

# U.S.-China Economic and Security Review Commission

Economics and Trade Bulletin



May 4, 2016

## Highlights of This Month's Edition

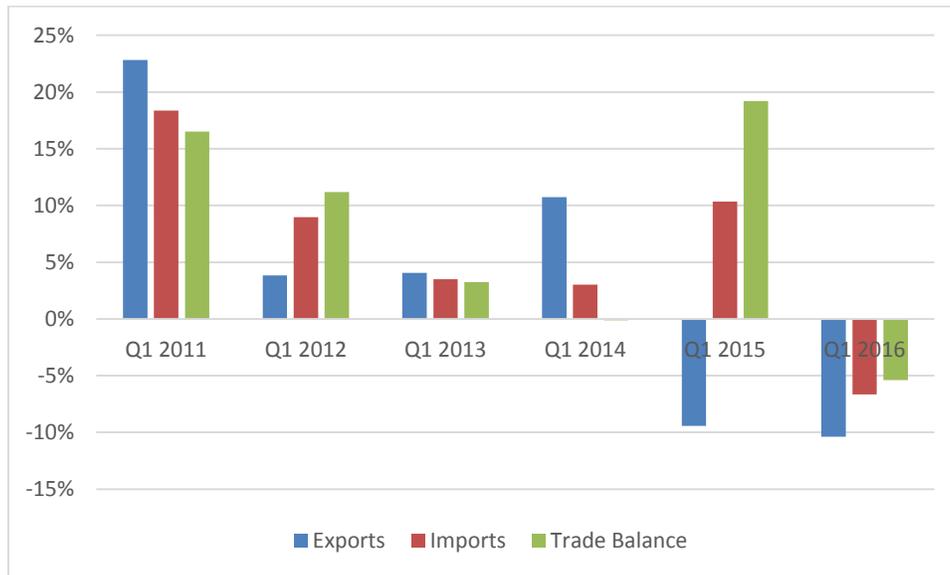
- **Bilateral trade:** Weaker imports cause the U.S. goods deficit with China to fall 5.4 percent year-on-year in the first quarter; Chinese services exports to the United States reach an all-time high of \$4.24 billion, driven largely by increases in U.S. tourism spending.
- **Bilateral policy issues:** The Office of the U.S. Trade Representative labels China's Internet censorship a trade barrier; China ends "Demonstration Bases" export subsidy program after U.S. challenge at the WTO; multilateral effort to rein in overcapacity fails, even as Chinese steel production hits new high; U.S. Steel accuses China of IP theft.
- **Quarterly review of China's economy:** In the first quarter of 2016, the Chinese government again used investment to bolster economic growth, raising questions about the recovery's sustainability.
- **Sector focus – Pork:** A pig shortage in China has led to a dramatic increase in pork prices and sent consumers clamoring for imports, but U.S. exporters continue to face market access restrictions.

## Bilateral Goods Trade

### U.S. Goods Trade Deficit in 2016 Continues to Shrink

In the first quarter of 2016, U.S. goods trade deficit with China fell 5.4 percent year-on-year due to weaker imports (see Figure 1). U.S. imports from China in the first quarter fell 6.7 percent year-on-year—a sharp contrast from the last five years. This drop is driven by a 27.4 percent year-on-year drop in March imports.<sup>1</sup> U.S. exports to China fell 10.4 percent year-on-year in 2016 Q1. Growth in U.S. exports to China is typically sluggish in the first quarter due to the seasonal weak economic growth during the Lunar New Year holiday period in China. In the last two years, China's slowing economic growth has contributed to a year-on-year decline in U.S. export growth. In March, U.S. exports staged a recovery, increasing 11.2 percent month-on-month, but were still down 9.5 percent compared to a year ago.<sup>2</sup> Due to falling imports and exports in the U.S.-China trade, in March, Canada returned as the largest U.S. trading partner, accounting for 15.2 percent of total U.S. trade in the first quarter of 2016, followed by China at 14.9 percent and Mexico at 14.6 percent.<sup>3</sup>

**Figure 1: First Quarter Change in U.S. Exports, Imports, and the Trade Deficit with China, 2011–2016**  
(year-on-year)



*Note:* In 2014, U.S. trade deficit fell 0.1 percent year-on-year.

*Source:* U.S. Census Bureau. (Washington, DC: U.S. Department of Commerce, Foreign Trade Division, May 2016).  
<http://www.census.gov/foreign-trade/balance/c5700.html>.

## U.S. Imports from China Fall

Of the top 20 U.S. imports from China in March 2016, nineteen experienced year-on-year declines greater than 10 percent.<sup>4</sup> Computer and electronic products, accounting for 38.8 percent of total U.S. imports in March 2016, fell 16.8 percent year-on-year (see Table 1). Electric equipment, appliances, and components, the second-most imported product from China, fell 30.3 percent, and machinery, except electrical fell 24.7 percent. The decline in these three imports, which account for over half of total U.S. imports, contributed to the decline in the U.S. trade deficit. On the export side, transportation equipment continued to lead U.S. exports to China but fell 13.5 percent in March 2016 due to falling aerospace exports in the first quarter (see Table 1).<sup>5</sup>

**Table 1: U.S. Trade with China: Top Five Exports and Imports**

(US\$ millions)

U.S. Top-Five Exports to China				U.S. Top-Five Imports from China			
	Exports	Share of total (%)	Change over Mar'15 (%)		Imports	Share of total (%)	Change over Mar'15 (%)
<i>Monthly (Mar'16)</i>				<i>Monthly (Mar'16)</i>			
Transportation Equipment	1,692,086	18.9%	-13.5%	Computer and Electronic Products	11,596,762.55	38.8%	-16.8%
Computer and Electronic Products	1,628,602	18.2%	8.3%	Electrical Equipment, Appliances, and Component	2,508,978.5	8.4%	-30.3%
Chemicals	1,156,762	12.9%	2.3%	Machinery, Except Electrical	2,344,765.6	7.9%	-24.7%
Machinery, Except Electrical	897,448	10.0%	-7.1%	Miscellaneous Manufactured			
Agricultural Products	692,658	7.7%	-35.4%	Commodities	1,975,337.1	6.6%	-30.3%
Other	2,884,728	32.2%	-	Apparel and Accessories	1,429,718.7	4.8%	-37.9%
<b>Total</b>	<b>8,952,284</b>	<b>100.0%</b>		Other	9,997,176	33.5%	-
<b>Total</b>	<b>8,952,284</b>	<b>100.0%</b>		<b>Total</b>	<b>29,852,738.6</b>	<b>100.0%</b>	
<i>Year-to-date (thru Mar'16)</i>				<i>Year-to-date (thru Mar'16)</i>			
Transportation Equipment	4,251,245	16.9%		Computer and Electronic Products	33,810,925	32.8%	
Computer and Electronic Products	4,069,068	16.1%		Electrical Equipment, Appliances, and Component	9,109,781	8.8%	
Agricultural Products	3,694,597	14.7%		Commodities	7,933,079	7.7%	
Chemicals	3,177,373	12.6%		Machinery, Except Electrical	7,463,359	7.2%	
Machinery, Except Electrical	2,104,606	8.3%		Apparel and Accessories	6,667,344	6.5%	
Other	7,916,265	31.4%	-	Other	38,174,716	37.0%	-
<b>Total</b>	<b>25,213,154</b>	<b>100.0%</b>		<b>Total</b>	<b>103,159,204.0</b>	<b>100.0%</b>	

Source: U.S. Census Bureau. (Washington, DC: U.S. Department of Commerce, Foreign Trade Division, May 2016).

## Advanced Technology Products

The U.S. trade deficit with China in advanced technology products (ATP) reached \$24.4 billion in the first quarter of 2016, a \$2.2 billion decline from the same period in 2015 (see Table 2). Imports of information and communication products (ICT) were the main contributor to the deficit, accounting for 89 percent of total ATP imports in the first quarter of 2016. While large, ICT imports fell 11.3 percent year-on-year in the first quarter, contributing to a slowing deficit.

**Table 2: ATP Trade through March 2016**

(US\$ millions)

	Monthly			Cumulative year-to-date			
	Exports	Imports	Balance Mar'16	Exports	Imports	Balance 2016	Balance 2015
<b>TOTAL</b>	<b>2,633</b>	<b>10,701</b>	<b>-8,068</b>	<b>6,447</b>	<b>30,849</b>	<b>-24,402</b>	<b>-26,591</b>
(01) Biotechnology	53	8	45	152	28	124	109
(02) Life Science	353	179	174	792	589	203	139
(03) Opto-Electronics	50	406	-356	106	1,337	-1,231	-1,044
(04) Information & Communications	414	9,585	-9,171	1,237	27,453	-26,216	-29,826
(05) Electronics	598	333	265	1,384	875	509	540
(06) Flexible Manufacturing	429	87	342	737	242	495	456
(07) Advanced Materials	25	31	-6	63	80	-17	-58
(08) Aerospace	695	66	629	1,787	218	1,569	2,953
(09) Weapons	0	6	-6	1	27	-26	-24
(10) Nuclear Technology	15	0	15	187	0	187	166

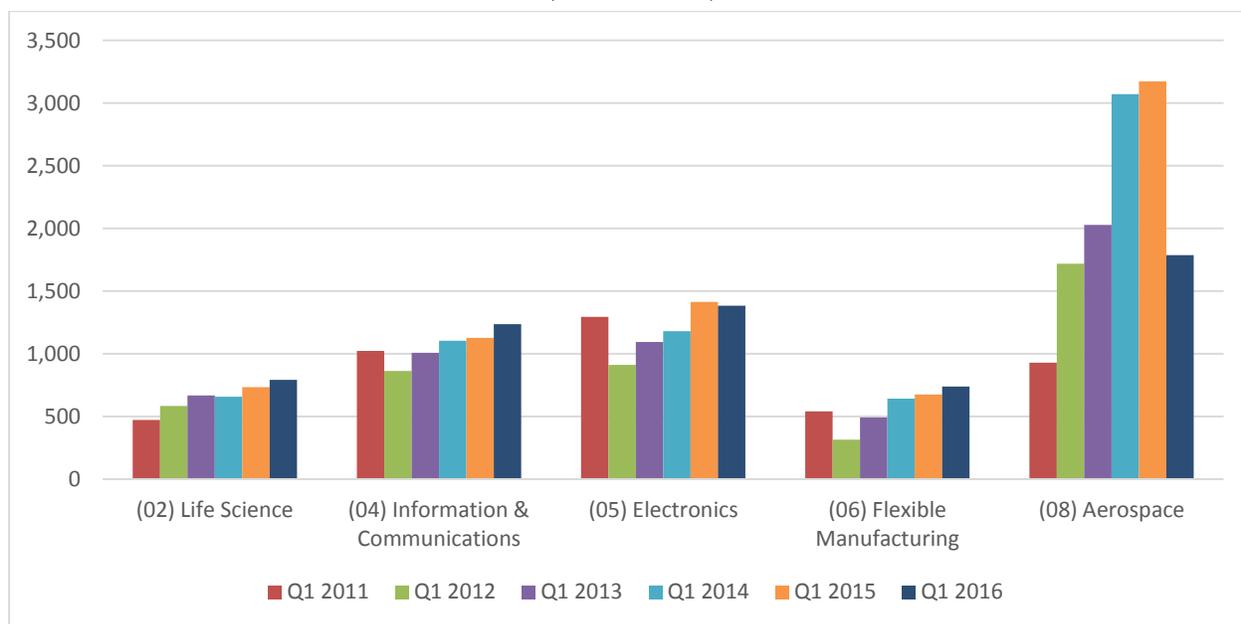
Source: U.S. Census Bureau. (Washington, DC: U.S. Department of Commerce, Foreign Trade Division, May 2016).

<http://www.census.gov/foreign-trade/statistics/product/atp/2015/12/ctryatp/atp5700.html>.

Aerospace exports remain the largest U.S. ATP export sector followed by electronics and ICT. Together these three sectors made up 68.4 percent of total ATP exports in the first quarter of 2016. Aerospace exports to China had been growing since 2011 to reach a high of \$3.2 billion in the first quarter of 2015. But aerospace exports fell 43.7 percent

year-on-year to \$1.8 billion in the first quarter of 2016 (see Figure 2). Electronics exports, which had similarly been growing, plateaued, falling 2.2 percent year-on-year. ICT, life sciences, and flexible manufacturing all continued to grow at 9.9 percent, 8.0 percent, and 9.0 percent respectively.<sup>6</sup> However, these increases were not able to make up for the significant decline in U.S. aerospace exports.

**Figure 2: Five Largest U.S. ATP Exports to China in the First Quarter, 2010–2016**  
(US\$ millions)



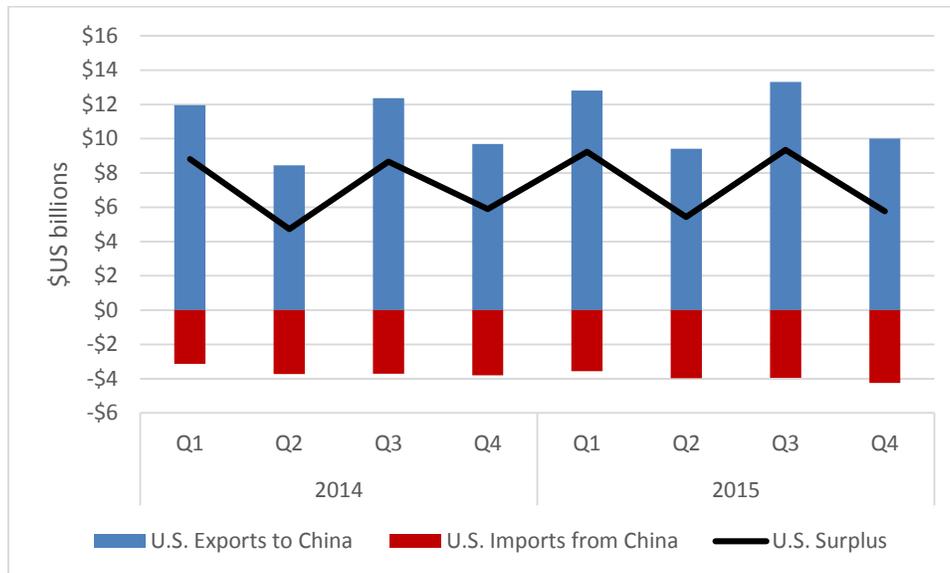
Source: U.S. Census Bureau. (Washington, DC: U.S. Department of Commerce, Foreign Trade Division, May 2016). <http://www.census.gov/foreign-trade/statistics/product/atp/2015/12/ctryatp/atp5700.html>.

## U.S.-China Trade in Services

In the fourth quarter of 2015, Chinese services exports to the United States reached an all-time high of \$4.24 billion, a 7 percent increase from \$3.95 billion in the third quarter of 2015 and an 11 percent increase year-on-year (from \$3.8 billion in the fourth quarter of 2014, see Figure 3). This increase caused the U.S. surplus to decline 2 percent year-on-year (from \$5.89 billion to \$5.76 billion). U.S. services exports dropped 25 percent quarter-on-quarter (from \$13.3 billion to \$10 billion) but increased 3 percent year-on-year (from \$9.7 billion to \$10 billion). Since 2009, U.S. services exports to China have cyclically declined every year from the third quarter to the fourth, driven principally by an increase in travel by Chinese students\* to the United States in the third quarter. Declines in Chinese tourism to the United States accounted for 94 percent of the drop in U.S. services exports to China from the third to fourth quarter in 2015. The increase in Chinese services exports combined with the cyclical decrease in U.S. exports caused a 38 percent quarter-on-quarter decrease of the United States' services trade surplus (from \$9.35 billion to \$5.76 billion).

