitment to its SEIs on a per-GDP basis, it would have to pass an American Recovery and Reinvestment Act every year for five years and dedicate close to 100 percent of the funds to industry.) Chinese officials intend for these seven SEIs to increase their contribution to Chinese GDP from the 2 percent they contributed in 2008, to 8 percent by 2015, to 15 percent by 2020. Yet even if China achieves this, at best it will generate the equivalent of 14 months of Chinese economic growth.¹⁵⁰ In other words, an across-the-board growth strategy (i.e., increasing productivity across all sectors of China's economy) would be far more robust and sustainable than a strategy focused on growing market share (in both Chinese and global markets) in advanced technology products.

For Europe, this means stepping up to the plate and not playing good cop to the U.S.'s bad cop.

New Strategic Thinking About Confronting Challenges Posed by State Capitalism

The second step involves changing how U.S. and EU governments fundamentally think about trade policy, particularly with regard to the challenge posed by state capitalism. For if the United States and Europe are going to effectively confront the challenge posed by China's state capitalism, it will require both U.S. and European governments (including the European Commission) to adopt a “whole-of-government” approach to implementing a results-oriented trade strategy.

For Europe, this means stepping up to the plate and not playing good cop to the U.S.'s bad cop. The latter only leads to postponement of the day of reckoning for Europe, not a pass. For the United States, this means creating a new Office of Globalization Strategy in the Office of the U.S. Trade Representative that thinks systemically about the design of U.S. trade policy in the context of globalization and U.S. competitiveness. That Office should coordinate with a new National Industrial Intelligence Council stood up within the White House and charged with developing a better process and structure to understand the long-term implications of other nations' economic development strategies, so that the United States can respond more effectively.¹⁵¹ This group would develop a better process and structure to understand the long-term implications of China's economic development strategy on U.S. competitiveness. It would also develop approaches to better leverage intelligence assets to boost the competitiveness of U.S. companies. (This would not represent industrial espionage, but rather sharing public knowledge about the

competitiveness plans of Chinese enterprises/industries.) Moreover, the U.S. government should increase funding to enable English-language translations of every Chinese SEI (strategic and emerging industry) sub-document.

And for governments in both the United States and Europe, the “whole-of-government” strategy means making China’s innovation mercantilism a higher foreign affairs priority than issues such as climate change, human rights, or North Korea. For the Chinese government has learned that it can practice mercantilism largely with impunity, suffering only criticisms from government officials at forums such as the Strategic and Economic Dialogue. Policymakers must recognize that China will not deviate from its innovation mercantilist practices unless the Chinese government realizes that the strategy has costs. This is not principally about free trading and law-abiding nations being patient while the Chinese government realizes the error of its ways. It is about making it clear to them that this kind of behavior is unacceptable.¹⁵²

Specific Administration and Congressional Policy Responses

The third broad step involves a series of Congressional and administration actions to empower U.S. agencies and institutions to contest Chinese technology mercantilism. First, USTR needs a stronger remit to pursue trade enforcement activities, along with additional resources and responsibilities enabling it to focus on trade enforcement as much as trade promotion. Accordingly, the U.S. Congress should pass legislation creating within USTR a chief trade enforcement officer and a trade enforcement working group, institutionalizing within USTR the function of trade enforcement, making it clear that at least one portion of USTR is expected to play the role of the “bad cop.” For example, Senators Debbie Stabenow (D-MI) and Lindsay Graham (R-SC) have introduced S.758, *The Trade Enforcement Act of 2015*, which would toughen trade enforcement by making the Interagency Trade Enforcement Center (ITEC) a permanent center responsible for coordinating the enforcement powers of multiple federal agencies, creating a chief trade enforcement officer to lead the Center, and establishing a chief manufacturing negotiator position at USTR to protect the interests of American manufacturers in trade negotiations.¹⁵³ Additionally, those agencies devoted to engaging with foreign nations on diplomatic, security, and financial concerns (such as the Departments of State, Judiciary, and Treasury) should be relegated to an advisory capacity in the interagency trade process. Too often agencies such as the Departments of Treasury, Justice, and State veto strong action against China either out of ignorance of what China’s real end game is or out of a desire to not rock the boat. Enforcement should be left to those agencies that are equipped to do it best and have the largest stake in a strong and globally competitive U.S. economy, in particular, the Department of Commerce and USTR.¹⁵⁴

Second, Congress should empower multinational companies to resist forced technology transfer better by passing legislation that allows firms to ask the Department of Justice for an exemption to coordinate actions regarding technology transfer and investment in other nations.¹⁵⁵ For this to be more effective, there should be joint U.S.-EU antitrust exemptions so U.S. and EU firms can collaborate in such efforts.

