

**ITIF Comments Regarding Cause of  
Significant Trade Deficits for 2016**

**Submitted to the  
International Trade Administration**

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For too long, holders of the so-called “Washington Consensus” on trade have dismissed America’s trade deficit as a problem. The Information Technology and Innovation Foundation (ITIF)—an independent, nonprofit, and nonpartisan think tank focused on technology policy—disagrees. ITIF commends the Trump administration’s efforts to achieve a deeper understanding of the forces influencing U.S. trade balances with key trading partners and its investigation of policies that can enhance the competitiveness of the U.S. economy.

We appreciate the opportunity to submit comments regarding Executive Order 13786, the Trump administration’s investigation into the significant causes of U.S. trade deficits with certain nations in 2016. As it undertakes this analysis, five key considerations should guide the Trump administration’s thinking:

1. Focus on the overall U.S. trade balance and the health of U.S. traded sectors.
2. Recognize that sustained trade deficits are a concern as they represent debts future generations of Americans must repay.
3. Primary attention should be placed on countries which aggressively use unfair, “innovation mercantilist” trade practices to disrupt market-based trade and disadvantage U.S.-based competitors, not on countries that run trade surpluses largely as a result of legitimate comparative advantage in certain sectors.
4. The investigation’s focus should be strategic, with a particular target on trade impacts on the advanced-technology industries that are the most critical to the U.S. economy, which includes services and intellectual property (IP)-based industries as well.
5. The United States needs a focused trade strategy tied to an overall industrial and competitiveness strategy.

### **1. Focus on the Overall U.S. Trade Balance and the Health of U.S. Traded Sectors**

The market- and rules-based, globally integrated economy which the United States spearheaded the development of in the post-World War II era remains best positioned to maximize innovation, productivity, and ultimately consumer and worker welfare.<sup>1</sup> That system is predicated on the principle of comparative advantage, which holds that all countries have an advantage in some kind of production relative to others and that it is those products (or services) which they should export and use to trade for things for which their comparative advantage is less.<sup>2</sup> The rules-based global economy positions the enterprises (whether large or emerging) that produce and market the most innovative and cost-competitive products and services to compete effectively and efficiently at global scale. This means some countries will enjoy a comparative advantage in certain sectors and run trade surpluses in some categories of goods and services with the United States. That’s a natural outcome of a well-functioning international trade system (although, as noted subsequently, not a natural outcome when certain nations manipulate the global trade system to their advantage). But the point is that the United States shouldn’t seek to have a neutral trade balance with every nation; rather, it should seek to achieve a neutral (or positive ) trade balance overall.

To accomplish that, and for countries to successfully compete in the global economy, nations must have highly competitive traded sectors. Traded sectors comprise those industries and establishments which compete in international marketplaces and whose output is sold at least in part to nonresidents of the nation. America’s

traded sectors include almost all of its manufacturing activity, some services (such as software, Internet, and engineering services), most content (such as music, movies, and video games), and most natural resource sectors (e.g., farming, fishing, mining). Accordingly, the Trump administration's focus should be on the health and competitiveness of America's traded sectors overall, and not only that of America's goods-producing traded sector.

Moreover, the Trump administration's trade deficit investigation should distinguish between cases where certain U.S. traded sectors genuinely aren't competitive enough globally versus when they are being harmed by aggressive unfair foreign trade practices. In traded sectors where American enterprises aren't as globally competitive because they are not as productive and innovative as global competitors (e.g., arguably the U.S. auto manufacturing sector in the 1980s), then policy should help to bolster the domestic industry's competitive capacity (e.g., supporting small- to medium-sized [SME] manufacturers with the Manufacturing Extension Partnership program, helping to boost industry skills, supporting pre-competitive cooperative R&D, etc.). In traded sectors where U.S. companies are globally competitive but are being harmed by predatory foreign mercantilism (e.g., U.S. solar panel manufacturers pushed out by massive Chinese subsidization of its solar panel manufacturers in the 2010s) policy should respond by fiercely contesting unfair foreign trade practices.<sup>3</sup>

## **2. Trade Deficits Are a Concern, And They Aren't Principally a Result of Low Savings Rates**

Sustained, long-term trade deficits signal challenges to the health of a nation's traded sectors. Moreover, long-term trade deficits create debts that must be repaid by future generations of Americans, diminishing their wealth. In this sense, the trade deficit is similar to the federal budget deficit, as both represent a claim on the output of future generations, one going to foreign consumers and the other to government bond holders.<sup>4</sup> In fact, one major reason the Trump administration should be concerned (and rightfully is) with the health of American manufacturing relates to its key role in determining the overall U.S. trade balance—and its economic impact not just on the current generation of Americans, but also on the next one. That's because, over the prior decade, manufacturing accounted for approximately 65 percent of U.S. trade, and thus a weak manufacturing sector has contributed substantially to America's recent large and chronic trade deficits.<sup>5</sup>