\* Under U.S. trade statistics, travel exports include tuition payments by foreign students to U.S. universities. These tuition payments increase service exports in the third quarter. In 2013—the most recent year for which data are available—Chinese students spent more than \$8 billion in the United States. National Travel and Tourism Office, *2014 Market Profile: China*. [http://travel.trade.gov/outreachpages/download\\_data\\_table/2014\\_China\\_Market\\_Profile.pdf](http://travel.trade.gov/outreachpages/download_data_table/2014_China_Market_Profile.pdf).

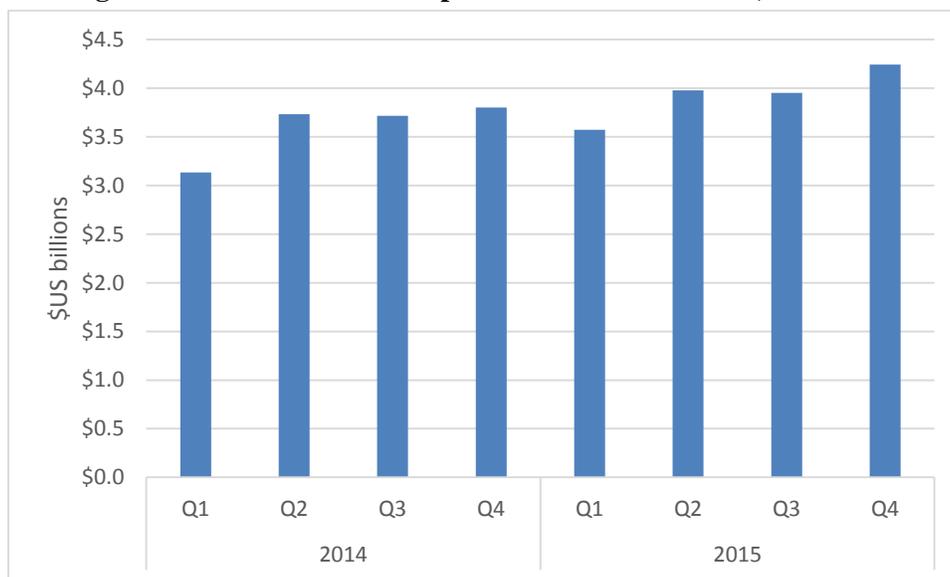
**Figure 3: U.S.-China Trade in Services, 2014–2015**



Source: U.S. Department of Commerce – Bureau of Economic Analysis, *U.S. Trade in Goods and Services by Selected Countries and Areas, 1999-Present*, U.S. Department of Commerce, Foreign Trade Division, April 2016.

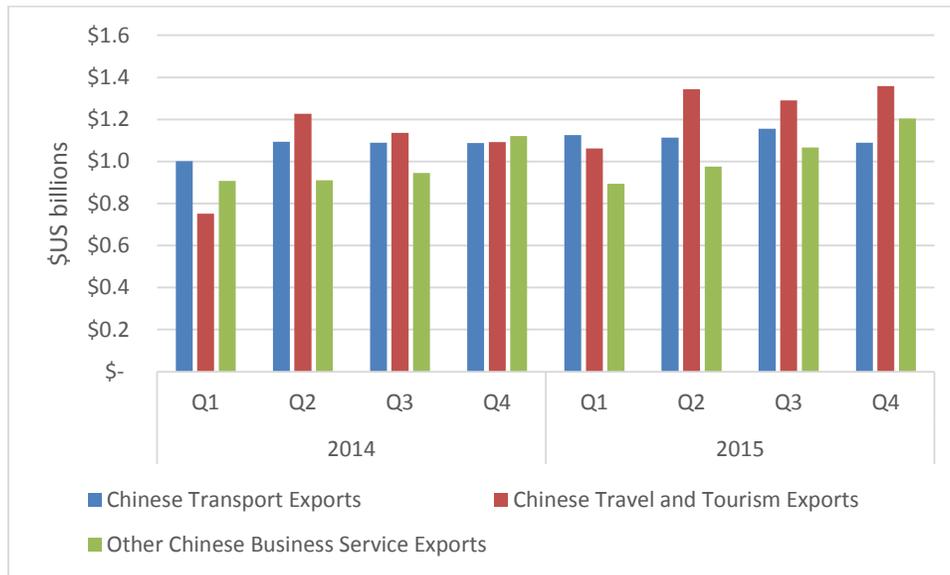
As Figure 4 shows, China’s services exports to the United States have steadily increased over the past two years, from \$3.13 billion in the first quarter of 2014 to \$4.24 billion in the fourth quarter of 2015. China’s services exports consist primarily of transportation services, tourism, and other business services (see Figure 5). Of these, U.S. tourism to China has seen the largest increase, growing from \$751 million in the first quarter of 2014 to \$1.36 billion in the fourth quarter of 2015, an 81 percent increase. According to Chinese statistics, the number of U.S. travelers to China has remained relatively stable at around two million passengers per year, as Figure 6 shows.<sup>7</sup> However, Chinese airlines have dramatically increased their share of U.S.-China flights over the past ten years (see Figure 7), and in 2015 for the first time claimed a greater share of U.S.-China travel than U.S. airlines.<sup>8</sup> As flight purchases fall within tourism exports in U.S. trade statistics, this increased market share could explain the rise in Chinese tourism exports even as U.S. travel to China declined slightly in 2015.

**Figure 4: Chinese Services Exports to the United States, 2014–2015**



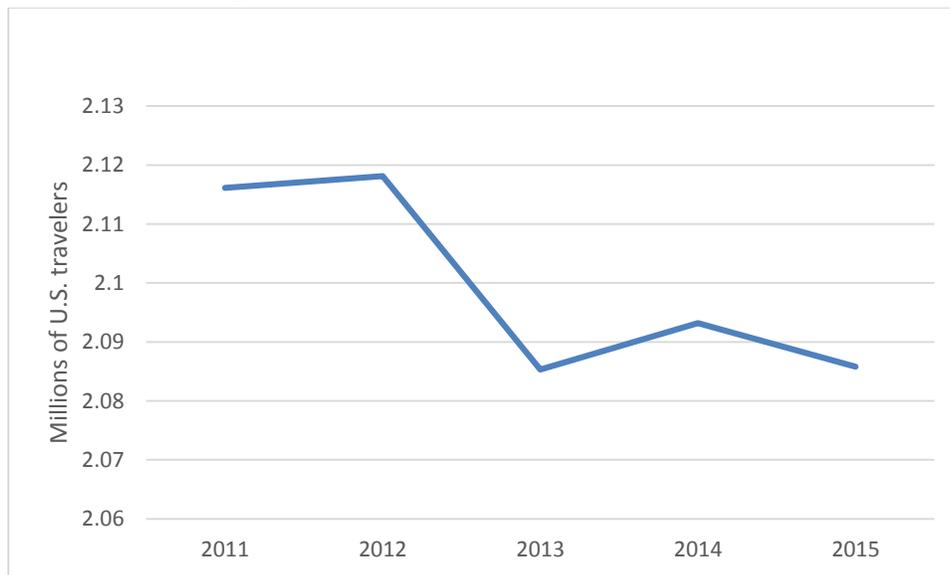
Source: U.S. Department of Commerce – Bureau of Economic Analysis, *U.S. Trade in Goods and Services by Selected Countries and Areas, 1999-Present*, U.S. Department of Commerce, Foreign Trade Division, April 2016.

**Figure 5: Top Chinese Services Exports to the United States, 2014–2015**



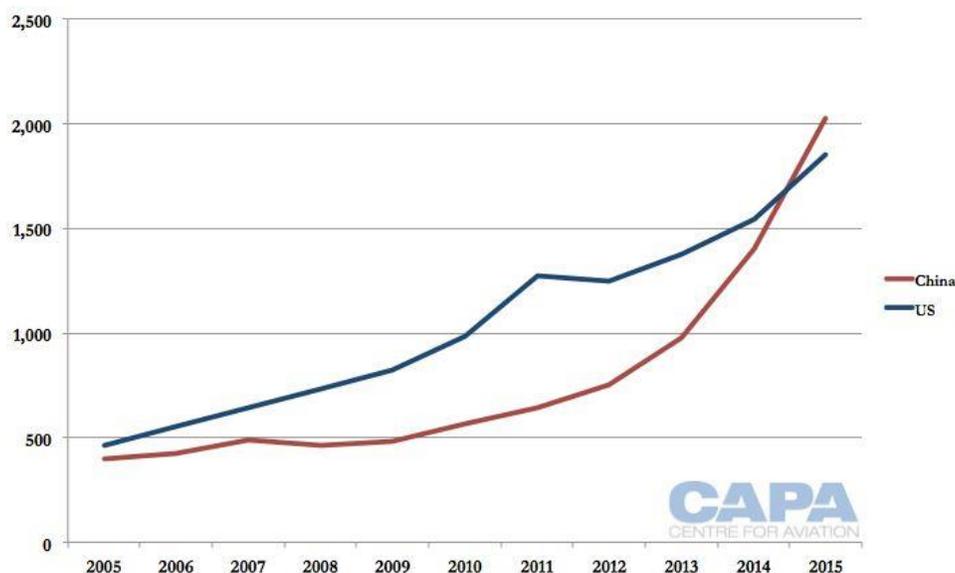
Source: U.S. Department of Commerce – Bureau of Economic Analysis, *U.S. Trade in Goods and Services by Selected Countries and Areas, 1999-Present*, U.S. Department of Commerce, Foreign Trade Division, April 2016.

**Figure 6: U.S. Travelers to China, 2011–2015**



Source: China National Tourism Administration via TravelChinaGuide.com, “China Inbound Tourism,” TravelChinaGuide.com, <https://www.travelchinaguide.com/tourism/2015statistics/inbound.htm>.

**Figure 7: Weekly U.S.-China Flights by Chinese and U.S. Carriers, 2005–2015**



Source: CAPA Center for Aviation, “Chinese Airlines Overtake U.S. Carriers across the Pacific,” May 4, 2015. <http://centreforaviation.com/analysis/chinese-airlines-overtake-us-carriers-across-the-pacific-time-for-us-china-open-skies-222454>.

## Bilateral Policy Issues

### U.S. Trade Representative Labels Chinese Internet Restrictions a Trade Barrier

This April the Office of the U.S. Trade Representative (USTR) listed China’s Internet censorship in its 2016 National Trade Estimate on Foreign Trade Barriers as a “significant burden” on foreign suppliers wishing to do business in China.<sup>9</sup> The USTR noted that China’s Internet restrictions affected both foreign Internet content providers and businesses that rely on Internet services for their operations.<sup>10</sup> While the report did not propose any official actions to address China’s Internet restrictions, it did contain stronger language describing Chinese Internet barriers than earlier reports. It also explicitly described China’s censorship as a trade barrier—previous reports characterized China’s Internet regime as being merely “restrictive and non-transparent.”<sup>11</sup> The report also stated that China’s restrictions appear “to have worsened over the past year, with eight of the top 25 most trafficked global sites now blocked in China.”<sup>12</sup>

U.S. businesses have consistently cited Chinese Internet censorship as a challenge to doing business in China. In 2016, 79 percent of the American Chamber of Commerce in China’s member companies reported that China’s censorship negatively impacts their ability to conduct business in China.<sup>13</sup> In 2015, 83 percent of these companies reported being negatively affected by censorship.<sup>14</sup> A majority of affected companies stated that Chinese censorship inhibits their ability to conduct research, share data, use useful online tools, and access non-Chinese websites in a timely fashion.<sup>15</sup> Beyond these indirect effects, many of the most successful U.S. Internet companies are blocked in China. YouTube, Facebook, and Twitter—the three most trafficked websites in the world—are all blocked in China, and many U.S. media sources, such as the *New York Times*, are also restricted.<sup>16</sup> Overall, according to censorship watchdog GreatFire (Greatfire.org), nearly a quarter of the online material it monitors was blocked by Chinese regulators as of April 2016.<sup>17</sup> GreatFire currently monitors more than 260,000 websites, 50,000 Google and Weibo searches, and 18,000 IP addresses for Chinese censorship.<sup>18</sup> As Table 3 shows, a significant share of this content is currently blocked by Chinese authorities. The number of restricted sites appears to have increased since President Xi Jinping took office—when Xi assumed the presidency, roughly 14 percent of GreatFire’s monitored content was restricted in China, compared to the roughly 25 percent restriction of GreatFire-monitored content seen today.<sup>19</sup> China’s online censorship apparatus—known as the Great Firewall—is regarded as the most extensive in the world, and a 2015 ranking by Freedom House found China to be the worst abuser of Internet freedom in the world.<sup>20</sup>

**Table 3: Online Content Currently Blocked in China**

	<b>Total Monitored by GreatFire.org</b>	<b>Of Which Blocked by Chinese Government</b>	<b>Share Blocked by Chinese Government</b>
<i>Websites</i>	262,020	54,185	21%
<i>Google Searches</i>	20,590	8,376	41%
<i>Weibo Searches</i>	28,663	3,005	10%
<i>IP Addresses</i>	18,567	7,650	41%

Source: GreatFire.org, “Online Censorship in China.” <https://en.greatfire.org/analyzer>.