Policymakers must recognize that China will not deviate from its innovation mercantilist practices unless the Chinese government realizes that the strategy has costs.

Third, Congress should, at a minimum, update the charter of the Committee on Foreign Investment in the United States (CFIUS) to address the realities of modern-age state capitalism.¹⁵⁶ Here, Congress should allow reviewers to move beyond solely case-by-case examinations to permit them to assess and gauge systemic threats and examine covered transactions in a broader context. Congress should also amend the charter to provide reviewers more than 30 calendar days to approve transactions or move them to a second-stage investigation. In addition, the CFIUS chair should be transferred from the Treasury Department to the Department of Commerce. Treasury has an important role in tracking investment and other financial flows, but Commerce is better suited to focus on the implications of a given foreign investment on the industrial economy and America's innovation system.

But while CFIUS reform is a minimum, Congress should move beyond the relatively narrow CFIUS process to create a more comprehensive foreign investment review process, just as many other nations, including Australia, Canada, and the United Kingdom, have instituted. Under current law, CFIUS can only restrict investments that could adversely affect the United States' national security. As the civilian industrial base has become an ever-more central part of the defense industrial base, however, the current limitations on CFIUS need to be reexamined and a broader national interest standard established.

To be clear, the goal of any foreign investment review scheme should not be to give in to domestic protectionist interests, but to effectively differentiate between foreign direct investment that operates according to market-driven principles and that which operates according to state-directed, mercantilist principles.¹⁵⁷ For while much inward FDI generates significant national economic benefits, it is a delusion to believe that all of it does. Indeed, there is a difference between "greenfield investments" that result in the opening of new production, R&D, or distribution centers (and the concomitant U.S. jobs those facilities create) and "brownfield investments" such as acquisitions of preexisting U.S. businesses (and sometimes the closure of their U.S. operations to shift them abroad). Unfortunately, acquisitions constituted on average 86 percent of all new foreign investment outlays in the United States from 1992 to 2008, with greenfield investments accounting for just 14 percent.¹⁵⁸ In other words, when a Chinese company, backed and directed by the Chinese government, attempts to buy an American or European technology company with the sole goal of expropriating its intellectual property and moving it (or the company's operations) to China, that is clearly not in the interest of Europe or the United States.

Fourth, the United States and Europe need a new regime to contest China's strict technology licensing laws. Under Chinese contract law and import-export regulations, a foreign licensor into China is obligated to offer an indemnity against infringement to the Chinese licensee. But this legal obligation only attaches to the foreigner licensing the technology; the Chinese licensor has no such obligation. This creates a disequilibrium in cross-licensing. The foreign licensor has to offer something that the Chinese licensee does not, making it almost legally impossible for start-ups to license their technologies in China, because no start-up would want to offer such insurance.

A second provision in Chinese law holds that Chinese recipients of technology licenses are entitled to own the improvements they make on licensed technologies and to sell them in any market. Thus, U.S. firms cannot negotiate to say they will own any improvements, or that such improvements can or cannot be shared, or to stipulate that a license is only for the Chinese market and the licensor cannot export any product that makes improvements to the originally licensed technology. Put simply, U.S. companies are obligated to let Chinese firms own the improvements and to let them export to other markets.

To address this imbalance, the United States and Europe should enact a regime whereby if Chinese entities seek licenses in the United States or the European Union, then the Chinese enterprise must license on the same terms by which foreigners are required to license into China. In other words, such legislation would specifically require the Chinese licensee to offer an indemnity against infringement by the U.S. licensee and stipulate that the U.S. recipient of any technology licenses from Chinese entities are entitled to own the improvements they make and to sell them in any market. Another possible approach: Congress could pass a law requiring that the company whose original technology was improved by the Chinese receives an automatic exclusive license to use that improved Chinese technology in the United States, such that the Chinese entity does not have the right to sell that technology in the United States.

