

U.S.-China Economic and Security Review Commission

Economics and Trade Bulletin



August 8, 2016

Highlights of this Month's Edition

- **Bilateral trade:** Weaker imports cause the U.S. goods deficit with China to fall 5.7 percent year-on-year in the first half of 2016; U.S. service exports to China reach record high, buoyed by high Chinese tourism spending in the United States.
- **Bilateral policy issues:** The United States and the EU fault China for lack of transparency at the WTO and cite concerns over delayed Chinese economic reform; the United States argues against granting China automatic market economy status in December; USTR is challenging China's raw materials export restrictions at the WTO.
- **Quarterly review of China's economy:** In the second quarter of 2016, GDP growth held steady from the previous quarter at 6.7 percent as Beijing again turned to stimulus measures to boost the economy.
- **Policy trends in China's economy:** Chinese government approves debt-for-equity swap trials despite reservations from major banks; news portals shut down for violating China's original news reporting prohibition.
- **Sector focus – Market barriers to U.S. drugs, medical devices, and medical services:** China's aging population drives expansion in the health industry, but numerous market barriers limit access for U.S. firms.

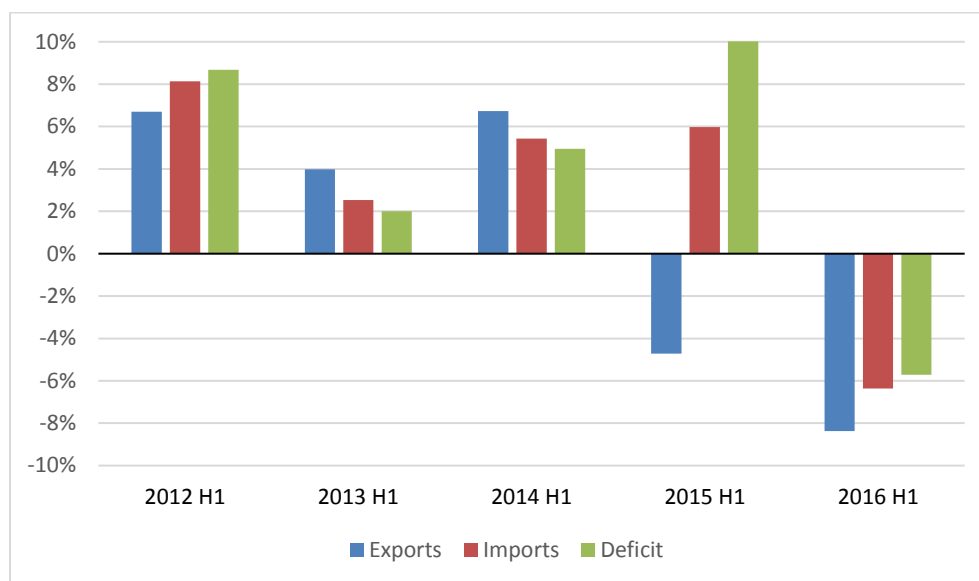
Bilateral Trade

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

In the first half of 2016, U.S. goods trade deficit with China fell 5.7 percent year-on-year due to weaker imports and exports (see Figure 1). U.S. imports from China in the first half of 2016 fell 6.4 percent year-on-year—a sharp contrast from the last four years.¹ China's economic slowdown contributed to a 8.4 year-on-year decline in U.S. export growth in 2016 H1, continuing a trend started in 2015.² Due to falling imports and exports in the U.S.-China trade, Canada remained the largest U.S. trading partner this year, accounting for 15.3 percent of total U.S. trade in the first half of 2016, followed by China at 14.9 percent and Mexico at 14.6 percent.³

While the second quarter recovered slightly from the typically sluggish growth in the first quarter, trade is down across the board. In the second quarter of 2016, imports grew 5.7 percent quarter-on-quarter, while exports grew only 3.2 percent quarter-on-quarter, leading the trade deficit to grow by 6.6 percent quarter-on-quarter. But a comparison to last year's second quarter figures found that exports are down 6.3 percent and imports fell 6.1 percent.⁴

Figure 1: First Half Change in U.S. Exports, Imports, and the Trade Deficit with China, 2012–2016
(year-on-year)