Moreover, the massive bill the United States has run up every year by buying more imports than selling exports will have to be paid eventually when foreign nations demand payment in real goods and services, not in Treasury Bills. (In fact, the average annual U.S. trade deficit for each year of the previous decade was \$458 billion, or about \$20,000 per household over the course of the decade.) The implication of the United States' chronic trade deficit is that while America's 330 million consumers can buy their imported DVD players, T-shirts, cars, and oil to drive them cheaply today, the manufacturing base that would produce wealth in the future is being hollowed out. And while some of the effects of a weaker manufacturing base are felt presently by the almost six million manufacturing workers who lost their jobs over the past decade, those effects will be felt most keenly in the future in the form of relatively lower U.S. productivity and a trade debt that future generations will have to pay off by producing more than they consume and exporting the difference.<sup>6</sup> The reality is that the United States will have to significantly boost its traded sector exports to balance its trade in order to avoid passing on unsustainable debts to future generations. So, in essence, the trade deficit represents

a debt that future generations of Americans must pay by consuming less than they produce so net exports can increase.<sup>7</sup>

Despite this, the story most conventional (that is, neoclassical) economists tell is that the trade deficit is a simple accounting function: low U.S. savings requires overseas borrowing, which by definition requires running a trade deficit. Former Bush II economist Greg Mankiw reflected this conventional view when he wrote, “My view is that the trade deficit is not a problem in itself but is a symptom of a problem. The problem is low national saving.”<sup>8</sup> The Council on Competitiveness has agreed, stating, “These threats [e.g., the trade deficit] stem from global financial imbalances rather than from the inability of American companies or American workers to compete in global marketplaces.”<sup>9</sup>

The United States now has among the highest corporate tax rate in the world (and in fact has the highest statutory corporate tax rate of any OECD nation), fails to match many foreign nations in investment in research and development, has a rapidly deteriorating physical infrastructure, and has a relatively anemic export credit system (e.g., Germany invests five times as much and China seven times as much in export credit support as a share of GDP than the United States does); but by definition these factors can have no effect on the ability of business establishments in the United States to thrive in international markets. Because that is, supposedly, determined chiefly by our savings rate. By this definition, there is no traded deficit of any size that can be evidence of competitiveness failure.

But as economist Robert Blecker states, “This identity does not prove causality, and is consistent with other causal stories about the trade deficit.”<sup>10</sup> In other words, what the conventional story fails to recognize is that savings is a function of national competitiveness. If, for example, China stopped manipulating its currency (amongst other egregious mercantilist practices) the U.S. trade deficit would fall and the Chinese would buy less U.S. government debt. The result would be a rise in both U.S. exports and interest rates. And both would spur more savings. Higher interest rates would lead more Americans to save. More exports (and relatively fewer imports) would boost U.S. corporate savings. And more jobs and higher wages through exports would boost individual savings and reduce the budget deficit. (In fact, jobs in exporting firms pay 9.1 percent more than jobs in firms that export less.)<sup>11</sup> Thus, it’s important to recognize that U.S. trade deficits aren’t simply a result of low savings rates, they also reflect a challenge to U.S. competitiveness. And, as noted subsequently, this calls for a U.S. trade strategy fundamentally tied to an overall industrial competitiveness and innovation strategy.

### **3. The Focus of Country-Level Trade Deficit Analysis Should be on The Innovation Mercantilists**

Executive Order 13786 points out 11 nations with which the United States ran some of the most significant goods trade deficits with in 2016.<sup>12</sup> However, these trade deficits aren’t all created equally. There’s an order-of-magnitude difference between America’s \$11 billion trade deficit in goods in 2016 with Canada, its \$13 million goods trade deficit with both Switzerland and Taiwan, and then its \$347 billion goods trade deficit with China in 2016.<sup>13</sup> In fact, trade with China alone accounted for about 50 percent of the total U.S. trade deficit in goods in 2016.<sup>14</sup> Even America’s \$63 billion goods trade deficit with Mexico was less than one-fifth its deficit with China in 2016, despite comparable volumes of trade. Moreover, since 2002, the year after

China entered the World Trade Organization (WTO), the United States has accumulated a goods trade deficit with China of over \$3.5 trillion.

America's large trade deficit with China results substantially from its unremitting (and expanding) mercantilist policies which regularly violate the spirit, and in many cases the letter, of WTO rules. As ITIF has comprehensively documented across a series of reports—including “False Promises: The Yawning Gap Between China's WTO Commitments and Practices,” “Enough Is Enough: Confronting Chinese Innovation Mercantilism,” “Stopping China's Innovation Mercantilism: A Doctrine of Alliance-Based Constructive Confrontation,” and in testimony before the U.S. House Foreign Affairs Subcommittee on “China's Threat to U.S. Advanced Industries”—China has deployed a vast litany of innovation mercantilist practices that seek to unfairly advantage Chinese producers over foreign competitors.<sup>15</sup> China's mercantilist practices include (amongst a range of other policies): acquisition of foreign technology enterprises leveraged by nonmarket, government-backed funds; forced transfer of technology or intellectual property; IP theft; abuse of antitrust/antimonopoly policy; denial or restrictions of foreign firms' access to Chinese markets; development of China-only standards; massive subsidies for Chinese firms; and refusing to allow access to key resources (e.g., rare earth elements) unless companies locate in China.<sup>16</sup> China's unfair trade practices contribute significantly to the gaping U.S.-China trade deficit that has persisted (and worsened) over the past decade and a half.

