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Trouble on the High “C’s” – China, Cyber, and the Trading System¹

Robert Fisher²

Commenting on the first great era of globalization, Capt. Alfred Thayer Mahan wrote that “the vast increase in the rapidity of communication has multiplied and strengthened the bonds knitting the interests of nations to one another, till the whole now forms an articulated system, not only of prodigious size and activity, but of an excessive sensitiveness...National nerves are exasperated by the delicacy of financial situations and national resistance to hardship is sapped.”³ Mahan worried over the impact of commercial and economic dependencies that developed as new forms of transportation and communications (e.g. steam-powered shipping, rail, and global cable communications) spurred a growth surge in global trade and finance that, while improving standards of living and enriching nations also created new vulnerabilities as nations became less self-sufficient.

Mahan’s thoughts are as applicable today as they were over a century ago. For the past 70 years, the United States and Europe (later joined by allies in Asia), have pressed to rebuild and extend trade and financial relationships torn apart by World Wars I and II and the Great Depression. A key achievement in those efforts was the creation of the General Agreement on Tariffs and Trade (GATT) and the World Trade Organization (WTO) as the framework governing much of international trade. The GATT (1948), extended via the WTO (1994), established a set of rules to promote free and fair trade (generally based on free market principles of economists

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² Hills & Company, International Consultants. The views expressed are the author’s alone and do not necessarily reflect those of Hills & Company or its clients.

³ Capt. Alfred Thayer Mahan, “Considerations Governing the Disposition of Navies,” in *Retrospect and Prospect, Studies in International Relation Naval and Political*, London, 1902, p. 144 found here: <https://books.google.com/books?id=MvpNAAAAYAAJ&pg=PA137&lpg=PA137&dq=alfred+thayer+mahan+Considerations+governing+the+dispositions+of+navies&source=bl&ots=xvxgFfGdie&sig=qInZPn6DxOTtizgRWZgvAsLVuYA&hl=en&sa=X&ved=0ahUKEwiAp9aIypHaAhVBND8KHSKIByMQ6AEIPjAF#v=onepage&q=alfred%20thayer%20mahan%20Considerations%20governing%20the%20dispositions%20of%20navies&f=false>

like Adam Smith and David Ricardo), a forum for the progressive elimination of trade barriers (first in mining and manufactured goods, but now extended to agriculture, services, and intellectual property, and a mechanism that when created was believed to provide a fairly swift and sure means to enforce trade commitments.

For the first fifty years of the revitalized trading system, it generally was smooth sailing. While there were the inevitable trade disputes, the system functioned well under the overall leadership of the “Quad” countries – the United States, EU, Japan, and Canada. Important trade issues often were first discussed among the Quad, and consensus (or near consensus) was reached before the results were multilateralized out to other GATT/WTO members for review, amendment, and adoption. For many GATT/WTO members, that process worked well, since little was expected from them in terms of ongoing trade liberalization commitments as long as they did not obstruct what the Quad was trying to do.

Under the GATT/WTO, world trade grew substantially, boosting global gross domestic product (GDP). From 1960 to 2000, global GDP grew from US\$1.37 trillion to US\$33.6 trillion (24.5 times).⁴ During that same period, global exports of goods and services spiked from US\$157.1 billion to US\$7.9 trillion (50.2 times).⁵

The single largest economy in this system and its principal driver was the United States. Beyond the wealth creation and economic benefits, at its core, the system leveraged U.S. power. Washington led the system and was the prime mover behind progressive global trade liberalization. And it did so by negotiating with close allies who shared common beliefs in the underlying principles of the trading system and who more or less operated on the same basic market principles as the United States.

But as the 20th Century closed, two new and sometimes mutually reinforcing disrupters emerged whose combined impact raises questions about whether the basic operating principles of the postwar system still are warranted and, if so, how that system might adapt to the challenges posed by these agents.