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

U.S. Imports from China Fall

The decline in U.S. trade with China in the first half of 2016 was reflected across the top five export and import categories. Computer and electronic products, 33.4 percent of total U.S. imports from China in the first half of 2016, fell 8.7 percent year-on-year (see Table 1). Imports of electric equipment, appliances, and components, the second-most imported product category, fell 4.5 percent, and commodities fell 1.6 percent. The decline in these three categories, which together account for nearly 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, accounting for 28.2 percent of total exports in the second quarter of 2016. While transportation equipment exports grew 6.2 percent year-on-year in the second quarter, the growth in this category was not able to offset the sharp drop in the first quarter, resulting in an overall 6.6 year-on-year decline in the first half of 2016.⁵ Other leading U.S. exports, including chemicals, agricultural products, and machinery, except electrical, all fell in the first half of 2016 at 4.1 percent, 25.8 percent, and 11 percent respectively.

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 Q2'15 (%)		Imports	Share of total (%)	Change over Q2'15 (%)
<i>Quarter 2 (Apr-Jun'16)</i>				<i>Quarter 2 (Apr-Jun'16)</i>			
Transportation Equipment	7,323.8	28.2%	6.2%	Computer and Electronic Products	37,022.26	33.9%	-8.0%
Computer & Electronic Products	4,228.0	16.3%	0.7%	Electrical Equipment, Appliances, and Component	9,843.3	9.0%	-5.9%
Chemicals	3,380.5	13.0%	-6.4%	Machinery, Except Electrical	8,014.6	7.3%	-1.5%
Machinery, Except Electrical	2,134.1	8.2%	-11.6%	Miscellaneous Manufactured			
Waste And Scrap	1,297.8	5.0%	-25.0%	Commodities	7,971.1	7.3%	-4.2%
Other	7,643.7	29.4%	-	Apparel and Accessories	6,399.6	5.9%	-6.0%
Total	26,008.1	100.0%	-6.3%	Other	39,836	36.5%	-
				Total	109,087.38	100.0%	-6.1%
<i>Year-to-date (thru Jun'16)</i>				<i>Year-to-date (thru Jun'16)</i>			
Transportation Equipment	11,575.0	22.6%	-6.6%	Computer and Electronic Products	70,833.2	33.4%	-8.7%
Computer & Electronic Products	8,297.1	16.2%	1.0%	Electrical Equipment, Appliances, and Component	18,953.1	8.9%	-4.5%
Chemicals	6,557.9	12.8%	-4.1%	Commodities	15,947.7	7.5%	-1.6%
Agricultural Products	4,505.8	8.8%	-25.6%	Machinery, Except Electrical	15,434.5	7.3%	-3.5%
Machinery, Except Electrical	4,238.7	8.3%	-11.0%	Apparel and Accessories	13,067.0	6.2%	-6.5%
Other	16,046.6	31.3%	-	Other	78,011	36.8%	-
Total	51,221.2	100.0%	-8.4%	Total	212,246.6	100.0%	-6.4%

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

Advanced Technology Products

The U.S. trade deficit with China in advanced technology products (ATP) reached \$48.6 billion in the first half of 2016, a \$6.2 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 half of 2016. While large, ICT imports fell 10 percent year-on-year in the first half of 2016, contributing to a slowing deficit.