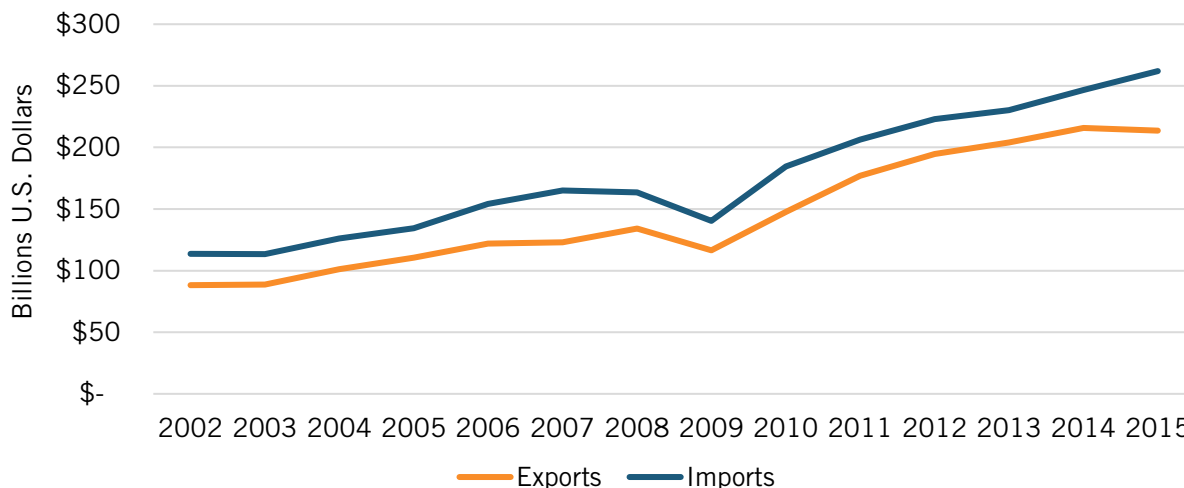
In this vein, it's instructive to contrast America's trade deficit with China from that it has with Mexico as well as the effects trade with these nations has on America's manufacturing sector.<sup>17</sup> Mexico and China are frequently identified as scapegoats for U.S. manufacturing decline. Partially this is because Mexico and China are currently America's top two trading partners, accounting for 15 percent and 17 percent of U.S. global trade volume, respectively. In addition, both have lower labor costs than does the United States, so the perception is that they have an unfair advantage that leads to a “giant sucking sound” of offshored jobs.

However, losing a job to China is much more damaging for the United States than losing a job to Mexico, for three main reasons: 1) The United States and Mexico have conjoined and complementary supply chains in many industries; 2) Mexico generally plays by global trade rules while China willfully ignores (and, indeed, actively exploits gaps in) international trade agreements; and 3) trade with Mexico does not significantly expand the overall U.S. trade deficit. In short, the United States has a bilateral, cooperative relationship with Mexico while suffering from a unilateral, predatory trade schema in China. To elaborate on each of these three points:

First, Mexico's manufacturing sector is deeply integrated with American supply chains and success is shared, with supply chains frequently stretching seamlessly across the U.S.-Mexican border. In this way, the North American Free Trade Agreement (NAFTA) is working as it should. The United States and Mexico form a high-wage/low-wage partnership, bringing complementary labor forces, investments, innovation capacity, and industry strengths together to be able to compete globally. Given its strategic relationships with Mexico, the United States can keep the higher-value-added components of industries, befitting our comparative advantage as a high-wage, innovation-intensive country. For example, 40 percent of the inputs to finished manufactured goods in Mexico come from the United States.<sup>18</sup> By contrast, for China, that figure is a mere 4 percent.

Similarly, the foreign content of gross electronics exports exceeds 50 percent, with a good share of these inputs U.S.-sourced.<sup>19</sup> In essence, unlike trade with Mexico, when production goes to China, the United States loses out on much more of the production process. But, as Figure 1 demonstrates, when imports from Mexico increase, so do U.S. exports as well.

**Figure 1: U.S. Merchandise Trade with Mexico, 2002-2015<sup>20</sup>**



This is why the Reshoring Institute, which actively advocates for companies to bring jobs back to the United States, tracks “nearshoring” as well as “reshoring” activity. Jobs moved from Asia or elsewhere to Mexico (e.g., nearshoring) provide significant value to the United States, as inputs to the manufacturing process (as well as consulting services, R&D, and other higher-value-added work supporting the nearshoring company) are frequently produced by U.S. firms. This North American system allows firms in America to keep down costs in order to better compete in global markets, while the investments in Mexico drive complementary exports from the United States. Thus, Mexico and the United States typify a productive, bilateral free-trade relationship.

Second, Mexico generally follows global rules and guidelines governing fair international trade practices, while China aggressively does not. To be sure, Mexico is not an unassailably perfect trade partner. The United States Trade Representative’s Office placed Mexico on its Watch List in the *2017 Special 301 Report* due to obstacles to U.S. trade in intellectual property-intensive goods and services, including the wide availability of pirated and counterfeit goods via both physical and virtual markets.<sup>21</sup> Mexico imposes local content requirements of 26.1 percent on foreign-enterprise energy exploration and production activities in shallow waters and on land, with this local content requirement increasing to 35 percent by 2025.<sup>22</sup> Mexico continues to impose advertising and broadcasting limits to foreign enterprises on Mexican television. So, to be sure, there are some Mexican trade policies an updated NAFTA agreement could help ameliorate, although much more importantly an enhanced NAFTA would include many of the up-to-date, high-standard trade disciplines negotiated as part of the Trans-Pacific Partnership agreement, such as provisions protecting cross-border data flows, precluding local data storage policies, protecting trade secrets, etc. But the core point here

is that, while Mexico may exemplify episodic and sporadic cases of mercantilistic trade policies (often a result of pressure from domestic political interest groups in Mexico), Mexico is generally playing by the rules of the global trade system and mercantilism does not in any way constitute a guiding principle of the country's trade and economic policies, as has been the case in China.