⁴ <https://data.worldbank.org/indicator/NY.GDP.MKTP.CD> 1960 is the earliest year available in the World Bank data set for these figures.

⁵ <https://data.worldbank.org/indicator/ne.exp.gnfs.cd>

They were China and cyber.

China grew into an increasingly important market, competitor, and supplier in global trade. Cyber⁶ became one of the great levelers for production and trade, fueling expansive growth of supply chain networks, outsourced production and services, and increased trade in cyber hardware and services. And the two interacted, with cyber both helping to fuel China's export-led growth and to become a sector that China determined essential to its future, both economically and strategically, and so set out state-directed plans to achieve dominance in that area, oftentimes through policies that appear unfair or predatory.

China

In December 2001, after 15 years of negotiations, China joined the WTO. In its accession, China made significant commitments to market access, national treatment, IPR protection, transparency, domestic subsidies reduction, among others, to bring its domestic trade and regulatory regime into conformity with its WTO obligations.⁷ There was a hope and expectation that bringing China into the WTO would further the internal reform process within China which, under the leadership at the time, seemed to be moving toward a more market-oriented economy, reducing China's impact as a disruptive non-market force in a market-drive global economy.⁸

China did undertake many reforms consistent with its WTO obligations and swiftly rose in importance as a trading nation. Its share of global merchandise exports soared from 4.3 percent in 2001 to 13.1 percent in 2016 (\$243 billion to \$2.1 trillion)⁹ (See Figure 1). China's merchandise

⁶ For purposes of this paper, "cyber" means information and communications hardware, software and services and all things related to computers and computer networks

⁷ USTR, 2003 REPORT TO CONGRESS ON CHINA'S WTO COMPLIANCE, December 11, 2003, p. 3

⁸ "For China's leadership, these commitments were primarily intended to consolidate and accelerate the market-oriented reforms responsible for lifting 300 million Chinese citizens out of poverty over the past 25 years. China also viewed joining the WTO as a means to ensure its continued access to export markets. In turn, other WTO members envisioned that faithful WTO implementation by China would reduce the ability of non-market forces, including government policies and officials, to intervene in the market to direct or restrain trade flows." *ibid*, p. 3-4

⁹ WTO Statistical Database, <http://stat.wto.org/StatisticalProgram/WSDBViewData.aspx?Language=E>, World and China total merchandise exports and imports, 1960-2016. For reference, China's share of global merchandise exports grew slowly from 1960 (2 percent) to 2000 (3.8 percent).

exports to the United States grew from US\$102.3 billion in 2001 to \$505 billion in 2017, with the trade deficit growing from -\$83.1 billion to -\$375.2 billion over that same period.¹⁰

Figure 1: China World Merchandise Exports and Imports, 1960-2016

To be clear, China's entry into the WTO did not, at least with respect to the United States, eliminate U.S. barriers to trade with China. The United States had already accorded China "normal" (i.e. most-favored-nation) trade status since 1980. China's entry did give it the WTO imprimatur signaling that it had arrived on the global economic stage and helped reassure traders and investors that China's continued access to foreign markets was assured. Its WTO entry also coincided with a rapid takeoff in China's exports and an increasing imbalance between those exports and China's imports, leading to the perception that WTO entry was the launching pad for China's export boom.

Over time it became clear that (1) China was not, at least in U.S. eyes, fully complying with its obligations; (2) market-oriented reforms stalled in key sectors, including those related to

¹⁰ U.S. Department of the Census, <https://www.census.gov/foreign-trade/balance/c5700.html#1985>

high technology and ICT/cyber, and (3) the WTO system could be challenged in its ability to constrain China’s behavior, both for weaknesses in the existing enforcement mechanism and policy coverage gaps in WTO disciplines.