Estimating the revenue U.S. companies lose from Chinese censorship is difficult. Many U.S. companies decline to publicly disclose their losses associated with Chinese Internet restrictions. Google, Dropbox, Snapchat, and several other companies that are routinely blocked in China chose not to discuss costs from Chinese restrictions during a press investigation last year.<sup>21</sup> However, given the growing size of China’s Internet population—668 million online users as of 2015—these losses are likely significant.<sup>22</sup> The *New York Times* disclosed that it lost \$3 million in the first year after it was blocked by Chinese authorities after reporting on the wealth of China’s then prime minister Wen Jiabao’s family.<sup>23</sup>

Google has frequently seen its services blocked or slowed by Chinese regulators. In 2014, the company made an estimated \$1 billion in advertising revenue in China—largely from Chinese companies that place ads to attract foreign buyers.<sup>24</sup> If Google had the same share of China’s advertising market before its search engine was restricted in 2010—roughly 36 percent—the company likely would have made \$3.5 billion from Chinese advertising in 2014, almost 5 percent of its total revenue.<sup>25</sup> Additionally, Google does not receive revenue from its app store Google Play or Google-owned YouTube, both of which are blocked in China.<sup>26</sup> The way in which Chinese authorities block U.S. websites may also damage these sites’ reputations among Chinese Internet users. For example, while access to Google’s services is largely blocked, Chinese authorities purportedly allow a small percentage of Chinese traffic to Google to go through every day. This small window of access can create the false impression that the difficulty Chinese users experience accessing Google is due to poorly run Google servers as opposed to government restriction.<sup>27</sup>

In response to the USTR report, the Chinese government denied that its Internet restrictions discriminate against foreign companies. The Cyberspace Administration of China said that “the aim of the Internet security inspection system is to guarantee the security and controllability of information technology products ... China scrupulously abides by the World Trade Organization principles and its accession protocols, protects foreign enterprises’ lawful interests, and creates a fair market environment for them.”<sup>28</sup> While in the past Chinese officials have been reluctant to admit to blocking foreign content—in 2014 China’s Minister of Cyberspace Administration claimed the Chinese government has “never shut down any sites”—the state-run newspaper *Global Times* published an article in response to the USTR report that acknowledged that foreign media sites such as the *New York Times* and the *Economist* are blocked, and praised China’s censorship apparatus as a technically sophisticated system that keeps out “harmful” ideological content.<sup>29</sup>

The USTR’s determination comes at a time of rising censorship and tightening restrictions on freedom of information in China. Most recently, China has sought to control the activities of foreign nongovernment organizations (NGOs) through a newly passed NGO law.<sup>30</sup> The law gives Chinese authorities broad powers to close NGOs, requires foreign NGOs to register with the Chinese government, and empowers Chinese police to search a foreign NGO’s finances and operations at any time.<sup>31</sup>

## **China Ends “Demonstration Bases” Export Subsidy Program after U.S. Challenge**

China has agreed to end a controversial export subsidy program a year after the United States challenged the practice for violating World Trade Organization (WTO) rules.<sup>32</sup> The program provided around \$1 billion in sub-central government subsidies to a range of Chinese exports, such as textiles, light industry products (including clothes, shoes, furniture, and consumer electronics), specialty chemicals, medical products, hardware, agriculture, and

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metals, including specialty steel and aluminum products.<sup>33</sup> On April 14, China signed a memorandum of understanding (MOU) agreeing to defund the program, remove the preferential service agreements providing free or discounted services to subsidized industries, and eliminate export-contingent cash grant measures from local governments.<sup>34</sup> The USTR hailed the MOU as “a win for Americans ... who will benefit from a more level playing field on which to compete.”<sup>35</sup> Since 2009, the United States has brought 20 enforcement cases at the WTO—the most of any WTO member country—11 of them against China for violating its international trade obligations.<sup>36</sup>

The subsidies in question were provided through China’s “Demonstration Bases” program, which supported exporters in seven economic sectors and dozens of subsectors in more than 179 industrial centers.<sup>37</sup> Under the program, the Chinese government provided enterprises with subsidies contingent on meeting certain performance targets, and then provided grants or discounted services to those enterprises through designated suppliers known as “common service platforms.”<sup>38</sup> As a result, products from demonstration bases were cheaper and more competitive in export markets.<sup>39</sup> In 2012, for example, 16 demonstration bases in the textile sector accounted for 14 percent of China’s total textile exports.<sup>40</sup>

The subsidy program was discovered as part of a different WTO dispute the United States raised with China in 2012 regarding unfair auto parts subsidies.<sup>41</sup> While China eliminated the auto parts subsidy program, the investigation revealed the network of demonstration bases and illegal export subsidies.<sup>42</sup> The United States challenged the program at the WTO in February 2015, citing concerns that “China’s actions [were] damaging [the] international marketplace, undercutting American businesses, and hurting workers in communities across [the] country.”<sup>43</sup>

For some U.S. industries, however, the MOU may not be comprehensive enough to maintain free and fair trade in international markets. The steel industry, for example, remains wary of the Chinese government’s claims, anticipating Chinese steel companies will receive additional forms of support—like cheap and easy credit from state banks, state-regulated power prices that favor industry, and low prices for other inputs such as water—that continue to put U.S. firms at a disadvantage.<sup>44</sup> The president and chief executive of U.S. Steel Corp, Mario Longhi, remains wary of China’s promise to terminate steel subsidy programs, saying, “We need to see the proof in actions, not just in verbiage.”<sup>45</sup>

## U.S. Steel Firms Fight China’s Overcapacity

The outlooks for the global steel industry remains bleak. Global production capacity continues to increase while global demand weakens.<sup>46</sup> Steel capacity utilization dropped from 70.9 percent in 2014 to 67.5 percent in 2015.<sup>47</sup> While this figure recovered slightly to 70.5 percent in March 2016, it remains far below the minimum break-even point\* of 80 percent.<sup>48</sup> Though overcapacity is a global issue, China accounts for most of the excess capacity—unsurprising given its rapid rise to become the world’s largest steel producer in the span of a decade.<sup>49</sup> EUROFER, a European steel industry association, estimates China’s excess production—or the amount in excess of domestic demand—is 340 million metric tons.<sup>50</sup> Global overcapacity has caused “significant shifts in trade flows, large numbers of job losses, reduced economic viability, and harmful impacts on the environment,” according to the Organisation for Economic Co-Operation and Development (OECD).<sup>51</sup> The scale of the crisis led the OECD Steel Committee to call for “immediate action to address the excess capacity challenge and its effects in the steel sector.”<sup>52</sup>

In 2015, China’s steel production contracted for the first time in 34 years, and Chinese steel demand experienced the first decline in nearly 15 years as the real estate sector faced significant inventory overhang.<sup>53</sup> In January 2016, China’s State Council announced efforts to cut 100–150 million tons of crude steel production over the next five years.<sup>54</sup> In February 2016, Yin Weimin, minister of Human Resources and Social Security, announced a reallocation of 500,000 steelworkers from the steel sector and the creation of a renminbi (RMB) 100 billion (\$15.3 billion) two-year fund to resettle 1.8 million laid-off coal workers and steelworkers.<sup>55</sup> These announcements were welcomed as positive steps toward addressing global overcapacity. But in March 2016, China’s crude steel production jumped

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\* A rate above 90 percent denotes a capacity shortage, while a rate below 80 percent harms steel firms’ profitability. Biliang Hu and Jian Zhuang, “Knowledge Work on Excess Capacity in the People’s Republic of China,” *Asian Development Bank*, July 2015, 4; Mark O’Hara, “Must-Know: Why China’s Slowdown Impacts Steel Prices,” *Market Realist*, September 16, 2014. <http://marketrealist.com/2014/09/overview-chinese-slowdown-steel-prices/>.

20.7 percent month-on-month from 58.5 million metric tons to 70.7 million metric tons, just as domestic steel demand is expected to fall 4 percent in 2016 and 3 percent in 2017.<sup>56</sup>

U.S. steel firms Nucor Corporation and U.S. Steel, respectively the world's thirteenth- and fifteenth-largest steel firms in 2014, are struggling to maintain profitability and employment due to global excess capacity, rising imports, and a strong U.S. dollar.<sup>57</sup> U.S. Steel posted annual losses in six of the past seven years, and in the first quarter of 2016 reported a net loss of \$340 million—a more than four-fold increase from the \$75 million net loss in the first quarter of 2015.<sup>58</sup> The U.S. steel industry association, the American Iron and Steel Institute, estimated that since January 2015 the steel industry lost 13,500 jobs due to unfair foreign trade practices from Brazil, China, India, Korea, and Turkey.<sup>59</sup> U.S. Steel, for example, laid off 1,300 workers in January 2016 alone.<sup>60</sup> Conditions are expected to worsen based on low price projections, higher imports, and high inventory levels.<sup>61</sup>

U.S. and foreign steel companies are fighting back with antidumping petitions that seek higher tariffs against imported Chinese steel, but these remedies, while decisive, are seldom swift.<sup>62</sup> As of January 14, 2016, the U.S. International Trade Commission (USITC) had 40 antidumping and countervailing duty orders in place against imports of iron and steel products from China, nearly 25 percent of total steel-related antidumping and countervailing duty orders in place.<sup>63</sup> But instituting these trade remedies takes time, and enforcement can be difficult. Terrence P. Stewart, managing partner at Stewart & Stewart, noted, “The nature of trade remedies usually means significant harm has already occurred—plants have closed, workers have lost jobs, communities are seriously affected.”<sup>64</sup> Furthermore, antidumping and countervailing duties address specific types of products; steel has dozens of classifications, which makes ensuring complete coverage difficult. Chinese and other foreign firms are able to circumvent established duties by either mislabeling their exports or making minor adjustments or upgrades to change the classification of their products. For example, the United States has maintained duties against carbon steel plates from China since 1997.\* In May 2015, U.S. steelmakers accused Chinese firms of “engaging in gamesmanship, importing commodity-grade, carbon steel cut-to-length plates that has undergone minor alterations solely to circumvent the order.”<sup>65</sup> Based on evidence that the production methods, specifications, and physical characteristics are nearly identical, the USITC in February 2016 decided to initiate an antidumping duty circumvention inquiry. This inquiry will determine if duties need to be imposed on these modified products.<sup>66</sup>

In February 2016, Congress passed the Trade Facilitation and Trade Enforcement Act (ENFORCE Act)<sup>†</sup> to address the evasion of antidumping and countervailing duties by China and other countries. In March 2016, U.S. Customs and Border Protection announced a live-entry requirement for steel imports that obliges importers to provide paperwork and pay the necessary duties before the shipment is allowed into the U.S. market. This shift allows the government more control to address duty evasion before a product hits the U.S. market; steel imports are the first pilot of this program.<sup>67</sup>

Recognizing the continuing challenges, on April 12–13, 2016, the USTR and U.S. Department of Commerce jointly held a public hearing on the global steel industry and its impact on the U.S. steel industry and market.<sup>68</sup> On April 14, 2016, the Congressional Steel Caucus held its annual public hearing on steel.<sup>69</sup> In their written testimony to both hearings, the U.S. steel industry issued a blanket plea for stricter enforcement of U.S. trade laws against unfairly subsidized imports from China and other exporters.<sup>70</sup> Some of the other proposed recommendations include:

- *Multilateral Steel Agreement:* Evraz North America,<sup>‡</sup> SSAB Americas, ArcelorMittal USA,<sup>§</sup> and other steel producers proposed a multilateral agreement to limit government subsidies for the steel sector and reduce

\* The United States first imposed duties against carbon steel plates from China in 1997, and has maintained these duties after three subsequent reviews—the last of which was completed in December 2015—found a removal of these duties would cause material injury to U.S. firms. For more information, see U.S. International Trade Commission, *Cut-to-Length Carbon Steel Plate from China, Russia, and Ukraine*, Investigation Nos. 731-TA-753, 754, and 756 (Third Review), Publication 4581, December 2015. [https://www.usitc.gov/publications/701\\_731/pub4581.pdf](https://www.usitc.gov/publications/701_731/pub4581.pdf).

† For the full text of the draft bill, see H.R. 644 – Trade Facilitation and Trade Enforcement Act of 2015.

<https://www.congress.gov/bill/114th-congress/house-bill/644/text#toc-H34EF63A5A8C24AB69A32C6EAF5634A92>.

‡ Evraz North America is a subsidiary of Russian steel producer Evraz and employs approximately 1,500 people in its production facilities in Portland, Oregon, and Pueblo, Colorado, as well as in its headquarters in Chicago, Illinois. Office of the U.S. Trade Representative and Department of Commerce, *Hearing on Global Steel Industry and Impact on U.S. Steel Industry and Market*, written testimony of Conrad Winkler, April 12, 2016. <http://bit.ly/1SP2dHw>.

§ Luxembourg-based ArcelorMittal is the world's largest steel firm and owns mills in Indiana and elsewhere in the United States.

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capacity.<sup>71</sup> Nucor Corporation, United Steelworkers, and the Steel Manufacturers Association went a step further and urged for binding commitments to cut net production capacity.<sup>72</sup> Previous attempts at a multilateral steel agreement in the late 1990s and 2004 both failed.<sup>73</sup>

- *Section 232 of the Trade Expansion Act of 1962:* This option would allow the U.S. president to “adjust imports” based on a threat to national security interests. In his written testimony, Douglas R. Matthews, senior vice president at U.S. Steel, urged that the U.S. government “must formally recognize the American steel industry as a national security interest, which must be sustained and supported by our laws and policies.”<sup>74</sup> None of the nine steel-related cases the Department of Commerce has initiated have found a threat to national security.<sup>75</sup> Then president George W. Bush initiated this option in 2001 to address iron ore and semi-finished steel imports; following the required Department of Commerce investigation, Section 232 was not applied because “there [was] no probative evidence that imports of iron ore or semi-finished steel threaten to impair U.S. national security.”<sup>76</sup>
- *Section 201 of the Trade Act of 1974:* This option would apply a global safeguard on imports that seriously injure or threaten to injure U.S. industry without requiring that the USITC find an unfair trade practice by a trading partner.<sup>77</sup> The U.S. steel industry would petition the USITC for import relief; the USITC would then conduct an investigation and provide recommendations to the president.<sup>78</sup> United Steelworkers proposed both Section 232 and Section 201 as two of a range of existing policy options for the Obama Administration.<sup>79</sup> Section 201 was last applied to the steel industry in March 2002 for a year by then president George W. Bush.<sup>80</sup> The EU, Japan, and other countries successfully challenged this measure at the WTO and forced the U.S. government to remove this safeguard.<sup>81</sup>

On April 18, the OECD convened a high-level meeting to address steel overcapacity, but the meeting failed to reach any substantive agreement.<sup>82</sup> U.S. Secretary of Commerce Penny Pritzker and U.S. Trade Representative Michael Froman issued a joint statement expressing their frustrations, largely directed at China:

*With the largest amount of excess capacity in the world, larger than the rest of the world combined, China had a unique opportunity – and responsibility – to engage constructively towards such a result, one that is in the world’s interest as well as China’s. Unless China starts to take timely and concrete actions to reduce its excess production and capacity in industries including steel, and works with others to ensure that future government actions do not once again contribute to excess capacity, the fundamental structural problems in the industry will remain and affected governments – including the United States – will have no alternatives other than trade action to avoid harm to their domestic industries and workers. As we heard at a hearing last week on overcapacity convened by the Administration, the viability of the global steel industry has come under intense pressure from excess production and capacity in China, and there are already significant human costs associated with the current steel market downturn. This is a global issue and meaningful solutions will require global action, including from steel-producing countries, especially China. We will be working directly with China on excess capacity issues in a number of different bilateral and multilateral setting in the weeks and months ahead.*<sup>83</sup>

A follow-up OECD dialogue is scheduled for September 2016.<sup>84</sup>

Following the failure of multilateral action, Mr. Longhi noted in April 2016 that U.S. Steel “will continue to use every trade remedy available to us to confront unfair trade practices in our market.”<sup>85</sup> On April 26, U.S. Steel lodged a complaint with the USITC alleging that in 2011 the Chinese government stole technology for one of its most valuable products, lightweight steel, and provided this stolen technology to its state-owned steel firm, Baosteel.<sup>86</sup> Two years later, Baosteel began exporting this type of steel to the United States.<sup>87</sup> The Chinese Ministry of Commerce rejected the complaint as groundless, and Baosteel called the accusations “complete nonsense.”<sup>88</sup> The USITC will announce whether it will launch an investigation in 30 days.<sup>89</sup> In 2014, the U.S. Department of Justice indicted five Chinese military personnel\* for economic espionage against, among others, U.S. Steel and United

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\* For more information on this economic espionage case, see U.S.-China Economic and Security Review Commission, *2015 Annual Report to Congress*, November 2015, 199–200. <http://1.usa.gov/21g5i90>.