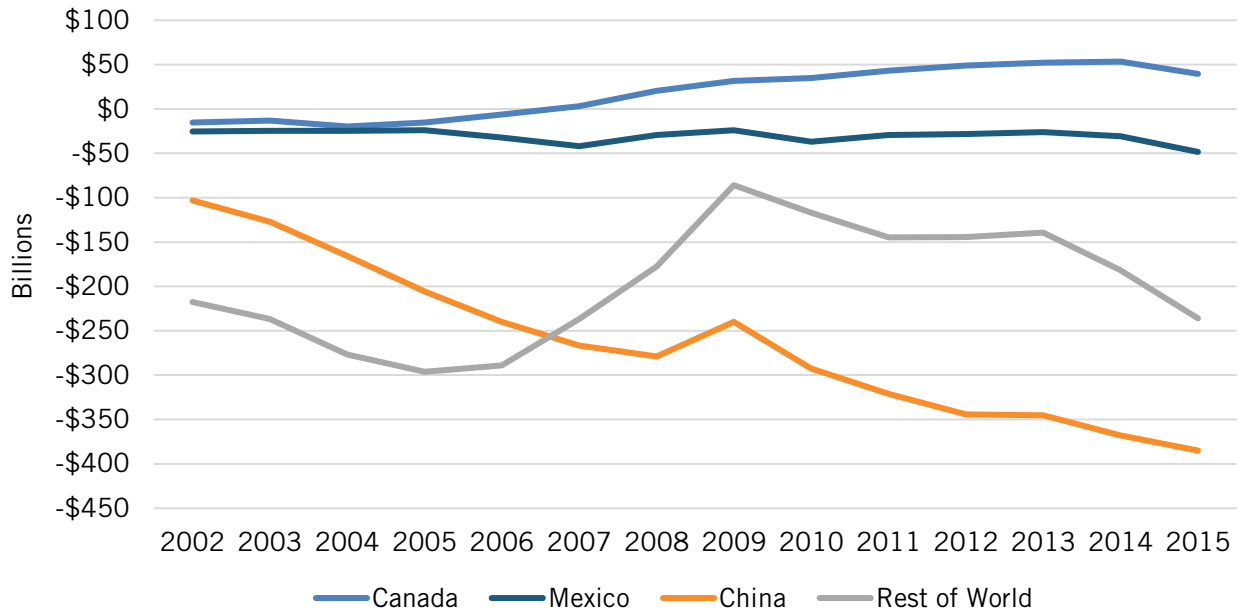
Conversely, the U.S. relationship with China is unilateral: the United States observes free trade rules yet suffers from aggressive, predatory digressions from fair-trade practices on the part of the Chinese. And while some economists believe that unilateral trade (fair trade for the United States, mercantilism for China) is still a positive for the United States, it's clear that an unbalanced, unilateral trade arrangement with a mercantilist nation does significant harm to the U.S. economy across both the short- and the long-term.

Indeed, since its inclusion into the WTO in 2001 (at the beginning of a decade of precipitous decline in U.S. manufacturing employment, which a substantial volume of research shows is more than mere coincidence), China has time after time ignored WTO rules in order to gain an unfair upper hand. MIT's David Autor has examined the effects of Chinese imports to the United States and concluded that they resulted in the loss of 2.4 million manufacturing jobs between 2000 and 2010, about 42 percent of the total jobs lost during that time.<sup>23</sup> Likewise, Robert Scott of the Economic Policy Institute estimates that the growing U.S. trade deficit with China cost 3.4 million American workers their jobs between 2001 and 2015, with nearly three-fourths, or 2.6 million, of those jobs lost in the manufacturing sector.<sup>24</sup> Similarly, ITIF has found that a growing trade deficit was responsible for almost two-thirds of jobs lost in the 2000s (i.e., approximately 3.8 million jobs), with a significant share of this the result of unbalanced trade with China.<sup>25</sup>