Even more disturbingly, China increasingly was targeting innovative high technology and IP-intensive sectors where the United States has tended to dominate. As USTR noted in its March 2018 Section 301 report on China’s IP and technology transfer practices, “Official publications of the Chinese government and the CCP set out China’s ambitious technology-related industrial policies. These policies are driven in large part by China’s goals of dominating its domestic market and becoming a global leader in a wide range of technologies, especially advanced technologies.”¹¹ Among specific Chinese practices challenged are forced technology transfer (including through ownership restrictions on investment), cyber-theft of IP and sensitive commercial information, discriminatory licensing restrictions, use of outbound investment to target and acquire foreign technology, and other measures, including China’s Cybersecurity Law.

China’s “Made in China 2025 notice, for example, identifies 10 key strategic advanced technology manufacturing industries for development and promotion, including, among others, advanced information technology, robotics and automated machine tools, and new materials.¹² It call for China to achieve 40 percent self-sufficiency by 2020 and 70 percent by 2025 in core components and critical materials in various industries through import substitution with the goal of “becoming a manufacturing superpower that dominates the global market in critical high-tech industries.”¹³ Per USTR, “The “Made in China 2025” Key Area Technology Roadmap (Made in China Roadmap) sets explicit market share targets that are to be filled by Chinese producers both domestically and globally in dozens of high-tech industries.”¹⁴

¹¹ USTR, Findings of the Investigation Into China’s Acts, Policies and Practices Related to Technology Transfer, Intellectual Property and Innovation Under Section 301 of the Trade Act of 1974, March 22, 2018, p. 10.

¹² Other sectors identified include aircraft and aircraft components, maritime vessels and marine engineering equipment, advanced rail equipment, new energy vehicles, electrical generation and transmission equipment, agricultural machinery and equipment, and pharmaceuticals and advanced medical devices.

¹³ Laskai, Lorand, “*Why Does Everyone Hate Made in China 2025?*”, Net Politics blog posting, Council of Foreign relations, March 28, 2018, at <https://www.cfr.org/blog/why-does-everyone-hate-made-china-2025>

¹⁴ USTR, Final Section 301 report, p. 15.

Cyber

Adapting to China's emergence as a global trade power was one challenge for the global trading system and the United States. Compounding it was the simultaneous emergence of ICT/cyber/high-tech as an increasingly important influencer in its own right on trade and investment and as a force multiplier for China.

Prior to the late 1990s, the cyber world was not on the trade agenda. During the last major multilateral trade round – the Uruguay Round concluded in 1994 – words such as “digital” and “e-commerce” do not appear once in the 504 pages of negotiated agreements.

That is not to say the negotiations were totally divorced from cyber. There were negotiations on telecommunications services, but there was no holistic focus on cyber/ICT/high technology and their implications for the trading system.

It was only through the Information Technology Agreement (ITA) that 26 WTO Members agreed in 1996 to eliminate tariffs on many high technology products, such as semiconductors, software, computers, semiconductor manufacturing and testing equipment, and scientific instruments, along with the majority of parts and accessories for these items. According to the WTO, ITA now covers roughly 97 percent of global trade in these IT products.¹⁵

Under ITA liberalization, exports of ITA products more than tripled from 1996 to 2015, growing from \$549 billion to \$1.7 trillion, despite significant price decreases for many of these products.¹⁶ The shift in market shares of leading exporters was significant and almost all to China's advantage. In 1996, the EU and the United States respectively accounted for 31 percent and 20 percent of ITA exports, with China (including Hong Kong) taking 3 percent. By 2015, China's share of the \$1.7 trillion in exports had grown to 33 percent, with the EU at 16 percent and the United States down to 9 percent.¹⁷ (Figure 2)

Figure 2: Share of World Information Technology Merchandise Exports (%)

¹⁵ https://www.wto.org/english/tratop_e/inftec_e/itaintro_e.htm A second round of liberalization on additional products was concluded in 2015, adding 201 products, such as newer generation semiconductors, semiconductor manufacturing equipment, GPS equipment, and certain advanced medical equipment.