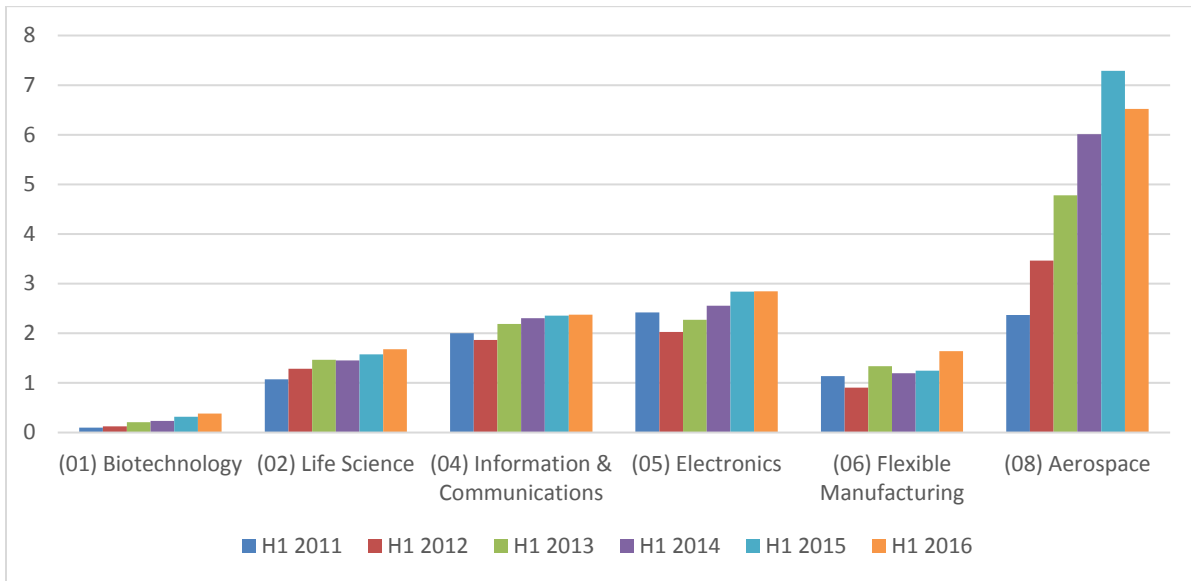
Table 2: ATP Trade through June 2016
(US\$ millions)

	Monthly			Cumulative year-to-date			
	Exports	Imports	Balance Jun'16	Exports	Imports	Balance 2016	Balance 2015
TOTAL	3,426	12,245	-8,819	15,987	64,591	-48,604	-54,830
(01) Biotechnology	90	10	80	385	62	323	261
(02) Life Science	333	218	115	1,676	1,239	437	398
(03) Opto-Electronics	37	501	-464	223	2,808	-2,585	-2,644
(04) Information & Communications	378	10,991	-10,613	2,374	57,482	-55,108	-61,501
(05) Electronics	444	322	122	2,846	1,833	1,013	1,068
(06) Flexible Manufacturing	211	79	132	1,640	483	1,157	781
(07) Advanced Materials	19	28	-9	122	173	-51	-116
(08) Aerospace	1,908	84	1,824	6,518	451	6,067	6,833
(09) Weapons	0	12	-12	2	60	-58	-57
(10) Nuclear Technology	4	0	4	200	1	199	148

Source: U.S. Census Bureau. (Washington, DC: U.S. Department of Commerce, Foreign Trade Division, August 2016).
<http://www.census.gov/foreign-trade/statistics/product/atp/2016/06/ctryatp/atp5700.html>.

Aerospace exports remain the largest U.S. ATP export sector, accounting for 40.8 percent of total ATP exports in the first half of 2016, followed by electronics, and ICT.⁶ Together these three sectors made up 73.4 percent of total ATP exports. Aerospace exports to China have been growing rapidly since 2011 to reach a high of \$7.3 billion in the first half of 2015. But aerospace exports fell 10.6 percent year-on-year in the first half of 2016 to \$6.5 billion (see Figure 2).⁷ Electronics and ICT exports plateaued, falling less than 1 percent year-on-year. As a bright spot, biotechnology, life sciences, and flexible manufacturing exports grew at 20.7 percent, 6.3 percent, and 31.5 percent year-on-year respectively.⁸

Figure 2: Five Largest U.S. ATP Exports to China in the First Half of the Year, 2011–2016
(US\$ Billions)