Fifth, the United States and Europe should cut off scientific and other cooperation with China until such time that China's use of technology mercantilist practices abates. Both U.S. and European governments engage in extensive cooperation with China to help share valuable technology in areas such as energy, health, and agriculture. If we are serious about pressuring China to roll back its innovation mercantilism, these kinds of cooperative efforts send exactly the wrong message.

Sixth, American and European governments need to ensure that any future Bilateral Trade and Investment (BIT) treaty with China contains strong and enforceable provisions against forced technology and R&D transfer. In the United States, Congress should make it clear to USTR and the administration that no treaty is preferable to a treaty that does not firmly stop this practice. Congress should also make it clear that it will not judge any administration by whether a BIT with China is concluded, but rather by if the United States made a strong effort to conclude a treaty that provides full protection against mercantilist practices such as the forced transfer of technology or the forced localization of R&D activities.

Seventh, Congress and the administration should adopt many of the recommendations in the IP Commission Report, including stepping up investigation and prosecution of IP theft; imposing severe sanctions against foreign companies that misappropriate American IP, including denying such firms access to the U.S. banking system; and ensuring the quick and comprehensive sequestration of imported goods using stolen or pirated IP.¹⁵⁹

Eighth, given China's continuing use of production and export subsidies, provision of below-market-cost inputs such as financing and access to land, continuing prevalence of state-owned or state-directed enterprises, and state-influenced procurement decision-making of SOEs and "private sector" firms alike (among other factors), the United States

China continues to not behave like a market-based economy, and should not be recognized as such.

should continue to recognize China as a non-market economy, which has particular relevance for the calculation of prices and costs estimated in anti-dumping and countervailing duty cases. The issue pertains to Article 15 of China's Protocol of Accession to the WTO, which allowed WTO members to "disregard Chinese prices and costs in anti-dumping cases and instead base the calculation of dumping margins using external benchmarks."¹⁶⁰ Specifically, Article 15(a)(ii) states, "The importing WTO member may use a methodology that is not based on a strict comparison with domestic prices or costs in China if the producers under investigation cannot clearly show that market conditions prevail."¹⁶¹ Chinese officials have argued that this practice should no longer be permitted after December 2016, pursuant to Article 15(d) of the Protocol, which states, "In any event, the provisions of subparagraph (a)(ii) shall expire 15 years after the date of accession."¹⁶² But, as Hufbauer and Cimino-Isaacs point out, Article 15(a) (which informs article 15(d)) only really disappears "once China has established, under the national law of the importing WTO Member, that it is a market economy."¹⁶³ (They also argue that there need not only be a binary choice between "market" and "non-market" economy.) Regardless, as this report has documented, China continues to not behave like a market-based economy, and should not be recognized as such.

Finally, the United States and Europe need to coordinate better with other like-minded nations in confronting aggressive Chinese mercantilism, starting with successfully completing the trade pacts currently being pursued in the Trans-Pacific Partnership (TPP) in the Asia-Pacific region and the Trans-Atlantic Trade and Investment Partnership (T-TIP) with the European Union. The ultimate end game is to establish stronger trade agreements that deal more effectively with nontariff barriers so that ultimately the WTO can wither away or incorporate these kinds of provisions in it.

CONCLUSION

Panitchpakdi and Clifford opened with this hopeful vision: "With WTO membership, and the entry of China into a rules-based international system, the odds are better that this new power will be one that plays by internationally accepted norms."¹⁶⁴ As they continued, "The centuries-old vision of tapping China's vast market may finally come to fruition ... The important point is that foreigners will have the right to compete in China according to clearly defined rules."¹⁶⁵ Unfortunately, with 20-20 hindsight, it is clear that the Chinese government made commitments it never planned to meet, solely so it could join the WTO and gain needed access to foreign markets while gaining the legal protection against unilateral prosecution that the WTO provides. Indeed, China has become an astute student of the WTO's rules, pushing them to their limits, usually without embracing the core underlying tenets and principles upon which the WTO is based. China's continued use of innovation mercantilist practices poses a serious threat to the global innovation system—not to mention the U.S. and EU economies and the health of their advanced industries. As such U.S. and EU policymakers need to have a clearer understanding of these dynamics, first so that they can respond with better tools, where necessary, and second so they can make a stronger case that China recommit to re-embracing the foundational tenets of an open, rules-based trading system.

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