Steelworkers. Information acquired provided insight into business strategy and advance warning of upcoming trade suits and tariffs.<sup>90</sup>

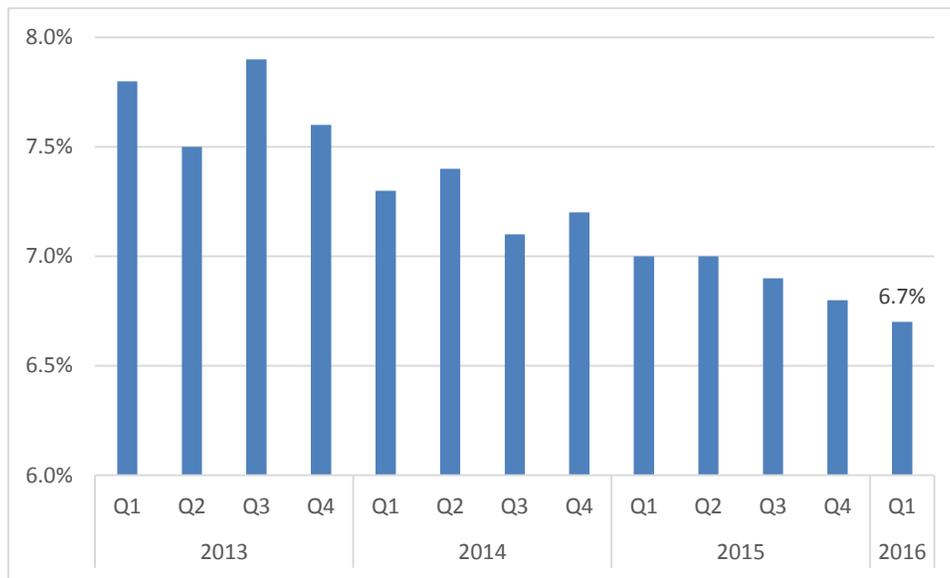
Last week, the USTR once again accused the Chinese government of not adhering to its WTO obligations by failing to report its subsidies to the WTO.<sup>91</sup> The USTR provided WTO members a list of China’s subsidies for one of its largest steel firms and reported on the Chinese banking regulator’s instructions to increase direct funding and loosen financing restrictions to the steel sector.<sup>92</sup> Per the WTO Agreement on Subsidies and Countervailing Measures, member countries must report all of their subsidies each year.<sup>93</sup> While the Chinese government stated it is preparing a notification of local and provincial subsidies for 2001–2004, this notification is over a decade late.<sup>94</sup>

## Quarterly Review of China’s Economy

### Rising Debt Fuels Economic Growth in 2016 Q1

According to official data released by China’s National Bureau of Statistics, in the first quarter of 2016 China’s gross domestic product (GDP) growth reached 6.7 percent over the previous year, in line with the government’s target of between 6.5 percent and 7 percent for the full year. Though a step down from 6.8 percent growth in the last quarter of 2015 (see Figure 8), the growth rate showed an overall strengthening of China’s economy following weakness in January and February. The economy stabilized in large part due to the recovery in March of fixed-asset investment, retail sales, and industrial output. At the same time, capital outflows and exchange rate volatility—which contributed to significant investor concerns in January—stabilized.<sup>95</sup> On the strength of China’s 2016 Q1 GDP, the International Monetary Fund (IMF) revised its forecast of Chinese growth in 2016 from 6.3 percent to 6.5 percent.<sup>96</sup>

**Figure 8: China’s GDP Growth, 2013–2016 Q1**  
(year-on-year)

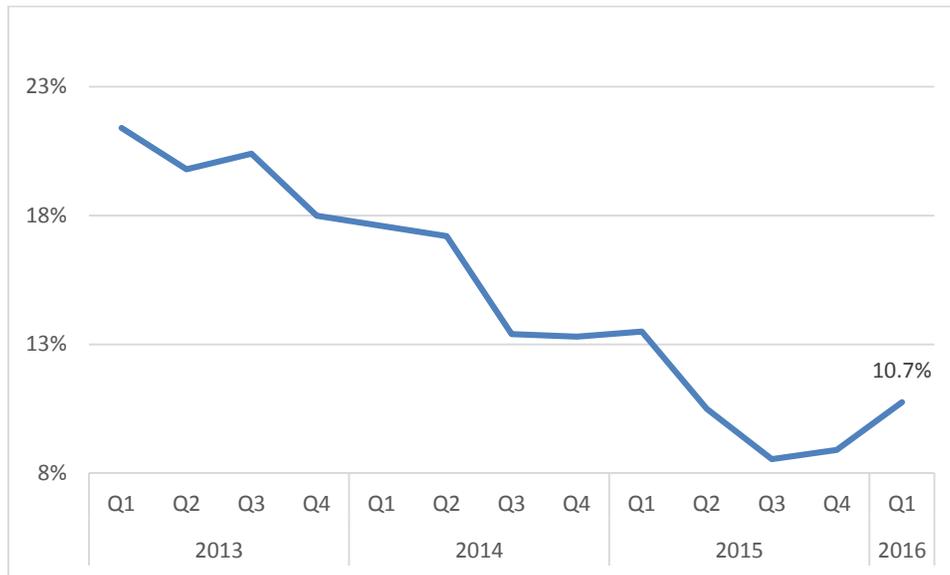


Source: China’s National Bureau of Statistics via CEIC database.

Fixed-asset investment grew 10.7 percent year-on-year in the first quarter of 2016 (see Figure 9), as activity in the property construction sector picked up.<sup>97</sup> Sheng Laiyun, spokesman for China’s National Bureau of Statistics, said the property market’s contribution to growth was 7 to 8 percentage points higher in 2016 Q1.<sup>98</sup>

\* For more information on China’s adherence to its WTO commitments, see U.S.-China Economic and Security Review Commission, *2015 Annual Report to Congress*, November 2015, 55–57. <http://1.usa.gov/1PIucJk>.

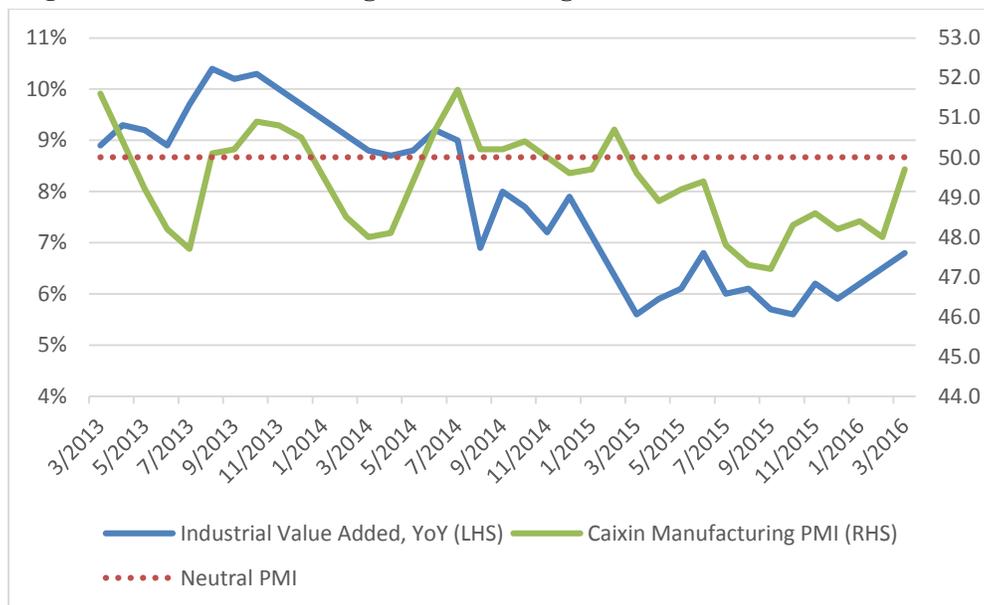
**Figure 9: Fixed-Asset Investment, 2013–2016 Q1**  
(year-on-year)



Source: China’s National Bureau of Statistics via CEIC database.

China’s manufacturing sector, which has struggled in recent months, also showed signs of recovery. Caixin’s unofficial estimate of China’s manufacturing Purchasing Managers’ Index (PMI) registered 49.7 in March and 49.4 in April, up from 48 in February (see Figure 10).<sup>99</sup> Though the PMI continued to register a reading below 50—which indicates contraction in manufacturing activity—the March reading was the strongest in 13 months.<sup>100</sup> Industrial value-added growth—viewed by markets as a proxy for overall growth in China—also grew, expanding 6.8 percent year-on-year in March.<sup>101</sup>

**Figure 10: China’s Declining Manufacturing Sector, March 2013–March 2016**

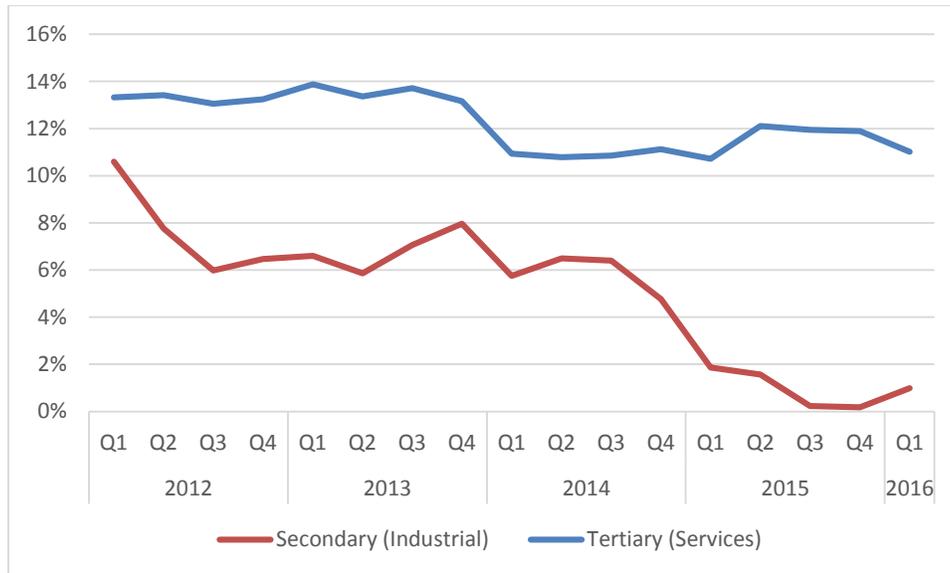


Source: China’s National Bureau of Statistics via CEIC; Markit, “China Caixin Manufacturing PMI.” <http://bit.ly/23pH7o3>.

The rally in China’s “old economy”—sectors such as manufacturing, heavy industry, and mining—was also evident in the slight uptick in growth. Secondary industry grew almost 1 percent in the first quarter of 2016 over the previous

year after flatlining at the end of 2015, while growth in China’s tertiary sector (predominantly services) dipped from 11.9 percent in the fourth quarter of 2015 to 11 percent in the first quarter of 2016 (see Figure 11).

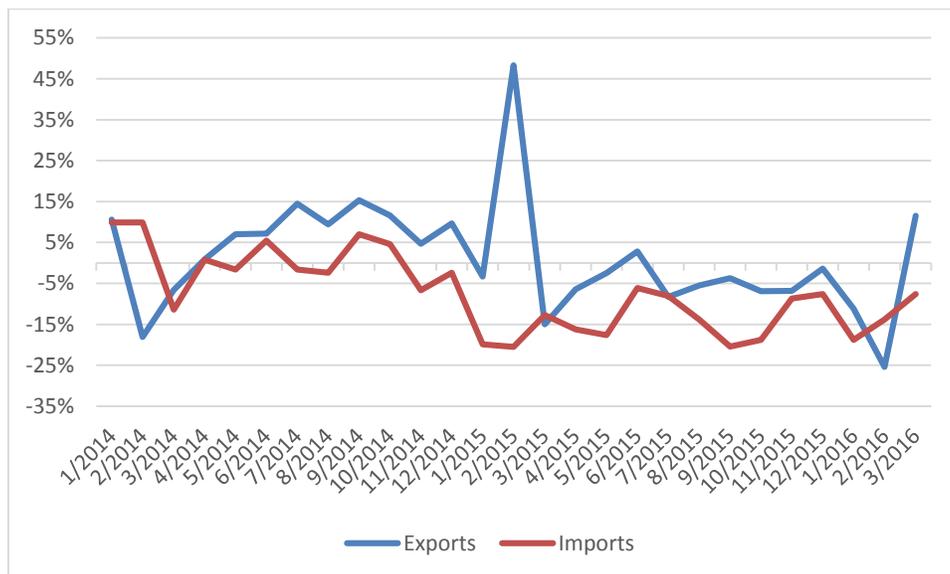
**Figure 11: GDP Growth by Sector, 2012–2016 Q1**  
(year-on-year)



Source: China’s National Bureau of Statistics via CEIC database.

In the first quarter of 2016, China’s exports and imports showed recovery. In dollar terms, March 2016 exports grew 18.7 percent year-on-year, while imports fell only 1.7 percent compared with an 8 percent fall in February (see Figure 12).

**Figure 12: Chinese Exports and Imports Change over the Previous Year, 2014–2016 Q1**  
(monthly)



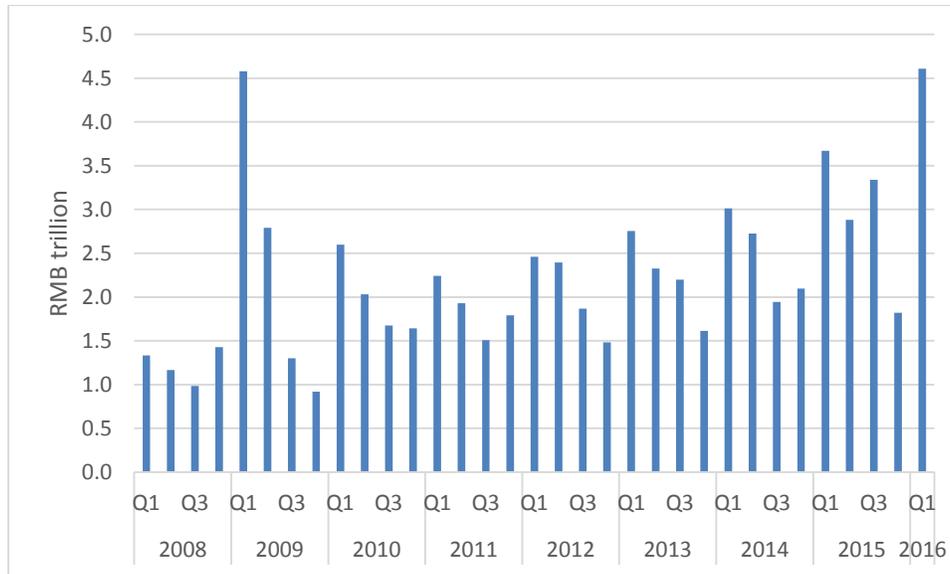
Source: China’s General Administration of Customs via CEIC database.