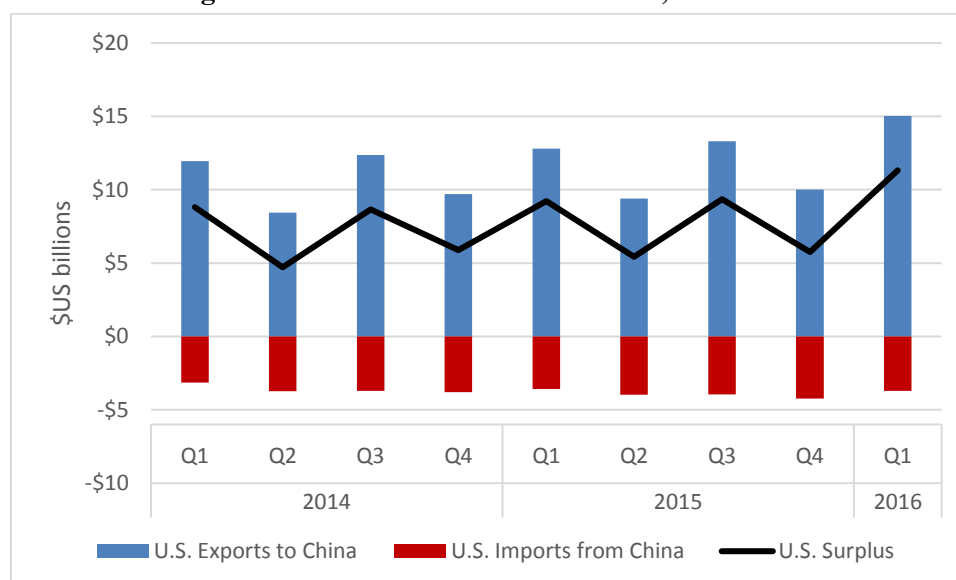


Source: U.S. Census Bureau. (Washington, DC: U.S. Department of Commerce, Foreign Trade Division, August 2016).
<http://www.census.gov/foreign-trade/statistics/product/atp/2016/06/ctryatp/atp5700.html>.

U.S. Services Exports to China Reach New High

The first quarter of 2016 saw U.S. service exports reach an all-time quarterly high of \$15 billion. This was a 17 percent increase year-on-year. As Figure 3 shows, this rise in exports resulted in a service trade surplus of \$11.3 billion, the highest quarterly balance in at least two years. Overall, in the first quarter of 2016 the U.S. balance in service exports with China increased 23 percent year-on-year. Chinese service exports to the United States declined from their record high in the fourth quarter of 2015 from \$4.2 billion to \$3.7 billion, a 13 percent decrease quarter-on-quarter and a 4 percent drop year-on-year.

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



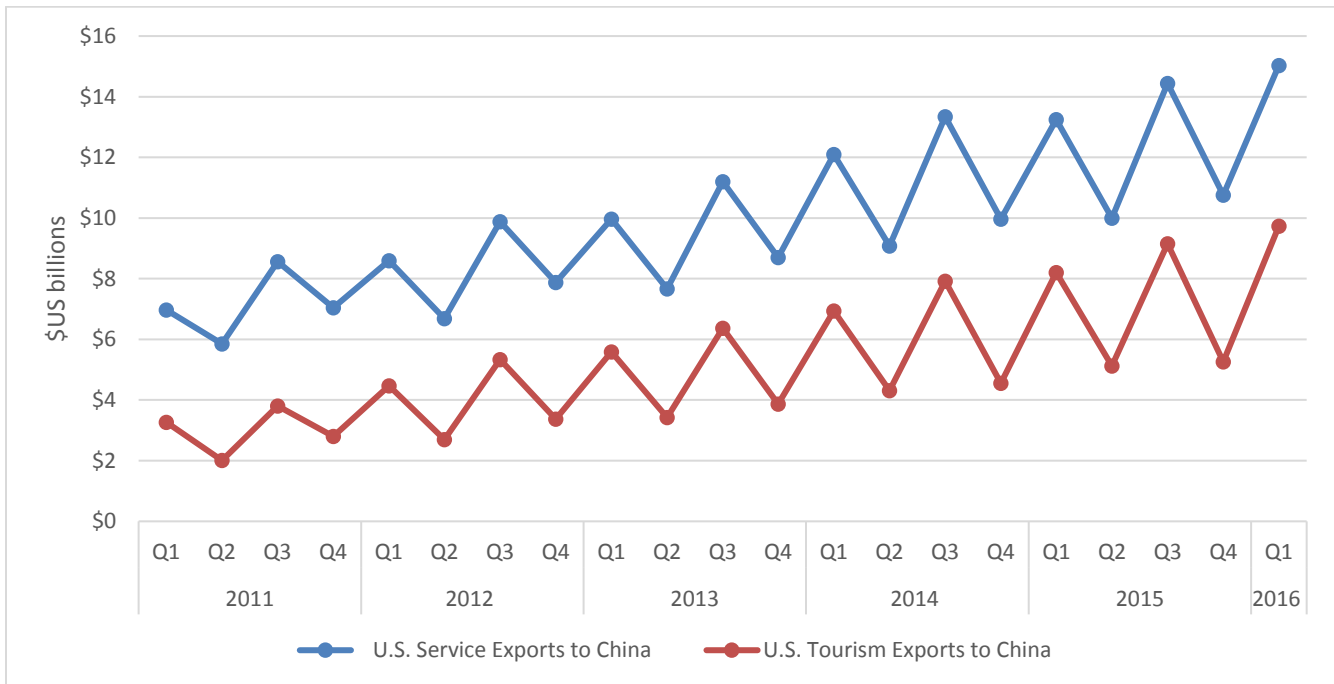
Source: U.S. Department of Commerce – Bureau of Economic Analysis, *U.S. Trade in Goods and Services by Selected Countries and Areas, 1999-Present*, U.S. Department of Commerce, Foreign Trade Division, July 2016.