¹⁶ WTO, 20 Years of the Information Technology Agreement, p. 25.

¹⁷ Ibid, p. 28.

However, cyber's influence on global trade and investment goes far beyond the hardware flows captured under the ITA agreement. Cyber lowers transaction costs (particularly communications and coordination) allowing firms to take advantage of global wage, skill, and technology differences far more easily than before. It now is possible and profitable to globally and rapidly transfer or change factors of production (other than land) that yield comparative advantage.

Where the immediate postwar trading system and its rules assumed activity based on moving goods from one country to another, the system today is far more complex, involving goods (often intermediate parts and components); services (e.g. telecom, internet, express delivery, etc.); global investment in factories, training, technology and R&D; and cross-border intellectual property (IP) flows, including managerial know-how.

The McKinsey Global Institute estimates that between 2002 and 2012, global knowledge-intensive flows (goods, services, and investment activities that have a high R&D component or

utilize highly skilled labor) increased from \$5 trillion to \$13 trillion.¹⁸ Cross-border e-commerce transactions are estimated to grow from \$300 million in 2016 to \$1 trillion in 2020, involving some 940 million on-line shoppers.¹⁹ Some 12 percent of global goods trade today is conducted via e-commerce.²⁰ The growth in the sheer volume of data being transmitted across borders is staggering. As measured by bandwidth used (terabits per second), cross border data flows grew 45 times from 2005 to 2014 (4.7 terabits per second to 211.3 terabits per second).²¹ McKinsey estimates that cross-border data flows added \$2.8 trillion to global GDP in 2014 (higher than the contribution from goods trade) both from their direct contribution and their impact on trade in goods, investment, and movement of people.²²

Cyber has yielded real benefits to the global economy and the trading system, but it has also introduced significant challenges, as well as gaps that have been exploited, fairly and unfairly.

- At its most basic, cyber forces us to reconsider what *comparative advantage* means in an era where knowledge is key, information can be transmitted anywhere rapidly with minimal costs, and the pace of innovation is increasing. Offshoring and outsourcing present challenges to the United States in both manufacturing and services, and particularly in knowledge and innovation-driven output, areas where the United States traditionally has enjoyed an advantage.
- Cyber technology vastly increases the scope and speed for predatory practices that steal comparative advantage (knowledge, R&D, basic business information), which China has used to its benefit. As USTR notes, “...evidence from U.S. law enforcement and private sources indicates that the Chinese government has used cyber intrusions to serve its strategic economic objectives. Documented incidents of China’s cyber intrusions against U.S. commercial entities align closely with China’s industrial policy objectives. As the global economy has increased its dependence on information systems in recent years, cyber theft became one of China’s preferred methods of collecting commercial information

¹⁸ McKinsey, *Global Flows in a Digital Age*, April 2014, p. 33.

¹⁹ McKinsey, *Digital Globalization: The newer of global flows*, p. 35.

²⁰ *Ibid.*, p. 7.

²¹ *Ibid.*, p. 4.

²² *Ibid.*, p. 75

because of its logistical advantages and plausible deniability.”²³ The trading system to date has not been adept at addressing this challenge.

- The expansion and diffusion of global commerce and production and the emergence of China as a major nexus in these chains creates a mutual dependency that could be used by Beijing to bring pressure to bear on the West or by the United States and other to bring pressure on China. As Olivier Blanchard of the Petersen Institute of International Economics recently tweeted, “Global supply chains and trade wars. You are China and unhappy about the new tariffs. You identify a few Chinese plants crucial to the supply chains of a couple of US firms. You send a hygiene inspector, who finds a rat, and closes the plant for a month. You are done.”²⁴ The same could be said in reverse if recipients of Chinese-made or assembled products begin stopping shipments at their borders. Caught in the middle are third-country suppliers.