### Experts Raise Concerns about the Economic Rebound’s Sustainability

Despite the roster of good economic news, investors and researchers have expressed doubts that China’s economic rebound will last, citing several reasons. First, the recovery was fueled by a massive expansion in credit. In March

2016, banks extended RMB 1.37 trillion (\$211 billion) of new loans, nearly double the amount in December 2015 (RMB 726.6 billion).<sup>102</sup> Overall, in the first quarter of 2016, new loans were an unprecedented RMB \$4.6 trillion, exceeding even the pace of new loan origination at the height of China’s 2008–2009 bank-led stimulus program (see Figure 13).<sup>103</sup>

**Figure 13: New Loans Issued by China’s Banks, 2008–2016 Q1**  
(year-on-year)



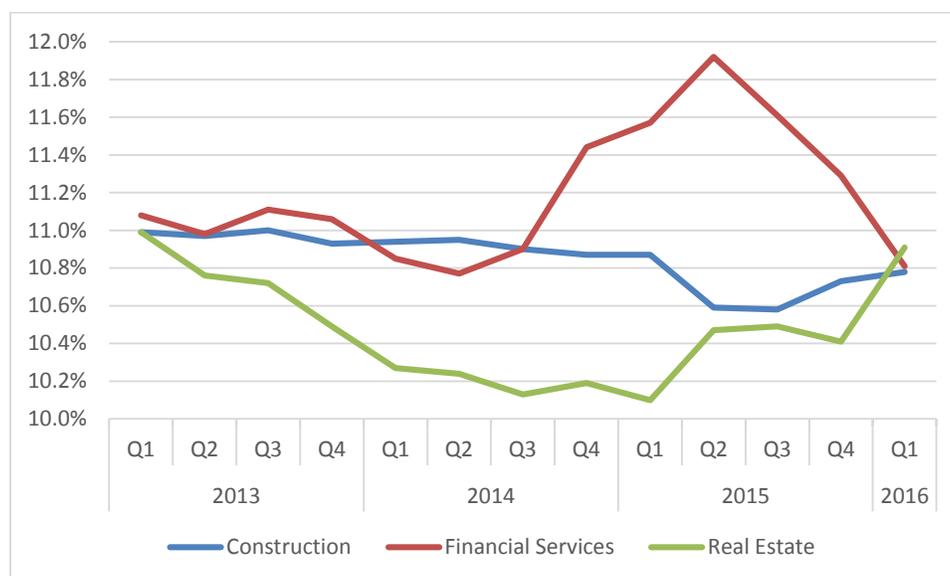
Source: The People’s Bank of China via CEIC database.

Investment-led recovery could worsen many of the longstanding structural imbalances, including rising nonperforming loans\* and overcapacity. Xu Hongcai, research division chief at the China Center for International Economic Exchanges, a top government think tank, said that while boosting investment to stimulate economic growth could work in the short run, it would have “big negative consequences.”<sup>104</sup> By once again relying on investment to stimulate the economy, the Chinese government is not only going back on its promise to abandon investment-led growth as it rebalances the economy toward consumption, but also risks adding to China’s debt problems. In an April 2016 report, the IMF found that 14 percent of total corporate borrowing in China was at risk in 2015, up from only 4 percent in 2010.<sup>105</sup>

The second source of concern is that the primary driver of economic activity was the real estate sector, which is already experiencing a high degree of risk due to indebtedness and loss-making.<sup>106</sup> In 2016 Q1, at 9.1 percent year-on-year, the real estate sector was the fastest-growing component of China’s GDP (see Figure 14).<sup>107</sup> (In contrast, financial services’ share has been in decline since the stock bubble burst last year.) These gains, however, were spread unevenly across the country: house prices grew in first-tier cities like Shanghai and Beijing (up 29.5 percent year-on-year), but in third-tier cities prices actually fell 0.9 percent over the same period—meaning the huge glut of unsold properties in these smaller cities will remain in place.<sup>108</sup>

\* China’s nonperforming loan rate is already rising rapidly. For more, see U.S.-China Economic and Security Review Commission, *Economics and Trade Bulletin*, April 5, 2016. <http://1.usa.gov/1RZVCPi>.

**Figure 14: Contribution to China’s GDP by Select Sectors, 2013–2016 Q1**



Source: China’s National Bureau of Statistics via CEIC database.

## Sector Focus: Pork

### Pork Shortage Leads to Rising Prices in China

In April 2016, Chinese wholesale pork prices climbed to over RMB 26 per kilogram, an increase of over 43 percent year-on-year and around 8 percent higher than in March 2016.<sup>109</sup> The high pork prices were reflected in China’s consumer price index (CPI)—a measure of price changes in household-purchased consumer goods and services—which showed consumer prices up 2.3 percent in March from a year earlier.<sup>\* 110</sup> The pork price inflation is similar to levels seen in October 2011, when pork prices also rose to more than RMB 26 per kilogram after depressed hog prices and swine disease in 2010 led to a decline in China’s hog inventory.<sup>111</sup>

As in 2011, China’s recent spike in pork prices is the result of a declining hog population, with the country’s pig stock falling 6 percent year-on-year in March 2016—part of an ongoing trend.<sup>112</sup> China’s pig supply has been declining for the past two years, shrinking from 474 million pigs in December 2013 to just 410 million in March 2016, a 13.4 percent decline (see Figure 15).<sup>113</sup> China’s pig stock decline began to level out in the final months of 2015, but accelerated again in the first three months of 2016.<sup>114</sup>

\* The contribution of food prices to the CPI figures increased 7.6 percent in March, led by higher pork prices, which make up around 3 percent of the price used to calculate CPI. Lucy Cramer, “Pork Shortage in China Leads to Soaring Prices, Rush to Import,” *Wall Street Journal*, April 11, 2016. <http://www.wsj.com/articles/pork-shortage-in-china-leads-to-soaring-local-prices-and-increase-in-imports-1460369468>.

**Figure 15: China's Pig Stock, 2013–2016**



Source: Ministry of Agriculture via CEIC database.

Low pork prices in 2014 and 2015, coupled with higher feed costs and stricter environmental rules for farmers, contributed to the recent pig shortage.<sup>115</sup> Wholesale pork prices dropped by more than a third in 2014 and 2015, declining from RMB 22 per kilogram in December 2013 to just RMB 16 per kilogram four months later.<sup>116</sup> Hog prices need to be six times the price of grain in order for farmers to break even, but prices were well below that level for most of 2014 and early in 2015, reaching only 5.7 times grain prices in January 2015.<sup>117</sup> In addition, new environmental regulations have forced farms to relocate away from urban centers and increase their waste management costs.<sup>118</sup> Small and medium-sized farms in provinces with large urban centers have been under financial duress since 2013, when 16,000 dead pigs were found floating in a river near Shanghai, leading the government to enact requirements that farms operate away from major rivers and cities.<sup>119</sup> In developed regions like Guangdong Province and Fujian Province where land is costly, these regulations have imposed heavy costs on farmers, with many small farms unable to relocate and forced to close.<sup>120</sup> The combination of higher costs and lower pork prices forced around five million pig farms, mainly small-scale, to close in 2015.<sup>121</sup>

Pork prices are often volatile in China, however, and in April Ye Zhenqin, a senior official at China's Ministry of Agriculture, said the government expects prices will stabilize as costs decrease.<sup>122</sup> China has taken steps to reduce the price of grain and animal feed, including ending a nine-year stockpiling system that artificially lifted corn prices—a main component of pig feed—30 to 50 percent above global market prices.<sup>123</sup> According to a March statement from China's State Administration of Grain, the government will also subsidize corn growers and encourage commercial firms to buy grain from farmers at market prices.<sup>124</sup> Hog prices have rebounded from an unprofitable 5.7 times grain prices in January 2015 to 9.13 times grain prices in April 2016, signaling pig stock declines could also reverse in the coming months as hog farmers expand their operations and new farms open.<sup>125</sup> In addition, the Chinese government has redoubled efforts to directly reduce pork prices, announcing it will provide subsidies of up to RMB 9 per 2.2 pounds of pork to vendors starting in May.<sup>126</sup> Starting May 5, Beijing will also begin releasing over 6.7 million pounds of frozen pork from the country's strategic pork reserve\* in an attempt to lower prices.<sup>127</sup>

## China's Role in Global Pork Markets

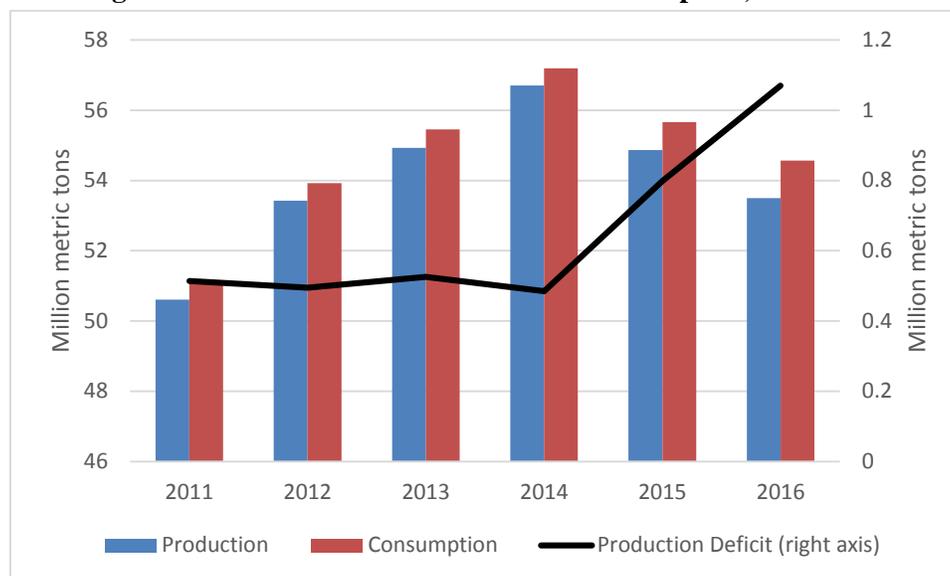
Because China is the world's largest pork consumer, its recent pork shortage has benefitted global producers, who have increased their China-bound exports.<sup>128</sup> In 2011, China's per capita pork consumption was 78.5 pounds, more

\* China has maintained a strategic pork reserve since 2007 with both live hogs and frozen pork. Mamta Badkar, "14 Facts about the Staggeringly Huge Chinese Pork Industry," *Business Insider*, May 29, 2013. <http://www.businessinsider.com/chinese-pork-industry-facts-2013-5>; Ted Kemp, "Hog Stock: Inside China's Strategic Pork Reserve," *CNBC*, June 6, 2013. <http://www.cnbc.com/id/100795405>.

than double the world's average.<sup>129</sup> By 2015, China's per capita pork consumption had increased more than 18 percent to 93 pounds per capita, compared to 50 pounds per capita in the United States.<sup>130</sup> According to a 2015 U.S. Department of Agriculture (USDA) livestock report, China consumes around 58 million tons of pork each year, accounting for more than two-thirds of the country's meat consumption.<sup>131</sup> Demand for pork will continue growing as China's middle class expands, with consumption expected to increase another 15 percent over the next decade.<sup>132</sup>

However, the country's growing demand for pork has put immense strain on the country's pig farmers.<sup>133</sup> Between 2000 and 2014, despite increasing its pork production by 44 percent, China could not keep up with rising demand, with pork consumption outpacing pork production by nearly one million tons in 2015.<sup>134</sup> The recent pig shortage has led to an even greater pork deficit, as Chinese pork consumption has exceeded pork production by 1.1 million tons in the first four months of 2016 (see Figure 16).<sup>135</sup>

**Figure 16: China Pork Production and Consumption, 2011–2016**



Note: Data for 2016 are through April.

Source: United States Department of Agriculture Foreign Agricultural Service. <http://apps.fas.usda.gov/psdonline/>.

To meet rising demand, China is developing more large-scale pig farms while increasing pork imports to supplement domestic production.<sup>136</sup> The share of local pig farmers\* in China declined from 73 percent of total pig farmers in 2002 to 34 percent in 2010, an expression of Beijing's efforts to replace small pig farmers with industrialized large-scale operations.<sup>137</sup> From 2002 to 2010, the number of mid- and large-scale pig farms slaughtering 50 or more hogs per year increased from 27 percent to 66 percent of the total.<sup>138</sup> According to Kevin Chen, a senior research fellow with the International Food Policy Research Institute in Beijing, it is not unusual to see facilities that can accommodate more than 100,000 piglets in China today as the number of backyard farms continues to decline.<sup>139</sup>

China has also increased its pork imports to offset growing pork consumption relative to production. China has been a net importer of pork since 2008 (following a 2007 pig shortage), with pork imports rising from 200,000 tons in 2007 to over 850,000 tons in 2015.<sup>140</sup> In 2016, pork imports are expected to total more than one million tons.<sup>141</sup> The EU is the primary beneficiary of China's growing pork imports,<sup>†</sup> making up about 70 percent of China's pork import market share, compared to around 18 percent for the United States.<sup>142</sup>

Numerous nontariff barriers, including bans on U.S. feed additives and excessive subsidies provided to local pork producers, restrict U.S. access in the Chinese pork market.<sup>143</sup> For example, U.S. pig farmers have lost out on opportunities in the Chinese pork market because most U.S. pigs are raised on ractopamine—a feed additive that

\* Local pig farms are defined as farms that slaughter fewer than 50 pigs per year. Stefani Kim, "High off the Hog," *ChinaFile*, June 24, 2015. <https://www.chinafile.com/reporting-opinion/environment/chinas-pork-consumption>.

† Like China, all 28 countries in the EU have banned ractopamine in pork products. Shruti Date Singh, "U.S. Is Missing out on China's Pork Boom because its Pigs Are on Muscle Drugs," *Bloomberg*, August 11, 2015. <http://www.bloomberg.com/news/articles/2015-08-11/pigs-using-muscle-drug-means-u-s-missing-china-pork-import-boom>.

significantly enhances yield and efficiency in pork production, but is banned in China.<sup>144</sup> Only around 20 percent of U.S. pork exports are ractopamine-free, with much of that supply coming from Smithfield Foods Inc.—which China’s Shuanghui International Holdings Ltd. acquired in 2013.\*<sup>145</sup> In addition, after traces of ractopamine were found in additive-free pork exports from the United States, China stopped importing from 14 U.S. pork plants and warehouses, further limiting the supply of U.S. pork products eligible for export to China.<sup>146</sup> As a result of increased Chinese regulations on ractopamine facilities, U.S. pork exports to China declined 41 percent year-on-year in the first six months of 2015, reaching the lowest levels since 2010.<sup>147</sup> According to Philip Seng, the president and chief executive officer of the U.S. Meat Export Federation, the lost value from sales of pork offal—including pig intestines and organs—to China reached \$9 per pig in the summer of 2015, up from \$7 in late 2014, because of slowing exports to China.<sup>148</sup>

Chinese pork subsidies also limit access for U.S. farmers, with the U.S. National Pork Producers Council estimating U.S. pork exports to China would increase by 50 percent if China eliminated its domestic pork subsidies.<sup>149</sup> If the Chinese hog-corn price ratio drops, for instance, the government will purchase local pork at high prices.<sup>150</sup> The government also maintains a national pork reserve to flood the market if prices rise too high, provides farmers with a sow insurance program, and provides a cash subsidy scheme for large-scale farms.<sup>151</sup> In total, pork subsidies in China increased more than 44 percent from 2008 to 2012, and continue to put U.S. pork at a significant disadvantage in the Chinese market.<sup>152</sup>

In the first four months of 2016, however, U.S. pork exports to China have begun to increase after China lifted restrictions on U.S pork production facilities. In October 2015, China announced it would resume pork imports from 14 U.S. plants and warehouses, ending restrictions that, in some cases, had been in place for more than year.<sup>153</sup> These conditions—along with rising exports from the EU and Australia buoyed by favorable exchange rates—contributed to reduced pork exports to China in 2015, but leading industry officials are more optimistic about the future of U.S. pork exports to China now that restrictions on the 14 production facilities have been lifted.<sup>154</sup> Although exports are still well below 2014 levels, pork exports to China in February 2016 were up 38 percent from the previous month and 552 percent year-on-year, the highest monthly level since March 2014 (see Figure 17).<sup>155</sup>

**Figure 17: U.S. Pork Exports to China, January 2015–February 2016**



Source: U.S. Meat Export Federation, “Export Statistics.” [https://www.usmef.org/news-statistics/statistics/?stat\\_year=2016](https://www.usmef.org/news-statistics/statistics/?stat_year=2016).