As seen in Figure 4, U.S. service exports to China are highly seasonal, driven principally by Chinese tourism to the United States. Chinese tourism spending in the United States tends to peak in the first and third quarters, likely due to Chinese students’ arrival and tuition payments, both of which are classified as travel and tourism spending.* For the first quarter of 2016, tourism exports accounted for 65 percent of all U.S. service exports to China and grew 19 percent year-on-year (from \$8.2 billion to \$9.7 billion). Tourism’s share of U.S. service exports to China has steadily increased since 2011 (see Figure 5), capping off at 57 percent in 2015. Chinese payments for the use of U.S. intellectual property declined significantly from \$1.47 billion in the fourth quarter of 2015 to \$1.37 in the first quarter of 2016 (a decline of 7 percent quarter-on-quarter and a 12 percent year-on-year). Chinese services exports to the United States dropped slightly across most sectors from the previous quarter, but declined most precipitously in the “unclassified business services” category,† which fell 16 percent from \$1.14 billion to \$965 million quarter-on-quarter, but rose 4 percent year-on-year.

* For more on Chinese tourism in the United States, see Matt Snyder, “Chinese Tourism and Hospitality Investment in the United States,” *U.S.-China Economic and Security Review Commission*, July, 25, 2016. <http://www.uscc.gov/Research/chinese-tourism-and-hospitality-investment-united-states>.

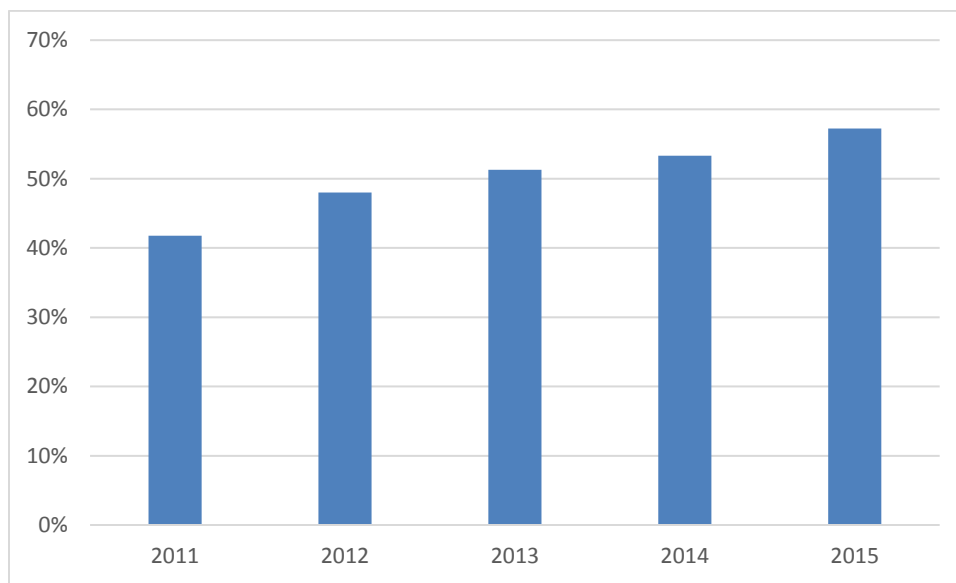
† This category is a catch-all that captures all service sectors not explicitly reported in U.S. trade statistics; it typically peaks in the fourth quarter of every year and declines in the subsequent first quarter.