The Challenge of Entanglement

Cyber and China mutually reinforced these trends. Cyber has been an important factor in China’s trade growth, both for its direct impact on China’s exports of ICT and high-tech goods and its support infrastructure for global supply chains. It also has opened a new and easier route to predatory practices.

But cyber and China combined have accelerated what may be the greatest challenge for addressing the issues these two factors present. That is the challenge of commercial and economic entanglement. To be clear, that entanglement has led to significant benefits for both sides – increased competition, lower consumer costs, greater transparency and information flow, reduced barriers to entry for SMEs and others, and reduced global poverty, to name but a few. But, as with undersea cables and steam transportation a century ago, it also has created “new vulnerabilities.”

Since 2001, the United States and China have become more interlinked in myriad ways. U.S. companies often have significant revenue exposure in China. Among the most severely

²³ USTR, *Findings*, p. 153

²⁴ <https://twitter.com/ojblanchard1?lang=en> Tweet dated March 21, 2018.

affected are semiconductor firms, with major companies²⁵ having revenue exposure in China ranging from 36-83 percent (2014 figures).²⁶ About 57 percent of U.S. soybean exports (\$12.3 billion) were sold to China in 2017; that amounted to roughly 30 percent of total production.²⁷ The stock of U.S. foreign direct investment in China has grown from \$10.5 billion in 2001 to \$92.5 billion in 2016 (most recent year available).²⁸ And China holds about \$1.25 trillion in U.S. Treasuries, making it the biggest foreign holder of that debt.²⁹

For companies, this entanglement places firms doing significant business or having major investments in China in a predicament. Some will publicly support government action to address serious concerns. Others, even if they have serious troubles, may not wish to raise issues for fear of retaliation. Some will not support U.S. government action because they are not directly affected by predatory practices but nevertheless fear being caught in the cross-fire of a trade war. And still others not only do not want their own business affected but may hope to profit from market openings created if China disfavors certain companies or countries. The domestic debate over the appropriate approach to China on the Section 301 case is but the most recent example of these conflicting positions. And these same considerations can play into the ability of the United States (or another affected party) to garner support from international allies.

At the broadest level, cyber/ICT/innovation is an entanglement itself, where the United States and China are wrestling over competing economic ideologies and their perceived economic futures. The United States has been the traditional leader in these high-tech activities based on the traditional rules of the WTO system and the international economic order. China is the relative newcomer that has identified cyber/ICT/innovation as essential to its development going forward

²⁵ Avago Technologies, Broadcom, Intel, Lam Research, Microchip Technology, Micron Technology, NVIDIA, QUALCOMM, Skyworks Solutions, and Texas Instruments).

²⁶ Quartz, <https://qz.com/853032/these-are-the-us-companies-and-states-that-will-suffer-most-if-us-china-relations-worsen/>

²⁷ U.S. Department of Agriculture, Global Agricultural Trade System (GATS), <https://apps.fas.usda.gov/gats/default.aspx>, and *Crop Values, 2017 Summary*, February 2018, p. 26. <http://usda.mannlib.cornell.edu/usda/current/CropValuSu/CropValuSu-02-23-2018.pdf>

²⁸ USTR, *National Trade Estimate Report on Foreign Trade Barriers*, 2003 and 2018 reports, pages 46 and 91, respectively.

²⁹ Brad W. Setser, *A Few Words on China's Holdings of U.S. Bonds*, Council on Foreign Relations blog post, January 17, 2018. <https://www.cfr.org/blog/few-words-chinas-holdings-us-bonds>

and is doing what it deems necessary, within the confines of a statist system organized to achieve its goals via policies that often appear questionable under WTO rules or inimical to free market principles.

Looking Forward

Does the combination of cyber and China introduce ungovernable instabilities or vulnerabilities that require us to rethink the basic premises of the trading system? Or are there ways to think about addressing existing concerns without starting over so that we accommodate these two change agents while reducing the tensions they individually and together have introduced into the trading system.