\* For more on the Shuanghui acquisition of Smithfield, see the U.S.-China Economic and Security Review Commission, *Economics and Trade Bulletin*, June 4, 2013, 5–9. <http://1.usa.gov/INWEIVx>.

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## Endnotes

- <sup>1</sup> U.S. Census Bureau, U.S. International Trade in Goods and Services, May 4, 2016. <http://www.census.gov/foreign-trade/statistics/highlights/congressional.html>.
- <sup>2</sup> U.S. Census Bureau. (Washington, DC: U.S. Department of Commerce, Foreign Trade Division, May 2016). <http://www.census.gov/foreign-trade/balance/c5700.html>.
- <sup>3</sup> U.S. Census Bureau, "Top Trading Partners – March 2016," <http://www.census.gov/foreign-trade/statistics/highlights/top/top1603yr.html>.
- <sup>4</sup> U.S. Census Bureau. (Washington, DC: U.S. Department of Commerce, Foreign Trade Division, May 2016).
- <sup>5</sup> U.S. Census Bureau. [http://censtats.census.gov/naics3\\_6/naics3\\_6.shtml](http://censtats.census.gov/naics3_6/naics3_6.shtml).
- <sup>6</sup> U.S. Census Bureau. (Washington, DC: U.S. Department of Commerce, Foreign Trade Division, May 2016). <http://www.census.gov/foreign-trade/statistics/product/atp/2015/12/ctryatp/atp5700.html>.
- <sup>7</sup> TravelChinaGuide.com, "China Inbound Tourism." <https://www.travelchinaguide.com/tourism/2015statistics/inbound.htm>.
- <sup>8</sup> CAPA Center for Aviation, "Chinese Airlines Overtake U.S. Carriers across the Pacific," May 4, 2015. <http://centreforaviation.com/analysis/chinese-airlines-overtake-us-carriers-across-the-pacific-time-for-us-china-open-skies-222454>.
- <sup>9</sup> United States Trade Representative, *2016 National Trade Estimate Report on Foreign Trade Barriers*, March 2016. <https://ustr.gov/sites/default/files/2016-NTE-Report-FINAL.pdf>.
- <sup>10</sup> United States Trade Representative, *2016 National Trade Estimate Report on Foreign Trade Barriers*, March 2016. <https://ustr.gov/sites/default/files/2016-NTE-Report-FINAL.pdf>.
- <sup>11</sup> United States Trade Representative, *2015 National Trade Estimate Report on Foreign Trade Barriers*, March, 2015. <https://ustr.gov/sites/default/files/2015%20NTE%20Combined.pdf>.
- <sup>12</sup> United States Trade Representative, *2016 National Trade Estimate Report on Foreign Trade Barriers*, March 2016. <https://ustr.gov/sites/default/files/2016-NTE-Report-FINAL.pdf>.
- <sup>13</sup> American Chamber of Commerce in the People's Republic of China, "2016 China Business Climate Survey Report." <http://www.amchamchina.org/policy-advocacy/business-climate-survey/>.
- <sup>14</sup> American Chamber of Commerce in the People's Republic of China, "2015 China Business Climate Survey Report." <http://www.amchamchina.org/policy-advocacy/business-climate-survey/2015-business-climate-survey>.
- <sup>15</sup> American Chamber of Commerce in the People's Republic of China, "2015 China Business Climate Survey Report." <http://www.amchamchina.org/policy-advocacy/business-climate-survey/2015-business-climate-survey>.
- <sup>16</sup> GreatFire.org, "Censorship of Alexa Top 1000 Domains in China." <https://en.greatfire.org/search/alexa-top-1000-domains>.
- <sup>17</sup> Paul Carsten, "U.S. Says China Internet Censorship a Burden for Business," Reuters, April 8, 2016. <http://www.reuters.com/article/us-usa-china-trade-internet-idUSKCN0X50RD>.
- <sup>18</sup> GreatFire.org, "Online Censorship in China." <https://en.greatfire.org/analyzer>.
- <sup>19</sup> Paul Carsten, "U.S. Says China Internet Censorship a Burden for Business," Reuters, April 8, 2016. <http://www.reuters.com/article/us-usa-china-trade-internet-idUSKCN0X50RD>.
- <sup>20</sup> Freedom House, "Freedom on the Net 2015: Table of Country Scores." <https://freedomhouse.org/report/freedom-net-2015/tablecountry-scores>.
- <sup>21</sup> Julie Makinen, "Chinese Censorship Costing U.S. Tech Firms Billions in Revenue," *Los Angeles Times*, September 22, 2015. <http://www.latimes.com/business/la-fi-china-tech-20150922-story.html>.
- <sup>22</sup> Julie Makinen, "Chinese Censorship Costing U.S. Tech Firms Billions in Revenue," *Los Angeles Times*, September 22, 2015. <http://www.latimes.com/business/la-fi-china-tech-20150922-story.html>.
- <sup>23</sup> Margaret Sullivan, "The Thorny Challenge of Covering China," *New York Times*, December 7, 2013. <http://www.nytimes.com/2013/12/08/public-editor/the-thorny-challenge-of-covering-china.html>.

- <sup>24</sup> Julie Makinen, “Chinese Censorship Costing U.S. Tech Firms Billions in Revenue,” *Los Angeles Times*, September 22, 2015. <http://www.latimes.com/business/la-fi-china-tech-20150922-story.html>.
- <sup>25</sup> Julie Makinen, “Chinese Censorship Costing U.S. Tech Firms Billions in Revenue,” *Los Angeles Times*, September 22, 2015. <http://www.latimes.com/business/la-fi-china-tech-20150922-story.html>.
- <sup>26</sup> Julie Makinen, “Chinese Censorship Costing U.S. Tech Firms Billions in Revenue,” *Los Angeles Times*, September 22, 2015. <http://www.latimes.com/business/la-fi-china-tech-20150922-story.html>.
- <sup>27</sup> Keith Bradsher, “China Clamps Down on Web, Pinching Companies Like Google,” *New York Times*, September 21, 2014. <http://www.nytimes.com/2014/09/22/business/international/china-clamps-down-on-web-pinching-companies-like-google.html>.
- <sup>28</sup> Michael Martina, “China Internet Regulator Says Web Censorship Not a Trade Barrier,” Reuters, April 11, 2016. <http://www.reuters.com/article/us-usa-china-trade-internet-idUSKCN0X80E9>.
- <sup>29</sup> Charles Clover, “China Web Tsar Admits Censorship Troubles,” *Financial Times*, December 9, 2015. <http://www.ft.com/intl/cms/s/0/d3504192-9e46-11e5-b45d-4812f209f861.html#axzz3uMliIFii>; *Global Times* (China), “Why Does the Western Media Hate the GFW So Much?” April 11, 2016. <http://www.globaltimes.cn/content/977979.shtml>.
- <sup>30</sup> Edward Wong, “Clampdown in China Restricts 7,000 Foreign Organizations,” *New York Times*, April 28, 2016. <http://www.nytimes.com/2016/04/29/world/asia/china-foreign-ngo-law.html>.
- <sup>31</sup> Edward Wong, “Clampdown in China Restricts 7,000 Foreign Organizations,” *New York Times*, April 28, 2016. <http://www.nytimes.com/2016/04/29/world/asia/china-foreign-ngo-law.html>.
- <sup>32</sup> William Maudlin, “China Halts Export-Subsidy Program after U.S. Challenge,” *Wall Street Journal*, April 14, 2016. <http://www.wsj.com/articles/china-halts-export-subsidy-program-u-s-says-1460643214>.
- <sup>33</sup> Diane Bartz, “U.S. Says China to Scrap Some Export Subsidies,” Reuters, April 14, 2016. <http://www.reuters.com/article/us-usa-china-trade-idUSKCN0XB1UQ>.
- <sup>34</sup> United States Office of the United States Trade Representative, *Fact Sheet: Agreement to Terminate Export Subsidies under China’s Demonstration Bases-Common Service Platform Program*, April 2016. <https://ustr.gov/about-us/policy-offices/press-office/fact-sheets/2016/april-agreement-terminate-export-subsidies-under-China-DB-platform>.
- <sup>35</sup> United States Office of the United States Trade Representative, *Chinese Export Subsidies under the “Demonstration Bases-Common Service Platform” Program Terminated Thanks to U.S.-China Agreement*, April 2016. <https://ustr.gov/about-us/policy-offices/press-office/press-releases/2016/april/chinese-export-subsidies-under>.
- <sup>36</sup> Josh Earnest, “Press Briefing,” *China Trade Extra*, April 14, 2016. [http://chinatradeextra.com/sites/chinatradeextra.com/files/documents/apr2016/wto2016\\_0960a.pdf](http://chinatradeextra.com/sites/chinatradeextra.com/files/documents/apr2016/wto2016_0960a.pdf).
- <sup>37</sup> United States Office of the United States Trade Representative, *Chinese Export Subsidies under the “Demonstration Bases-Common Service Platform” Program Terminated Thanks to U.S.-China Agreement*, April 2016. <https://ustr.gov/about-us/policy-offices/press-office/press-releases/2016/april/chinese-export-subsidies-under>.
- <sup>38</sup> Bryce Baschuk, “China Ends Subsidy Program, Settles WTO Dispute with U.S.,” Bloomberg, April 14, 2016. <https://www.bgov.com/core/news/#!/articles/O5NDTH3H0JK0>.
- <sup>39</sup> Shawn Donnan and Lucy Hornby, “US Challenges ‘Illegal’ Chinese Export Subsidies,” *Financial Times*, February 11, 2015. <http://www.ft.com/intl/cms/s/0/155ede14-b1a2-11e4-a830-00144feab7de.html#axzz47DxwUNvi>.
- <sup>40</sup> Shawn Donnan and Lucy Hornby, “US Challenges ‘Illegal’ Chinese Export Subsidies,” *Financial Times*, February 11, 2015. <http://www.ft.com/intl/cms/s/0/155ede14-b1a2-11e4-a830-00144feab7de.html#axzz47DxwUNvi>.
- <sup>41</sup> Aaron Stanley, “Q&A: US Challenges China Export Subsidies,” *Financial Times*, February 12, 2015. <http://www.ft.com/intl/cms/s/0/6f7c50de-b210-11e4-b380-00144feab7de.html#axzz47DxwUNvi>.
- <sup>42</sup> Aaron Stanley, “Q&A: US Challenges China Export Subsidies,” *Financial Times*, February 12, 2015. <http://www.ft.com/intl/cms/s/0/6f7c50de-b210-11e4-b380-00144feab7de.html#axzz47DxwUNvi>.
- <sup>43</sup> United States Office of the United States Trade Representative, *United States Launches Challenge to Extensive Chinese Export Subsidy Program*, February 2015. <https://ustr.gov/about-us/policy-offices/press-office/press-releases/2015/february/united-states-launches-challenge>.
- <sup>44</sup> Diane Bartz, “U.S. Says China to Scrap Some Export Subsidies,” Reuters, April 14, 2016. <http://www.reuters.com/article/us-usa-china-trade-idUSKCN0XB1UQ>.
- <sup>45</sup> Diane Bartz, “U.S. Says China to Scrap Some Export Subsidies,” Reuters, April 14, 2016. <http://www.reuters.com/article/us-usa-china-trade-idUSKCN0XB1UQ>.
- <sup>46</sup> Organisation for Economic Co-Operation and Development, “Outcomes from the High-Level Symposium on Excess Capacity and Structural Adjustment in the Steel Sector.” <http://www.oecd.org/sti/ind/steel-excess-capacity-outcomes.htm>.
- <sup>47</sup> Organisation for Economic Co-Operation and Development, “Outcomes from the High-Level Symposium on Excess Capacity and Structural Adjustment in the Steel Sector.” <http://www.oecd.org/sti/ind/steel-excess-capacity-outcomes.htm>.
- <sup>48</sup> World Steel Association, “March 2016 Crude Steel Production,” April 20, 2016. <https://www.worldsteel.org/media-centre/press-releases/2016/March-2016-crude-steel-production0.html>.
- <sup>49</sup> Nicole Goebel, “Steel Industry Urges Tough Action on China amid Overcapacity,” *Deutsche Welle*, February 15, 2016. <http://www.dw.com/en/steel-industry-urges-tough-action-on-china-amid-overcapacity/a-19049833>.
- <sup>50</sup> Global Steel Supply Chains, “Eurofer Calls on EU Bodies to Take Actions on Steel,” November 25, 2015. <http://steelsupplychains.com/eurofer-calls-on-eu-bodies-to-take-actions-on-steel-trade/>.
- <sup>51</sup> Organisation for Economic Co-Operation and Development, “Outcomes from the High-Level Symposium on Excess Capacity and Structural Adjustment in the Steel Sector.” <http://www.oecd.org/sti/ind/steel-excess-capacity-outcomes.htm>.
- <sup>52</sup> Organisation for Economic Co-Operation and Development, “Immediate Action Is Needed to Address Mounting Challenges in the Global Steel Sector.” <http://www.oecd.org/sti/ind/immediate-action-challenges-global-steel-sector.htm>.