Figure 4: U.S. Total Service Exports and Tourism Exports to China, 2011–2016



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, July 2016.

Figure 5: Chinese Tourism Spending as Share of Total U.S. Service Exports to China, 2011–2015



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, July 2016.

Bilateral Policy Issues

U.S. and EU Raise Concerns over Lack of Chinese Reforms at World Trade Organization

As the World Trade Organization (WTO) issued a report reviewing Chinese trade policies (the Trade Policy Review, or TPR), the United States and the EU expressed concern that the pace of economic reform in China has slowed and that some Chinese practices still benefit Chinese firms over international competitors.* While the United States had expressed hope that China would accelerate the pace of reform during China's 2014 TPR, this year the Office of the United States Trade Representative (USTR) remarked that "over the past year ... as growth in China's economy has slowed, the United States has sensed an increasing reluctance among China's economic planners to pursue economic reforms. In addition, more and more U.S. enterprises have been expressing concern about a less welcoming business and regulatory environment for foreign enterprises."⁹ The EU similarly criticized China for delaying reforms that would provide greater openness and even backsliding on progress, noting that it was "somewhat concerned with the pace these reforms are taking," and that it sees "a tendency of China to backtrack on promised reforms."¹⁰

Both the United States and the EU called out China for failing to provide the WTO with sufficient information on its economic programs, a recurring points of friction between the United States and China.¹¹ Under WTO rules, China is required to notify the WTO of subsidies currently in effect on an annual basis.¹² Since joining the WTO in 2001, China has very rarely provided the WTO with subsidy notifications in a timely fashion; in fact, it has done so on only three occasions.¹³ When China does provide information on its government subsidies, it does not report incentives offered below the central government level, a practice that excludes many programs run by provincial and municipal governments.¹⁴ The United States has asserted that China's notifications are "grossly incomplete" and exclude subsidy programs to overcapacity sectors such as steel.¹⁵ This failure to notify prevents the WTO from comprehensively reviewing Chinese economic policy. China's most recent subsidy notification was submitted to the WTO in 2015 and covered China's activity from 2009 to 2014. The WTO noted that this notification contained only 30 new subsidies, excluded one program previously notified to the WTO that the WTO believes is still in effect, as well as several other policies known to be operational.¹⁶ The United States and the EU also criticized China for failing to translate regulations.¹⁷ Under China's accession agreement, it is required to provide translations—in English, French, or Spanish—of regulatory measures that affect trade, but has failed to do so in a timely matter, often providing translations years after a measure has taken effect.¹⁸ This lack of published, translated Chinese documents limits the WTO's ability to fully review China's economic policy. In the most recent TPR, the WTO noted it was unable to identify many Chinese incentive programs due to an absence of English-language documents or an itemized central budget.¹⁹

Beyond concerns regarding the pace of reform and transparency, the USTR identified a wide array of Chinese policies designed to "skew the playing field in favor of domestic enterprises," including export duties on raw material inputs, value-added tax rebates on steel exports, technology transfer initiatives, and prohibition of foreign investment in China's movie market.²⁰ The WTO review document struck a more positive tone regarding the direction of Chinese reform, noting that "the [Chinese] authorities are intent on continuing the process of Chinese reform," but offered support for some of the United States' more specific concerns.²¹ The WTO stated that technology transfer is "at the core of China's foreign direct investment policy," and noted the continued restrictions on foreign investment in the Chinese film industry.²² China, for its part, remarked that since the last WTO review it has "driven and expanded its opening up to a new degree of depth," and strengthened intellectual property rights protections.²³

* As part of an effort to increase transparency of trade-related government policy, the WTO regularly reviews the regulations of member countries that may impact trade, a process known as the trade policy review. As one of the largest economies, China is typically reviewed every two years. World Trade Organization, "Trade Policy Reviews: Ensuring Transparency." https://www.wto.org/english/thewto_e/whatis_e/tif_e/agrm11_e.htm.