In looking at this set of questions, the starting point for this paper is two basic assumptions:

- The postwar trading system, while at times flawed and inefficient, is worth preserving: Thanks to the GATT/WTO framework and disciplines, the world's \$20.2 trillion in exports of goods and commercial services³⁰ (including those impacted by ICT/cyber) generally takes place without great difficulty. For cross border flows where there are no real trade issues, or where the issues fall within the traditional bucket of WTO coverage and concerns (e.g. market access for goods, dumping, subsidies, safeguards, etc.) the system generally works well in providing a common set of rules of the road for engaging in trade relationships. There is no reason to abandon this system or its underlying precepts.
- The trading system has proven it can adapt when needed. For its first 46 years, the GATT largely focused on manufactured goods. There were few attempts to deal with agricultural issues, and none for services and intellectual property. There was no mandatory dispute settlement process. That changed when GATT members updated the GATT and created the WTO, bringing these and other issues under fresh trade disciplines needed to reflect the importance of these new activities to the global economy. Given the political will, it can do the same again to address the digital age. There already are examples in bilateral or plurilateral trade negotiations, such as the Comprehensive and Progressive Transpacific Trade

³⁰ WTO, World Trade Statistical Review, 2017, Tables A-4 and A-8

Partnership³¹ (CPTTP), where governments are incorporating provisions on digital issues and e-commerce.

- China is too important to be left out of the system. For economic, political, and strategic reasons, China should be part of the trading system, not simply as a trading nation but as a WTO member bound by its obligations. Virtually every country already is a WTO member or is in the process of joining.³² While there are genuine questions and challenges to having China in the WTO, the reality is that its importance today is such that it should not be left out. Indeed, its economic power and political importance are such that were it not in the WTO, it could and would seek to create institutions and means of influence over global trade that are more to its liking and where it controls the balance of power. Indeed, through efforts such as the Asian Infrastructure Investment Bank, the Regional Comprehensive Economic Partnership, and its Belt and Road Initiative, China already has shown it can and will pursue its own path.

Within that framework, there is a set of options that should be considered.

- **Trade:** The combination of China and cyber present challenges to which the trading system must adapt. Specifically:
 - Update WTO Rules on Cyber and State-Directed Economic Policies: New WTO rules are needed to update WTO disciplines for the cyber era (e.g. cross border data flows, e-commerce, and data privacy); and to address unfair government economic intervention (e.g., state-owned enterprises, forced technology transfer, cyber-theft of IP, competition policy, etc.). The CPTTP provisions dealing with these issues may provide useful guidance.
 - Strengthen WTO Dispute Settlement and Enhance its Commercial Relevance: WTO dispute settlement should be fixed so that it is timely. There also should be greater incentives for companies to support dispute settlement cases. WTO remedies today are designed to stop current unfair practices and prevent them from reoccurring in the future. They do not look backward and compensate injured parties. Additional remedies might be considered, such as financial compensation

³¹ Formerly the Trans-Pacific Partnership, from which the United States withdrew in January 2017.

³² The Democratic People's Republic of North Korea is one exception.

paid to an injured government that might in turn then be used to directly or indirectly compensate affected producers.