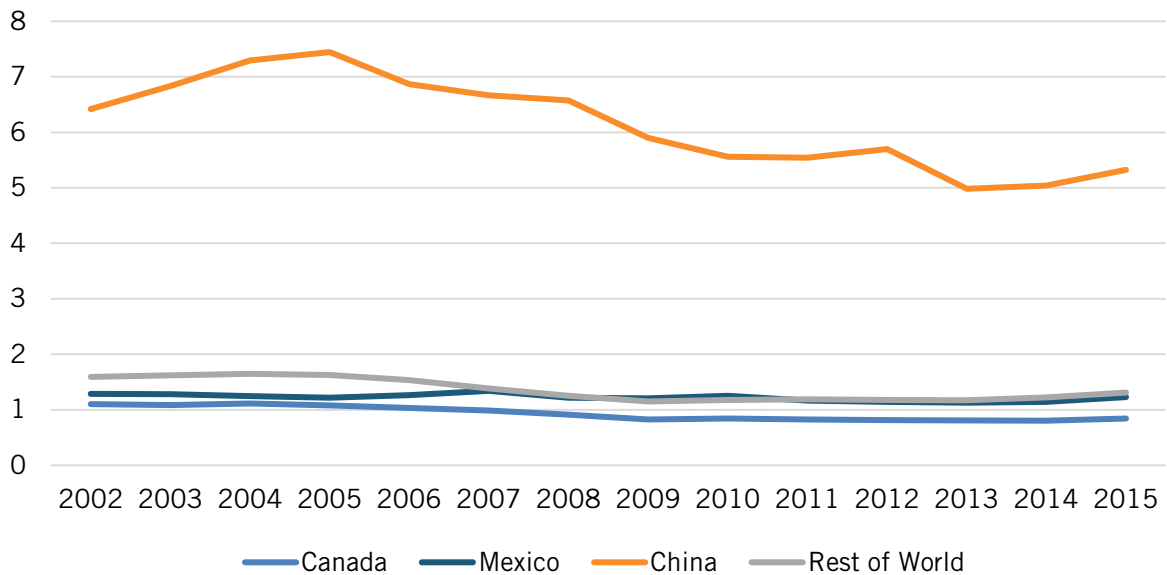
To be sure, not all U.S. job loss due to trade with China since 2001 has been the result of China's mercantilist trade practices—some is reflective of low-cost, labor-intensive industries, such as commodity apparel, where the United States and its workers are no longer cost competitive—and where that type of work sensibly has been performed in low-wage nations such as China.<sup>26</sup> But had China not been running an export-led, government-directed economy, not only would some jobs not have been lost, but these kinds of “natural” losses would have been made up with an equal or even greater increase in higher-value-added exports to China. They were not because China refused to allow that to happen.

Third, trade with Mexico does not contribute significantly to the U.S. trade deficit. While the United States runs goods trade deficits with both nations, its deficit with Mexico is a fraction of its deficit with China (one-fifth in 2016), and has not significantly changed despite U.S. trade with Mexico increasing substantially over the past decade and a half. (The widening trade deficit with Mexico experienced in 2015, as shown in Figure 2, is most likely due to the short-term effect of the rising value of the U.S. dollar.)<sup>27</sup> In contrast, Chinese exports to the United States almost match those of Canada and Mexico put together, even as it imports less than 50 percent of the U.S.-made goods than the United States' NAFTA partners do. Indeed, China regularly ships to the United States four to five times as many goods as China imports from the United States. (Specifically, in the year 2016, China sent \$463 billion worth of goods to the United States and imported just \$116 billion of goods from the United States.) In fact, when the U.S. net merchandise trade balance with Mexico and Canada for 2015 is calculated it shows a deficit of only \$8.9 billion.

**Figure 2: U.S. Merchandise Trade Balances With Canada, China, Mexico, Rest of World, 2002-2015<sup>28</sup>**



**Figure 3: Ratio of Exports to and Imports from the United States, 2002-2015<sup>29</sup>**





Put simply, it's hard to see how the relatively modest Mexican trade surplus with the United States is the result of mercantilist Mexican policies, whereas it's relatively easy to see that this is the case when it comes to the imbalance in U.S.-China trade. In summary, the nature of U.S.-Mexico trade, and of the deficit between those two countries, is palpably different than U.S.-China trade and the U.S.-China trade deficit, and should be recognized as such.

A substantial imbalance between relative levels of goods imports and exports is apparent in other countries that consistently field innovation mercantilist practices. ITIF's 2016 report "Contributors and Detractors: Ranking Countries' Impact on Global Innovation" assessed 56 countries to assess how their economic and trade policies contribute to and detract from innovation globally.<sup>30</sup> The study identifies which countries in the world are making the most extensive use of mercantilist policies such as balkanizing production or consumer markets or manipulating intellectual property for unfair advantage. Many of the countries that ITIF designated as "Innovation Mercantilists" in the report—notably including China, Indonesia, Malaysia, Russia, Thailand, and Vietnam—imported less than 40 percent of the goods they exported to the United States in 2016, in line with China's importing of only 25 percent the value of goods it exported to the United States in 2016. Moreover, several of these countries run quite a substantial goods trade surplus with the United States as a share of their national GDPs. This figure is 17.2 percent for Vietnam, 7.6 percent for Malaysia, and 5.1 percent for Thailand. These are the kinds of nations where more aggressive U.S. trade enforcement is urgently needed. Indeed, if the United States ran balanced trade with these six nations (China, Indonesia, Malaysia, Russia, Thailand, and Vietnam), then the U.S. goods trade deficit in 2016 would have decreased by almost 60 percent.<sup>31</sup>