- <sup>53</sup> Mark O'Hara, "Why China's Slowdown in Real Estate Affects US Steel Investors," *MarketRealist*, September 16, 2014. <http://marketrealist.com/2014/09/chinas-slowdown-real-estate-affects-u-s-steel-investors/>; Christian Shepherd and Tom Mitchell, "China's Steel Sector Hit by Losses," *Financial Times*, February 1, 2016. <http://www.ft.com/intl/cms/s/0/338b4394-c8aa-11e5-be0b-b7ece4e953a0.html#axzz3yvts657m>.
- <sup>54</sup> State Council of the People's Republic of China, *Li Keqiang Chairs the Executive Meeting of the State Council* [李克强主持召开国务院常务会议], January 24, 2016. [http://www.gov.cn/guowuyuan/2016-01/24/content\\_5035749.htm](http://www.gov.cn/guowuyuan/2016-01/24/content_5035749.htm). For an approximate English version, see State Council of the People's Republic of China, *Quick View: The State Council Executive Meeting on Jan 22*, January 25, 2016. [http://english.gov.cn/policies/infographics/2016/01/25/content\\_281475278290982.htm](http://english.gov.cn/policies/infographics/2016/01/25/content_281475278290982.htm).
- <sup>55</sup> Steel Industry Associations, "Comments on China's Steel Industry Adjustment Policy (2015 Revision)," April 20, 2015, 4. <http://www.steelnet.org/new/20150420.pdf>.
- <sup>56</sup> World Steel Association, "World Steel Short-Range Outlook 2016-2017," April 13, 2016. <https://www.worldsteel.org/media-centre/press-releases/2016/worldsteel-Short-Range-Outlook-2016-2017.html>.
- <sup>57</sup> World Steel Association, "Top Steel-Producing Companies 2014." <https://www.worldsteel.org/dms/internetDocumentList/downloads/statistics/Extended-listing-2014/document/Extended%20listing%202014.pdf>; Zacks Equity Research, "Steel Industry Stock Outlook - Jan. 2016," January 21, 2016. <http://www.zacks.com/commentary/68925/steel-industry-stock-outlook--jan-2016>.
- <sup>58</sup> United States Steel Corporation, "Press Release: United States Steel Corporation Reports 2016 First Quarter Results with Strong Liquidity and Positive Operating Cash Flow under Challenging Market Conditions," April 26, 2016. <https://www.ussteel.com/ussportal/home/newsroom/pressreleases?renderFrame=https://uss.mediaroom.com/index.php?s=32722&item=137081>.
- <sup>59</sup> Elizabeth Brotherton-Bunch, "Message to Congress: It's Time for Action on Steel Imports," April 14, 2016. <http://www.americanmanufacturing.org/blog/entry/message-to-congress-its-time-for-action-on-steel-imports>; Office of the U.S. Trade Representative and Department of Commerce, *Hearing on Global Steel Industry and Impact on U.S. Steel Industry and Market*, written testimony of Thomas J. Gibson, April 13, 2016, 1. <http://www.steel.org/~media/Files/AISI/Public%20Policy/Testimony/2016/AISI%20USTR-DOC%20Hearing%20Testimony.pdf?la=en>.
- <sup>60</sup> *Economist*, "A Corrosive Climate," January 30, 2016. <http://www.economist.com/news/business/21689600-overcapacity-has-worsened-woes-already-unprofitable-industry-corrosive-climate>.
- <sup>61</sup> Maria Armental, "U.S. Steel to Idle Plants, Lay off Workers," *Wall Street Journal*, March 18, 2016. <http://www.wsj.com/articles/u-s-steel-to-idle-plants-lay-off-workers-1458331894>.
- <sup>62</sup> U.S.-China Economic and Security Review Commission, *Hearing on China's Shifting Economic Realities and Implications for the United States*, written testimony of Terence P. Stewart, February 24, 2016. [http://www.uscc.gov/sites/default/files/Panel%203\\_Stewart%20statement\\_022416.pdf](http://www.uscc.gov/sites/default/files/Panel%203_Stewart%20statement_022416.pdf).
- <sup>63</sup> U.S. International Trade Commission, *Antidumping and Countervailing Duty Orders in Place*, January 14, 2016.
- <sup>64</sup> U.S.-China Economic and Security Review Commission, *Hearing on China's Shifting Economic Realities and Implications for the United States*, written testimony of Terence P. Stewart, February 24, 2016, 6.
- <sup>65</sup> Krista Hughes, "U.S. Steelmakers Complain China Skirting Steel Duties," Reuters, May 1, 2015. <http://www.reuters.com/article/usa-trade-steel-idUSL1N0XSIEM20150501>.
- <sup>66</sup> International Trade Administration, *Certain Cut-to-Length Carbon Steel Plate from the People's Republic of China: Initiation of Circumvention Inquiry on Antidumping Duty Order*, *Federal Register*, February 18, 2016. <https://www.federalregister.gov/articles/2016/02/18/2016-03418/certain-cut-to-length-carbon-steel-plate-from-the-peoples-republic-of-china-initiation-off#h-8>.
- <sup>67</sup> Inside U.S. Trade, China Trade Extra, "CBP Invokes 'Live Entry' Procedures for Selected AD, CVD Steel Shipments," March 3, 2016. <http://chinatradeextra.com/daily-news/cbp-invokes-live-entry-procedures-selected-ad-cvd-steel-shipments?destination=node/151227>.
- <sup>68</sup> Office of the United States Trade Representative, *Request for Comments and Notice of Public Hearing Concerning Policy Recommendations on the Global Steel Industry Situation and Impact on U.S. Steel Industry and Market*, *Federal Register*, March 4, 2016. <https://www.federalregister.gov/articles/2016/03/04/2016-04857/request-for-comments-and-notice-of-public-hearing-concerning-policy-recommendations-on-the-global>.
- <sup>69</sup> Inside U.S. Trade, World Trade Online, "Steel Caucus Plans April 14 Hearing Amid Furor over Global Overcapacity," April 4, 2016. <http://insidetrade.com/daily-news/steel-caucus-plans-april-14-hearing-amid-furor-over-global-overcapacity>.
- <sup>70</sup> Inside U.S. Trade, World Trade Online, "Steel Industry Groups Urge Cuts in Overcapacity, Enforcement of Trade Laws," March 31, 2016. <http://insidetrade.com/inside-us-trade/steel-industry-groups-urge-cuts-overcapacity-enforcement-trade-laws>; 2016 Congressional Steel Caucus, written testimony of Roger K. Newport, April 14, 2016, 3-4. <http://www.steel.org/~media/Files/AISI/Public%20Policy/Testimony/2016/Roger%20Newport%20House%20Steel%20Caucus%20Remarks%20April%202014%202016.pdf?la=en>; 2016 Congressional Steel Caucus, written testimony of Leo W. Gerard, April 14, 2016, 2-5; Office of the U.S. Trade Representative and Department of Commerce, *Hearing on Global Steel Industry and Impact on U.S. Steel Industry and Market*, written testimony of Tim Timken, April 12, 2016, 5. [http://www.steel.org/~media/Files/AISI/Public%20Policy/Testimony/2016/TimkenSteel%20Tim%20Remarks%20USTR\\_2016.pdf?la=en](http://www.steel.org/~media/Files/AISI/Public%20Policy/Testimony/2016/TimkenSteel%20Tim%20Remarks%20USTR_2016.pdf?la=en); and Office of the U.S. Trade Representative and Department of Commerce, *Hearing on Global Steel Industry and Impact on U.S. Steel Industry and Market*, written testimony of Conrad Winkler, April 12, 2016, 3. <http://www.steel.org/~media/Files/AISI/Public%20Policy/Testimony/2016/EVRAZ%20Winkler%20Comments%20April%202012%202016%20USTR.pdf?la=en>.
- <sup>71</sup> Office of the U.S. Trade Representative and Department of Commerce, *Hearing on Global Steel Industry and Impact on U.S. Steel Industry and Market*, written testimony of Conrad Winkler, April 12, 2016, 3. <http://www.steel.org/~media/Files/AISI/Public%20Policy/Testimony/2016/EVRAZ%20Winkler%20Comments%20April%202012%202016>

- [%20USTR.pdf?la=en](#); Office of the U.S. Trade Representative and Department of Commerce, *Hearing on Global Steel Industry and Impact on U.S. Steel Industry and Market*, written testimony of Charles W. Schmitt, April 12, 2016, 2. <http://www.steel.org/~media/Files/AISI/Public%20Policy/Testimony/2016/Schmitt041216Testimony.pdf?la=en>; Office of the U.S. Trade Representative and Department of Commerce, *Hearing on Global Steel Industry and Impact on U.S. Steel Industry and Market*, written testimony of Daniel Mull, April 12, 2016, 2. <http://www.steel.org/~media/Files/AISI/Public%20Policy/Testimony/2016/Apr%2012%20D%20Mull%20Testimony.pdf?la=en>.
- <sup>72</sup> Office of the U.S. Trade Representative and Department of Commerce, *Hearing on Global Steel Industry and Impact on U.S. Steel Industry and Market*, written testimony of Leo W. Gerard, April 14, 2016, 2–5, <http://www.usw.org/testimony/Gerard-Testimony-4-12-16.pdf>; Office of the U.S. Trade Representative and Department of Commerce, *Hearing on Global Steel Industry and Impact on U.S. Steel Industry and Market*, written testimony of Philip K. Bell, April 13, 2016, 4–5. <http://www.steel.org/~media/Files/AISI/Public%20Policy/Testimony/2016/Oral%20Testimony%20-%20USTR%20Overcapacity%20Investigation%20-%20Phil%20Bell%20SMA.pdf?la=en>; Office of the U.S. Trade Representative and Department of Commerce, *Hearing on Global Steel Industry and Impact on U.S. Steel Industry and Market*, written testimony of Jim Darsey, April 12, 2016, 3. <http://www.steel.org/~media/Files/AISI/Public%20Policy/Testimony/2016/Nucor%20Testimony%20of%20Jim%20Darsey%2041316.pdf?la=en>.
- <sup>73</sup> Inside U.S. Trade’s China Trade Extra, “Sen. Brown: No Consensus Yet in Steel Industry on Global Safeguard,” April 5, 2016. <http://chinatradeextra.com/daily-news/sen-brown-no-consensus-yet-steel-industry-global-safeguard>.
- <sup>74</sup> Office of the U.S. Trade Representative and Department of Commerce, *Hearing on Global Steel Industry and Impact on U.S. Steel Industry and Market*, written testimony of Douglas R. Matthews, April 12, 2016, 3. <http://www.steel.org/~media/Files/AISI/Public%20Policy/Testimony/2016/D%20Matthews%20Final%20Testimony.pdf?la=en>.
- <sup>75</sup> Lewis Leibowitz, “Industry’s Available International Trade Remedies Will Not Alter Global Realities,” *Steel Market Update*, April 20, 2016. <https://www.steelmarketupdate.com/news/8754-the-steel-industry-s-available-international-trade-remedies-will-not-alter-global-realities>.
- <sup>76</sup> U.S. Department of Commerce – Bureau of Export Administration, *The Effects of Imports of Iron Ore and Semi-Finished Steel on the National Security*, October 2001.
- <sup>77</sup> Eliza Patterson, “The US Provides Section 201 Relief for the American Steel Industry,” *Insights* (American Society of International Law) 7:4, March 19, 2002. <https://www.asil.org/insights/volume/7/issue/4/us-provides-section-201-relief-american-steel-industry>.
- <sup>78</sup> U.S. International Trade Commission, *Understanding Safeguard Investigations: Section 201, Trade Act of 1974 (Global Safeguard Investigations), Import Relief for Domestic Industries*. [https://www.usitc.gov/press\\_room/us\\_safeguard.htm](https://www.usitc.gov/press_room/us_safeguard.htm).
- <sup>79</sup> Office of the U.S. Trade Representative and Department of Commerce, *Hearing on Global Steel Industry and Impact on U.S. Steel Industry and Market*, written testimony of Leo W. Gerard, April 14, 2016, 2–5, <http://www.usw.org/testimony/Gerard-Testimony-4-12-16.pdf>.
- <sup>80</sup> Eliza Patterson, “The US Provides Section 201 Relief for the American Steel Industry,” *Insights* (American Society of International Law) 7:4, March 19, 2002. <https://www.asil.org/insights/volume/7/issue/4/us-provides-section-201-relief-american-steel-industry>; Lewis Leibowitz, “Industry’s Available International Trade Remedies Will Not Alter Global Realities,” *Steel Market Update*, April 20, 2016. <https://www.steelmarketupdate.com/news/8754-the-steel-industry-s-available-international-trade-remedies-will-not-alter-global-realities>.
- <sup>81</sup> Lewis Leibowitz, “Industry’s Available International Trade Remedies Will Not Alter Global Realities,” *Steel Market Update*, April 20, 2016. <https://www.steelmarketupdate.com/news/8754-the-steel-industry-s-available-international-trade-remedies-will-not-alter-global-realities>.
- <sup>82</sup> Organisation for Economic Co-Operation and Development, “Outcomes from the High-Level Symposium on Excess Capacity and Structural Adjustment in the Steel Sector.” <http://www.oecd.org/sti/ind/steel-excess-capacity-outcomes.htm>.
- <sup>83</sup> Office of the U.S. Trade Representative, *Press Release: Statement by U.S. Secretary of Commerce Penny Pritzker and U.S. Trade Representative Michael Froman Following the Conclusion of the High-Level Meeting on Excess Capacity and Structural Adjustment in the Steel Sector*, April 19, 2016. <https://ustr.gov/about-us/policy-offices/press-office/press-releases/2016/april/statement-secretary-pritzker-and-ustr>.
- <sup>84</sup> Organisation for Economic Co-Operation and Development, “Outcomes from the High-Level Symposium on Excess Capacity and Structural Adjustment in the Steel Sector.” <http://www.oecd.org/sti/ind/steel-excess-capacity-outcomes.htm>.
- <sup>85</sup> United States Steel Corporation, “Press Release: United States Steel Corporation Reports 2016 First Quarter Results with Strong Liquidity and Positive Operating Cash Flow under Challenging Market Conditions,” April 26, 2016. <https://www.ussteel.com/uss/portal/home/newsroom/pressreleases?renderFrame=https://uss.mediaroom.com/index.php?s=32722&item=137081>.
- <sup>86</sup> John W. Miller, “U.S. Steel Accuses China of Hacking,” *Wall Street Journal*, April 28, 2016. <http://www.wsj.com/articles/u-s-steel-accuses-china-of-hacking-1461859201>.
- <sup>87</sup> John W. Miller, “U.S. Steel Accuses China of Hacking,” *Wall Street Journal*, April 28, 2016. <http://www.wsj.com/articles/u-s-steel-accuses-china-of-hacking-1461859201>.
- <sup>88</sup> John W. Miller, “U.S. Steel Accuses China of Hacking,” *Wall Street Journal*, April 28, 2016. <http://www.wsj.com/articles/u-s-steel-accuses-china-of-hacking-1461859201>.
- <sup>89</sup> John W. Miller, “U.S. Steel Accuses China of Hacking,” *Wall Street Journal*, April 28, 2016. <http://www.wsj.com/articles/u-s-steel-accuses-china-of-hacking-1461859201>.
- <sup>90</sup> Sam Frizell, “Here’s What Chinese Hackers Actually Stole from U.S. Companies,” *Time*, May 20, 2014. <http://time.com/106319/heres-what-chinese-hackers-actually-stole-from-u-s-companies/>.