- Restrict Unfairly Developed and Trade Products: Current U.S. law³³ provides for the possibility of cease and desist orders and product exclusions against imports in cases where IP infringement occurs in those imports, or where other unfair methods of competition and actions and unfair acts threaten to substantially injure a U.S. industry, prevents an industry's establishment or restrains or monopolizes trade in the United States. Greater use could be made of this provision by U.S. firms, and U.S. allies might enforce similar bans once issued by an affected jurisdiction.
- Negotiate New Trade Agreements and Update Existing FTAs to Ensure Coverage of Cyber and IT/Innovation-related issues: The United States already has free trade agreements with 20 countries, and these should be updated. More importantly, it should rejoin the Trans-Pacific Partnership (TPP) and pursue other regional trade agreements with the goal of creating the desired rules of trade for cyber and IP/innovative sectors.
- **Investment:** The U.S. government already reviews inward investment for national security concerns. It already reviews exports to ensure that sensitive technology is not sold to adversaries. It would seem to make sense that when U.S. firms invest overseas that when a national security issue might arise that such investment also be reviewed to ensure sensitive technology is not transferred abroad.
- **Resilience:** Cyber-enabled theft of IP and business confidential information, whether from China or other predators, remains a significant cost to business and a threat to the trading system. Global supply chains remain vulnerable to disruption. While governments can and must act to discourage predatory policies, business and government alike can help deter predatory practices (government or private) by reducing weaknesses in their digital ecosystems.
- **Engage and Challenge:** Given global cyber and economic links today, it is unrealistic to think that the United States and its allies should or could reduce engagement in either the

³³ Section 337 of the Tariff Act of 1930, 19 USC §1337.

digital domain or with China. Indeed, the United States derives significant benefits from each in terms of trade, prices, jobs, consumer choice, and economic growth. The United States therefore should remain engaged with China on cyber/IP/innovation issues and continue to press its concerns.

One element of that dialogue should be to remind China that global trade is in part based on *reciprocity*. “The GATT/WTO principle of reciprocity refers to the ideal of mutual changes in trade policy [in which] governments negotiate in GATT/WTO rounds with the stated goal of obtaining mutually advantageous arrangements through reciprocal reductions in tariff bindings.”³⁴ Given the importance of cyber/ICT/high tech to economies around the world, if left unchanged China’s policies invite others to adopt similar approaches.

Beyond dialogue, governments and companies need not accept unfair or predatory treatment when it occurs. Assuming there is a workable dispute settlement mechanism in place, it should be used, as the United States is doing with its WTO case against China’s technology licensing practices, both to determine if there are WTO violations and to establish an appropriate remedy. If there are not applicable WTO disciplines, then the United States and like-minded allies should use available national tools for either redress or to encourage a change in the practices themselves.

Conclusion

“Protection is essentially a defensive measure, and in all struggles, in commerce as in war, it is not defensive action, but offensive...which ultimately wins.”³⁵ Mahan’s analysis remains as correct today as a century ago. A U.S. response that seeks to wall our firms and workers off from the competitive challenges posed by China and cyber is doomed to fail. The United States would both fall farther behind competitively and lose its leadership of the global trading system.

³⁴ Bagwell, Keith and Taiger, Robert W., *The WTO: Theory and Practice*, WTO Staff Working Paper ERSD-2009-11, p. 19.

³⁵ Mahan, *Retrospect and Prospect*, in *Retrospect and Prospect*, p. 18.

As the United States looks to adapt to China and cyber, defense is important, and offense is critical. Defensive measures that seek to limit the impact of cyber or Chinese policies and practices by closing access to the U.S. market may for a time succeed in reducing damage to parts of the U.S. economy. Their focus should be narrowly-tailored to addressing harmful activities that the existing set of international trade rules is ill-equipped to remedy. They are unlikely, however, to address the fundamental issue of sustaining and strengthening the global trading system that cyber has helped to broaden and deepen and on which the most dynamic, leading areas of the U.S. economy now depends.

The United States therefore needs an *offensive*, or *affirmative*, strategy that seeks to shape the system and participant behavior in ways that build on U.S. values and strengths – promoting the free and fair exchange of goods, services and investment; allowing countries to trade on the basis on their comparative advantages and not on artificial strengths garnered through state direction and misdeeds; negotiating agreements that the changing nature of global commercial activity and updating those agreements regularly; enforcing negotiated commitments and, in turn, abiding by its own commitments; developing and strengthening alliances with like-minded partners to set global norms and obligations; and continuing to engage with adversaries so that they have a clear understanding of U.S. positions and the jeopardy they face if the system breaks down.