#### **4. Trade Deficits in Advanced-Technology Industries Matter Most to the U.S. Economy**

Some industries are much more important to the future of the U.S. economy than others. Industries that rely on advanced technology in their products or production processes—such as aerospace, pharmaceuticals and medicines, semiconductors, software publishers, precision instruments, computers and office equipment, and automation equipment—generate more value-added for the U.S. economy, pay higher wages, fund the vast majority of the nation's R&D activity, and create the technological base on which America's economy and security relies. (In fact, a recent Brookings study of America's 35 most-advanced industries finds that they account for 60 percent of U.S. exports, 80 percent of America's engineers and architects, 81.2 percent of patents, and 90 percent of America's conduct of private-sector R&D).<sup>32</sup> As such, foreign mercantilist policies targeting industries that are less important to the U.S. economy (e.g., chicken processing, milk production, lumber, etc.) are far less problematic than policies targeting an industry that is more important (e.g., semiconductors).<sup>33</sup>

Unfortunately, many economists still do not acknowledge the fact that some industries are more important to the U.S. economy than others. As George H.W. Bush's economic advisor Michael Boskin memorably quipped, "Potato chips, computer chips, what's the difference? A hundred dollars of one or a hundred dollars of the other is still a hundred dollars."<sup>34</sup> But there is a difference. If a country loses its computer chip industry to foreign competitors, that value similarly disappears as the industry's supply chains and industrial commons—the R&D know-how, advanced process development, engineering skills, and manufacturing competencies related to a specific technology—are hollowed out.<sup>35</sup> The neoclassical assumption that residual

assets will be redeployed to high-value-added sectors is not necessarily the case. More likely than not, many of the laid-off computer chip workers would end up working in lower-paying sectors, perhaps making “potato chips.”

This matters because there is simply no way to operate a robust, rapidly growing economy without a successful traded sector featuring high-technology, high-value-added industries that succeed in global competition. If America loses its base of advanced industries to foreign competitors, its industrial supply chains and industrial commons will be hollowed out, leaving the country unable to manufacture a wide range of advanced, high-technology products.<sup>36</sup>

That’s because losing in international competitions in knowledge-based industries means losing much more than just the firms and their output.<sup>37</sup> It means losing much of the value from these dispersed assets now represented by unemployed workers and underutilized suppliers. Take the example of advanced aerospace. Today it is a complex technology- and knowledge-based industrial ecosystem. In the United States, it involves original equipment makers (such as Boeing) manufacturing some of the most technologically complex products in history; a network of tens of thousands of specialized parts and component suppliers, including advanced jet engine makers; providers of specialized business services; educational institutions producing skilled workers, knowledge, and discoveries; and testing labs, standards, and other innovation infrastructures, all knit together by a complex system of interactions and relationships among the players. If America’s innovation leadership is lost in this sector, it would be extraordinarily difficult to recreate.

This is why the future of the U.S.-China trade relationship is so important. To put this in context, the contest in the 2000s with China was about low- and mid-tech manufacturing, with Chinese policies hollowing out many sectors of traditional U.S. manufacturing. (Despite this, one reason why so many in the Washington trade establishment have been and remain so sanguine about China’s mercantilism is that they believe it simply accelerated a natural global division of labor, with China specializing in commodity, labor-cost-based production and the United States in advanced, knowledge-based production.) However, over the 2010s and going forward, the contest will revolve around which nation is going to lead in advanced industries. China is seeking to gain global leadership in the very industries of today and tomorrow that enable America to be an advanced economy.

Furthermore, it’s vital to recognize that it’s not just about U.S.-China trade (or exchange with any other trade partner for that matter) being “in balance,” but about U.S.-China trade being balanced, *with* the United States continuing to be a leading producer of high-value-added, high-wage, high-tech advanced technology products. For we could very well envision a world where U.S.-China trade is in balance, but where the structure of both the trade and national economies has radically shifted, with China’s exports and economy shifting to higher-value-added advanced industries, while America’s exports and economy become more commodity- and natural-resource based, with increases in food, fiber, and mineral exports (along with waste paper, our fastest growing export to China, by volume).<sup>38</sup> Indeed, the fastest-growing U.S. exports to China from 2005 to 2015 were vegetables, tobacco, cereals, food residue and waste, beverages, explosives, and mineral fuels.<sup>39</sup> At this rate, America can go back to being an economy made up of “hewers of wood and drawers of water.”<sup>40</sup> In other words, it’s important to recognize that not all trade deficits have the same effect

on the U.S. economy. Trade deficits with countries in which the trade imbalance is hollowing out America's advanced industries, as is the case in the U.S.-China trade relationship, are the ones that matter most and are where policy attention should be focused.

In this regard, there are also key challenges with many nations whose policies work against a robust advanced industry economy in the United States (policies which contribute to U.S. trade deficits with these countries), and not just China. For instance, as ITIF documents in its report "Localization Barriers to Trade: Threat to the Global Innovation Economy," in recent years there has been a growing trend among some U.S. trading partners to impose localization barriers to trade—measures designed to protect, favor, or stimulate domestic industries, service providers, or intellectual property at the expense of imported goods, services or foreign-owned or developed intellectual property. Nations such as Brazil, India, Indonesia, Russia, Vietnam, and others all have policies designed to accelerated forced localization of U.S. production, taking U.S. jobs in the process.<sup>41</sup> For instance, due in part to preferential taxes Brazil imposes as part of its Industrial Product Tax, imported automobiles face a potential 30 percent price disadvantage compared to equivalent vehicles manufactured in Brazil even before import duties are levied.<sup>42</sup> India's National Manufacturing Policy mandates increased use of local content requirements in government procurement in sectors such as information communications technology (ICT) and clean energy, as reflected in India's Preferential Market Access notification, which requires government entities to purchase specified percentages of domestically produced electronic and ICT goods.<sup>43</sup> Indonesia has introduced local content requirements in several sectors, including energy and ICTs, the latter for which it mandates that all 4G LTE-enabled devices contain 30-percent local content and all 4G LTE base stations contain 40-percent local content.<sup>44</sup> Russia has implemented local content requirements, subsidies, price preferences, procurement restrictions, and other policies as part of an explicit import substitution goal of making local production account for at least 50 percent of total domestic pharmaceutical sales by 2020.<sup>45</sup>