- <sup>91</sup> Inside U.S. Trade, China Trade Extra, “U.S. Says China Isn’t Living up to WTO Subsidy Notification Requirements, Including on Steel,” April 29, 2016. <http://chinatradeextra.com/daily-news/us-says-china-isnt-living-wto-subsidy-notification-requirements-including-steel>.
- <sup>92</sup> Doug Palmer, “U.S.-China Subsidy Slamfest at WTO,” *Politico*, April 28, 2016. <http://www.politico.com/tipsheets/morning-trade/2016/04/us-china-subsidy-slamfest-at-wto-house-passes-mtb-process-reform-bill-ustr-promises-action-plans-to-curb-intellectual-property-theft-214010>.
- <sup>93</sup> World Trade Organization, “Notifications under the Agreement on Subsidies and Countervailing Measures.” [https://www.wto.org/english/tratop\\_e/scm\\_e/notif\\_e.htm](https://www.wto.org/english/tratop_e/scm_e/notif_e.htm).
- <sup>94</sup> Inside U.S. Trade, China Trade Extra, “U.S. Says China Isn’t Living up to WTO Subsidy Notification Requirements, Including on Steel,” April 29, 2016. <http://chinatradeextra.com/daily-news/us-says-china-isnt-living-wto-subsidy-notification-requirements-including-steel>.
- <sup>95</sup> Mark Wagner, “China Eases Growth Slide with Debt-Driven Spending,” *Wall Street Journal*, April 15, 2016.
- <sup>96</sup> Tom Mitchell and Yuan Yang, “China Export Surge Points to Improving Economic Outlook,” *Financial Times*, April 12, 2016.
- <sup>97</sup> China’s National Bureau of Statistics via CEIC database.
- <sup>98</sup> Mark Wagner, “China Eases Growth Slide with Debt-Driven Spending,” *Wall Street Journal*, April 15, 2016.
- <sup>99</sup> Markit, “China Caixin Manufacturing PMI.” <https://www.markiteconomics.com/Public/Release/PressReleases?language=en>.
- <sup>100</sup> Caixin Purchasing Managers’ Index, “Caixin China General Manufacturing PMI,” April 1, 2016.
- <sup>101</sup> China’s National Bureau of Statistics via CEIC database.
- <sup>102</sup> The People’s Bank of China via CEIC database.
- <sup>103</sup> The People’s Bank of China via CEIC database.
- <sup>104</sup> Wendy Wu, “Bounce in China’s Economy May Be Short-Term Rebound, Not Long-Term Reversal: Top Think Tank,” *South China Morning Post*, April 19, 2016.
- <sup>105</sup> International Monetary Fund, “Global Financial Stability Report,” April 2016, 13–14.
- <sup>106</sup> International Monetary Fund, “Global Financial Stability Report,” April 2016, 13.
- <sup>107</sup> China’s National Bureau of Statistics via CEIC database.
- <sup>108</sup> Tom Orlik, “Three Signs That China’s Property Rebound Won’t Last,” Bloomberg Brief, April 19, 2016.
- <sup>109</sup> National Bureau of Statistics via CEIC database.
- <sup>110</sup> Lucy Cramer, “Pork Shortage in China Leads to Soaring Prices, Rush to Import,” *Wall Street Journal*, April 11, 2016. <http://www.wsj.com/articles/pork-shortage-in-china-leads-to-soaring-local-prices-and-increase-in-imports-1460369468>.
- <sup>111</sup> National Bureau of Statistics via CEIC database; Fred Gale and Daniel Marti, “China’s Hog Cycle Boosts U.S. Pork Exports,” *United States Department of Agriculture Economic Research Service*, March 1, 2012. <http://www.ers.usda.gov/amber-waves/2012-march/china%E2%80%99s-hog-cycle-boosts-us-pork-exports.aspx#.VyKpyFYrIdU>.
- <sup>112</sup> Ministry of Agriculture via CEIC database.
- <sup>113</sup> Ministry of Agriculture via CEIC database.
- <sup>114</sup> Capital Economics, “When Will Pork Price Inflation Peak?” April 26, 2016. <https://www.capitaleconomics.com/china-economics/china-economics-update/when-will-pork-price-inflation-peak-35061/>.
- <sup>115</sup> Lucy Cramer, “Pork Shortage in China Leads to Soaring Prices, Rush to Import,” *Wall Street Journal*, April 11, 2016. <http://www.wsj.com/articles/pork-shortage-in-china-leads-to-soaring-local-prices-and-increase-in-imports-1460369468>.
- <sup>116</sup> National Bureau of Statistics via CEIC database.
- <sup>117</sup> Lucy Cramer, “Pork Shortage in China Leads to Soaring Prices, Rush to Import,” *Wall Street Journal*, April 11, 2016. <http://www.wsj.com/articles/pork-shortage-in-china-leads-to-soaring-local-prices-and-increase-in-imports-1460369468>.
- <sup>118</sup> Niu Shuping and Naveen Thukral, “Sour Time for China’s Hog Farmers Swells Pork Imports,” CNBC, March 30, 2016. <http://www.cnbc.com/2016/03/30/reuters-america-sour-time-for-chinas-hog-farmers-swells-pork-imports.html>.
- <sup>119</sup> Niu Shuping and David Stanway, “Chinese Pig Farms Hit by New Pollution Regulations,” Reuters, August 6, 2015. <http://www.reuters.com/article/idUSL3N10H1RC20150806>.
- <sup>120</sup> Niu Shuping and David Stanway, “Chinese Pig Farms Hit by New Pollution Regulations,” Reuters, August 6, 2015. <http://www.reuters.com/article/idUSL3N10H1RC20150806>.
- <sup>121</sup> Niu Shuping and Naveen Thukral, “Sour Time for China’s Hog Farmers Swells Pork Imports,” CNBC, March 30, 2016. <http://www.cnbc.com/2016/03/30/reuters-america-sour-time-for-chinas-hog-farmers-swells-pork-imports.html>.
- <sup>122</sup> Lucy Cramer, “Pork Shortage in China Leads to Soaring Prices, Rush to Import,” *Wall Street Journal*, April 11, 2016. <http://www.wsj.com/articles/pork-shortage-in-china-leads-to-soaring-local-prices-and-increase-in-imports-1460369468>.
- <sup>123</sup> Niu Shuping and David Stanway, “China to End State Corn Stockpiling, Free up Prices,” Reuters, March 29, 2016. <http://www.reuters.com/article/us-china-corn-stockpiles-idUSKCN0WV06Z>.
- <sup>124</sup> Niu Shuping and David Stanway, “China to End State Corn Stockpiling, Free up Prices,” Reuters, March 29, 2016. <http://www.reuters.com/article/us-china-corn-stockpiles-idUSKCN0WV06Z>.
- <sup>125</sup> Liyan Qi, “Why Pigs Are Crucial to Understanding China’s Surprisingly Low Inflation,” *Wall Street Journal*, January 12, 2015. <http://blogs.wsj.com/chinarealtime/2015/01/12/pork-meals-put-out-to-pasture-with-chinas-anti-corruption-campaign/>; Lucy Cramer, “Pork Shortage in China Leads to Soaring Prices, Rush to Import,” *Wall Street Journal*, April 11, 2016. <http://www.wsj.com/articles/pork-shortage-in-china-leads-to-soaring-local-prices-and-increase-in-imports-1460369468>.
- <sup>126</sup> Hudson Lockett, “China Decants Pork Reserves as Prices of Pigs Fly,” *Financial Times*, May 4, 2016. <http://www.ft.com/intl/cms/s/0/8777ec96-11cf-11e6-91da-096d89bd2173.html#axzz47VPiBzJu>.
- <sup>127</sup> Hudson Lockett, “China Decants Pork Reserves as Prices of Pigs Fly,” *Financial Times*, May 4, 2016. <http://www.ft.com/intl/cms/s/0/8777ec96-11cf-11e6-91da-096d89bd2173.html#axzz47VPiBzJu>.

- <sup>128</sup> Lexin Cai et al., “China’s Astounding Appetite for Pork: Recent Trends and Implications for International Trade,” *University of Pennsylvania Wharton School Public Policy Initiative*, April 2, 2015. <http://publicpolicy.wharton.upenn.edu/live/news/644-chinas-astounding-appetite-for-pork-recent-trends>.
- <sup>129</sup> Lexin Cai et al., “China’s Astounding Appetite for Pork: Recent Trends and Implications for International Trade,” *University of Pennsylvania Wharton School Public Policy Initiative*, April 2, 2015. <http://publicpolicy.wharton.upenn.edu/live/news/644-chinas-astounding-appetite-for-pork-recent-trends>.
- <sup>130</sup> Stefani Kim, “High off the Hog,” *ChinaFile*, June 24, 2015. <https://www.chinafile.com/reporting-opinion/environment/chinas-pork-consumption>; National Chicken Council, “Per Capita Consumption of Poultry and Livestock, 1965 to Estimated 2016, in Pounds.” <http://www.nationalchickencouncil.org/about-the-industry/statistics/per-capita-consumption-of-poultry-and-livestock-1965-to-estimated-2012-in-pounds/>.
- <sup>131</sup> Stefani Kim, “High off the Hog,” *ChinaFile*, June 24, 2015. <https://www.chinafile.com/reporting-opinion/environment/chinas-pork-consumption>; Elise Potaka, “Big Pig Farms Bring Big New Source of Pollution to China,” *WVTF Radio*, January 21, 2016. <http://wvtf.org/post/big-pig-farms-bring-big-new-source-pollution-china#stream/0>.
- <sup>132</sup> Stefani Kim, “High off the Hog,” *ChinaFile*, June 24, 2015. <https://www.chinafile.com/reporting-opinion/environment/chinas-pork-consumption>.
- <sup>133</sup> Stefani Kim, “High off the Hog,” *ChinaFile*, June 24, 2015. <https://www.chinafile.com/reporting-opinion/environment/chinas-pork-consumption>.
- <sup>134</sup> Lexin Cai et al., “China’s Astounding Appetite for Pork: Recent Trends and Implications for International Trade,” *University of Pennsylvania Wharton School Public Policy Initiative*, April 2, 2015. <http://publicpolicy.wharton.upenn.edu/live/news/644-chinas-astounding-appetite-for-pork-recent-trends>; United States Department of Agriculture Foreign Agriculture Service, *Pork Selected Countries Summary*. <http://apps.fas.usda.gov/psdonline/psdReport.aspx?hidReportRetrievalName=Pork+Selected+Countries+Summary&hidReportRetrievalID=2609&hidReportRetrievalTemplateID=7>.
- <sup>135</sup> United States Department of Agriculture Foreign Agriculture Service, *Pork Selected Countries Summary*. <http://apps.fas.usda.gov/psdonline/psdReport.aspx?hidReportRetrievalName=Pork+Selected+Countries+Summary&hidReportRetrievalID=2609&hidReportRetrievalTemplateID=7>.
- <sup>136</sup> Stefani Kim, “High off the Hog,” *ChinaFile*, June 24, 2015. <https://www.chinafile.com/reporting-opinion/environment/chinas-pork-consumption>.
- <sup>137</sup> Stefani Kim, “High off the Hog,” *ChinaFile*, June 24, 2015. <https://www.chinafile.com/reporting-opinion/environment/chinas-pork-consumption>.
- <sup>138</sup> Stefani Kim, “High off the Hog,” *ChinaFile*, June 24, 2015. <https://www.chinafile.com/reporting-opinion/environment/chinas-pork-consumption>.
- <sup>139</sup> Elise Potaka, “Big Pig Farms Bring Big New Source of Pollution to China,” *WVTF Radio*, January 21, 2016. <http://wvtf.org/post/big-pig-farms-bring-big-new-source-pollution-china#stream/0>.
- <sup>140</sup> United States Department of Agriculture Foreign Agriculture Service, *Pork Selected Countries Summary*. <http://apps.fas.usda.gov/psdonline/psdQuery.aspx>; Niu Shuping and Naveen Thukral, “Sour Time for China’s Hog Farmers Swells Pork Imports,” *CNBC*, March 30, 2016. <http://www.cnbc.com/2016/03/30/reuters-america-sour-time-for-chinas-hog-farmers-swells-pork-imports.html>; Mamta Badkar, “14 Facts about the Staggeringly Huge Chinese Pork Industry,” *Business Insider*, May 29, 2013. <http://www.businessinsider.com/chinese-pork-industry-facts-2013-5>.
- <sup>141</sup> Niu Shuping and Naveen Thukral, “Sour Time for China’s Hog Farmers Swells Pork Imports,” *CNBC*, March 30, 2016. <http://www.cnbc.com/2016/03/30/reuters-america-sour-time-for-chinas-hog-farmers-swells-pork-imports.html>.
- <sup>142</sup> National Hog Farmer, “China’s Pork Imports Record Large in 2015,” February 15, 2016. <http://nationalhogfarmer.com/marketing/china-s-pork-imports-record-large-2015>; Amy Nordrum, “China Tightens Rules as US Pork Producers Push More Processed and Refrigerated Meats,” *International Business Times*, November 16, 2015. <http://www.ibtimes.com/china-tightens-rules-us-pork-producers-push-more-processed-refrigerated-meats-2183332>.
- <sup>143</sup> U.S.-China Economic and Security Review Commission, Chapter 1, Section 4, “China’s Agriculture Policy, Food Regulation, and the U.S.-China Agriculture Trade,” in *2013 Annual Report to Congress*, November 2013, 175.
- <sup>144</sup> Shruti Date Singh, “U.S. Is Missing out on China’s Pork Boom Because its Pigs Are on Muscle Drugs,” *Bloomberg*, August 11, 2015. <http://www.bloomberg.com/news/articles/2015-08-11/pigs-using-muscle-drug-means-u-s-missing-china-pork-import-boom>; U.S.-China Economic and Security Review Commission, Chapter 1, Section 4, “China’s Agriculture Policy, Food Regulation, and the U.S.-China Agriculture Trade,” in *2013 Annual Report to Congress*, November 2013, 175.
- <sup>145</sup> Shruti Date Singh, “China Culling 100 Million Hogs Means Record Pork Imports,” *Bloomberg*, August 18, 2015. <http://www.bloomberg.com/news/articles/2015-08-18/china-culling-100-million-hogs-means-record-pork-imports>.
- <sup>146</sup> Shruti Singh, “China to Lift Restrictions on U.S. Pork-Processing Plants,” *Bloomberg*, October 22, 2015. <http://www.bloomberg.com/news/articles/2015-10-22/china-agrees-to-lift-restrictions-on-u-s-pork-processing-plants>.
- <sup>147</sup> Shruti Date Singh, “U.S. Is Missing out on China’s Pork Boom Because its Pigs Are on Muscle Drugs,” *Bloomberg*, August 11, 2015. <http://www.bloomberg.com/news/articles/2015-08-11/pigs-using-muscle-drug-means-u-s-missing-china-pork-import-boom>.
- <sup>148</sup> Philip Seng, “Access to China Key Factor in Maintaining Meat Export Growth,” *U.S. Meat Export Federation*, July 30, 2015. <http://www.usmef.org/news-statistics/member-news-archive/access-to-china-key-factor-in-maintaining-meat-export-growth/>.
- <sup>149</sup> U.S.-China Economic and Security Review Commission, Chapter 1, Section 4, “China’s Agriculture Policy, Food Regulation, and the U.S.-China Agriculture Trade,” in *2013 Annual Report to Congress*, November 2013, 176.
- <sup>150</sup> U.S.-China Economic and Security Review Commission, Chapter 1, Section 4, “China’s Agriculture Policy, Food Regulation, and the U.S.-China Agriculture Trade,” in *2013 Annual Report to Congress*, November 2013, 177.

- 
- <sup>151</sup> U.S.-China Economic and Security Review Commission, Chapter 1, Section 4, “China’s Agriculture Policy, Food Regulation, and the U.S.-China Agriculture Trade,” in *2013 Annual Report to Congress*, November 2013, 175.
- <sup>152</sup> U.S.-China Economic and Security Review Commission, Chapter 1, Section 4, “China’s Agriculture Policy, Food Regulation, and the U.S.-China Agriculture Trade,” in *2013 Annual Report to Congress*, November 2013, 177.
- <sup>153</sup> Shruti Singh, “China to Lift Restrictions on U.S. Pork-Processing Plants,” Bloomberg, October 22, 2015. <http://www.bloomberg.com/news/articles/2015-10-22/china-agrees-to-lift-restrictions-on-u-s-pork-processing-plants>.
- <sup>154</sup> United States Meat Export Federation, “Recent Plant Relistings Expand Opportunities for U.S. Pork in China,” November 16, 2015. <http://nationalhogfarmer.com/marketing/recent-plant-relistings-expand-opportunities-us-pork-china>; Philip Seng, “Access to China Key Factor in Maintaining Meat Export Growth,” *U.S. Meat Export Federation*, July 30, 2015. <http://www.usmef.org/news-statistics/member-news-archive/access-to-china-key-factor-in-maintaining-meat-export-growth/>.
- <sup>155</sup> Lucy Cramer, “Pork Shortage in China Leads to Soaring Prices, Rush to Import,” *Wall Street Journal*, April 11, 2016. <http://www.wsj.com/articles/pork-shortage-in-china-leads-to-soaring-local-prices-and-increase-in-imports-1460369468>.