But even nations which generally play by the rules have policies that harm America's advanced industries. For instance, a petition before the U.S. International Trade Commission seeks investigation into the allegation that Canada has subsidized production of Canadian airplane manufacturer Bombardier's C Series aircraft and seeks an antidumping and countervailing duty relief order against the sale of those aircraft in the U.S. market on the contention that although the aircraft cost \$33 million to produce, they are being sold at less than \$20 million in the United States and at prices lower than in the Canadian marketplace.<sup>46</sup> This follows a September 2016 WTO ruling that European airplane manufacturer Airbus Group SE has been the beneficiary of billions of dollars in state subsidies and that the European Union has continually failed to cease unfair funding to the company.<sup>47</sup> These types of policies represent a direct threat to one of America's leading export industries (i.e., aerospace) and need to be aggressively contested by the Trump administration. Meanwhile, a variety of non-tariff barriers continue to impede access to Japan's automotive market, and overall sales of U.S.-made vehicles and automotive parts in Japan remain low.<sup>48</sup> Elsewhere, Canada's so-called "promise doctrine" has harmed U.S. biopharmaceutical manufacturers by leading since 2005 to the invalidation of 25 patents underpinning innovative life-sciences drugs, even though similar patents on these same products have been issued and upheld in scores of countries throughout the world. Innovative pharmaceutical companies have suffered over \$1.1 billion in lost sales from such premature termination of patents in Canada.<sup>49</sup> U.S. enterprises have alleged that Korea's Fair Trade Commission (KFTC) has targeted foreign companies with

more aggressive antitrust enforcement efforts, and that the KFTC's procedures and practices have inhibited their ability to defend themselves during KFTC investigatory proceedings.<sup>50</sup> Over the years, the Korean government has also provided significant market-distorting subsidies to its DRAM memory chip industry, including propping up DRAM producer Hynix, which went bankrupt and was saved twice by its creditor banks, which were majority-owned by the government.<sup>51</sup>

However, again, it's important that policy focus on America's traded sectors broadly, and not just on America's goods-producing traded sectors. For instance, increasingly, technological innovation allows more services to be traded. Services that once could be offered exclusively or for the most part only locally (such as retail, travel services, newspaper publishing, radio broadcasting, higher education, banking, and even some health-care services) can now be accessed across borders thanks to information technology.<sup>52</sup> The United States is very competitive in these services-based traded sectors. For instance, in 2016, the United States recorded a \$249 billion trade surplus in services.<sup>53</sup> Over the prior decade (i.e., 2007-2016), services generated a \$1.9 billion trade surplus for the United States.<sup>54</sup> Increasingly, these services sectors (just like an increasing share of manufacturing ones) are IP-intensive. In fact, IP-intensive industries accounted for \$6.6 trillion in value-added in 2014, up more than \$1.5 trillion (30 percent) from \$5.06 trillion in 2010. Accordingly, the share of total U.S. GDP attributable to IP-intensive industries increased from 34.8 percent in 2010 to 38.2 percent in 2014.<sup>55</sup> Consideration of U.S. trade balances with key partner countries such include assessing services as well as goods trade.

But, here again, increases in exports in these sectors is at risk as many nations close or impede access to their services markets to U.S. enterprises, either in a de facto way or through "behind the borders" tactics. ITIF's May 2017 report, "Cross-Border Data Flows: Where Are the Barriers, and What Do They Cost?" identifies 33 foreign nations that have introduced barriers to cross-border data flows.<sup>56</sup> For instance, Vietnam is establishing a national payments gateway that discriminates against foreign electronic payment services—favoring a new local firm called "NAPAS."<sup>57</sup> Vietnam has also introduced forced local data storage requirements for Internet-based, over-the-top content providers and introduced a new network security law that forces companies to disclose encryption keys and source code to the government as a condition of market access.<sup>58</sup> Vietnam's proposed Law on Information Network Security (LONIS) regulations would impose impracticable, near-blanket import-export and business licensing requirements on a wide variety of commercial ICT products containing cryptographic capability, even when encryption or cryptography is not the ICT product's main intent.<sup>59</sup> Similarly, Indonesia has enacted a range of data localization laws covering a broad range of sectors and technologies as part of a persistent attachment to state-directed development and digital protectionism strategies.<sup>60</sup> For instance, in 2016 Indonesia's Ministry of Communications and Informatics issued Regulation 20/2016 on personal data protection that stated that electronic system providers are required to process protected private data only in data centers and disaster recovery centers located in Indonesia.<sup>61</sup> Indonesia's central bank enacted a rule that requires e-money operators to store data locally.<sup>62</sup> Indonesia has also notified over-the-top service companies (such as Whatsapp and Skype) about new regulations, including the requirement to store data locally.<sup>63</sup> India continues to put up roadblocks to U.S. retail services firms competing in the nation. For instance, India requires government approval for retailers selling a single brand of product if foreign ownership exceeds 49 percent, while foreign investments exceeding 51 percent are also contingent on (among other things), a requirement to source at least 30 percent of the

value of products sold from Indian sources, preferably SMEs.<sup>64</sup> India's 2015 National Telecom M2M ("machine to machine") Roadmap requires Indian gateways and application servers that support the Internet of Things to be located inside the country if they service Indian customers.<sup>65</sup>

Finally, better data on global trade flows in advanced technology products is needed. The proliferation of global value chains, through which enterprises can become export-competitive by specializing in specific activities and tasks, has increased, positively, the interconnectedness of economies, facilitating a growing specialization within specific activities and stages of production across the global economy. In fact, today, over 70 percent of global trade occurs in intermediate goods and services which become inputs into final products.<sup>66</sup> By comparison, in 1962, intermediate goods accounted for 30 percent of total trade within the same industry globally; that percentage doubled to 60 percent by 2006.<sup>67</sup> Countries, and the enterprises therein, participating in global value chains increase wages, create employment, innovate more effectively, and increase domestic knowledge and skill levels to a greater extent than countries which do not as actively participate in global value chains. The consequences for countries that don't elect to participate in global value chains are stark: for instance, countries not participating in the Information Technology Agreement, a WTO agreement which eliminates tariffs on hundreds of ICT products, saw their participation in GVCs for the production of ICTs fall by 60 percent from 1995 to 2009.<sup>68</sup> In contrast, as the OECD notes, the emergence of global value chains has benefited all G20 economies, including the United States.<sup>69</sup>

Because such a high percentage of global trade is in intermediate goods, it's also important that policymakers examine how competitive countries are in this trade in tasks, in part by looking at trade-in-value-added (TIVA) data that estimates the sources of value that nations add in producing goods and services. Using this method, America's trade deficit with some nations would narrow. For instance, 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."<sup>70</sup> So it's important that TIVA statistics be investigated with regard to all U.S. bilateral trade relationships, and the Trump administration should continue to work actively with the OECD in developing a global dataset to track this more accurate view of global trade flows. That said, in this particular case, even if a TIVA analysis would credibly cut the U.S. goods trade deficit with China by a quarter, a gross and continuing imbalance in U.S.-China goods trade over the past decade and a half remains which should be the subject of concerted policy attention on the part of the Trump administration.

## **5. America's Trade Strategy Needs to Be Focused and Tied to an Innovation and Competitiveness Strategy**

ITIF commends the Trump administration for undertaking a thorough investigation of the factors causing trade deficits with key U.S. trading partners. It's a good start because documenting other countries' innovation mercantilist trade practices is the first step to taking comprehensive action. However, this needs to be part of a comprehensive, formalized process to rank nations on the extent of their distortive mercantilist policies, as ITIF proposes in its report "The Global Mercantilist Index: A New Approach to Ranking Nations' Trade Policies."<sup>71</sup> The Trump administration should direct the United States Trade Representative's Office to produce a similar report which would both comprehensively catalogue countries' mercantilist trade practices

and (as the *Special 301* report does) rank the countries whose mercantilist policies are most damaging to the U.S. economy, and particularly to its advanced industries.

Yet the United States has limited political capital and limited capacity to prosecute multiple trade cases, either through official WTO means or informally through dialogue. That means the Trump administration will need to focus on the nations that are doing the most to harm U.S. competitiveness—especially in high-value-added, advanced industries and through unfair, innovation mercantilist practices. If another nation is running a trade surplus in commodity products largely through unfair trade practices, it's a concerning problem, but it shouldn't be a top priority. If another nation is running a trade surplus with the United States in advanced industries, but it's a result of genuine, market-based, competitive advantage, then this is a concern, but it should be addressed by a comprehensive domestic competitiveness policy, as ITIF outlined in its report "Fifty Ways to Leave Your Competitiveness Woes Behind: A National Traded Sector Competitiveness Strategy," which outlines competitiveness-enhancing policies related to a range of tax, trade, talent, technology, finance, regulations, and traded-sector analytics issues.<sup>72</sup>

In summary, it's the countries that are deploying innovation mercantilist trade practices (whether they deprive U.S. enterprises of access to or market share in their home markets or harm the interests of U.S. enterprises or their ability to capture market share in third-party markets) that should be the central focus of U.S. trade policy. And this should be the case whether or not such countries run trade surpluses or deficits with the United States. The federal government has limited resources and what resources it does have should be focused on combating those issues of greatest importance to the continued growth of the U.S. economy, namely those affecting advanced technology and high-value added sectors. A combined strategy of aggressive trade enforcement coupled with an effective domestic innovation and competitiveness strategy, as ITIF writes in its "Transition Memo to President-Elect Trump: How to Spur Innovation, Productivity, and Competitiveness," is the best way for the United States to tackle the trade deficits it may have with certain countries.<sup>73</sup>

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