USTR Indicates China Will Not Receive Automatic Market Economy Status in December

In addition to its remarks regarding China's TPR, in July the USTR also indicated for the first time that the United States would not automatically grant China market economy status at the end of this year, according to a WTO official.²⁴ Under a provision in China's WTO accession protocol, China agreed that for 15 years, countries could automatically use nonmarket methodologies when applying antidumping duties on Chinese goods, which in many cases results in higher duties. This provision, paragraph 15(a)(ii) of Section 15, is set to expire in December 2016. When China pointed to this provision's expiration at a recent WTO meeting, the United States responded that under China's accession protocol, market economy status is not automatically promised after December and would be based on "facts on the ground."²⁵ The United States argued that China would only fully win market economy status from the United States once it had fulfilled the necessary criteria under U.S. law.²⁶ Surprisingly, the Chinese official present at the meeting reportedly agreed with this argument, stating that the expiration of the protocol did not require member countries to automatically grant China market economy status. Still, he asserted that after December, countries such as the United States would no longer have a legal basis to apply nonmarket antidumping methodologies to China and that countries that did so would be in violation of the WTO antidumping agreement.²⁷

While the United States took its first public stance against automatically granting China market economy status, in the EU the question of whether to grant China market economy status has been the subject of significant debate. The European Commission's legal services division has determined that the EU must grant China market economy status by the end of the year according to China's WTO accession protocol.²⁸ To do so, the commission must gain the support of the European Parliament; however, the parliament has voiced its disapproval and in May voted against granting China market economy status.²⁹

European manufacturers, particularly steel firms and workers, oppose granting China market economy status on the grounds that Chinese financial institutions direct finance to overcapacity sectors, resulting in overproduction and low-price Chinese products flooding the marketplace.³⁰ The EU currently has 52 antidumping duties in place against China, mostly in steel, mechanical engineering, chemicals, and ceramics.³¹ According to the European Commission, granting China market economy status would reduce duties by 27 percentage points on average, and cost Europe 33,000 to 77,000 jobs in the short run and up to 188,000 in the long run.³² This threat posed to European manufacturers makes them reluctant to support granting China market economy status without a way to credibly prevent dumping by Chinese firms. To this end, EU Trade Commissioner Cecile Malmstrom has noted it is "politically unrealistic" to grant China market economy status without mitigating measures.³³

One such measure is an alternate methodology to determine antidumping duties based on production prices in third-party countries. In March, the EU lost a case at the WTO challenging the application of this methodology against Argentine biodiesel.³⁴ The decision faulted the EU for not basing its antidumping duties on records kept by the Argentine company or prices in Argentina overall. The EU has appealed the decision, but if the WTO rules that the EU must base its duties on Argentine prices, it will cast doubt on the EU's ability to levy antidumping duties against Chinese products based on production prices outside of China. This would significantly complicate the EU's ability to easily levy duties against Chinese products, and would remove a key tool meant to cushion EU firms from below-cost Chinese goods, eroding support for granting China market economy status. The WTO decision on the EU appeal will likely be reached by the end of September.³⁵

United States Challenges Chinese Export Restrictions on Raw Materials

On July 13, 2016, the United States launched a trade enforcement action against China at the WTO over its use of export duties on nine raw materials.³⁶ In its request for consultations, USTR officials said the duties, which range from 5 to 20 percent, impose on U.S. manufacturers production costs Chinese manufacturers do not have to pay, encouraging companies to locate operations in China.³⁷ The nine raw materials—antimony, cobalt, copper, graphite,

* The six criteria are: currency convertibility; free bargaining for wages; an open foreign investment regime; the degree to which the government controls the means of production; the extent of government control of resource allocation, price setting, and production output; and other appropriate factors. U.S. Department of Commerce, *Fact Sheet: The People's Republic of China's Request for Review of Non-Market Economy Status*, 2006. <http://enforcement.trade.gov/download/prc-nme-status/prc-nme-status-factsheet.pdf>.

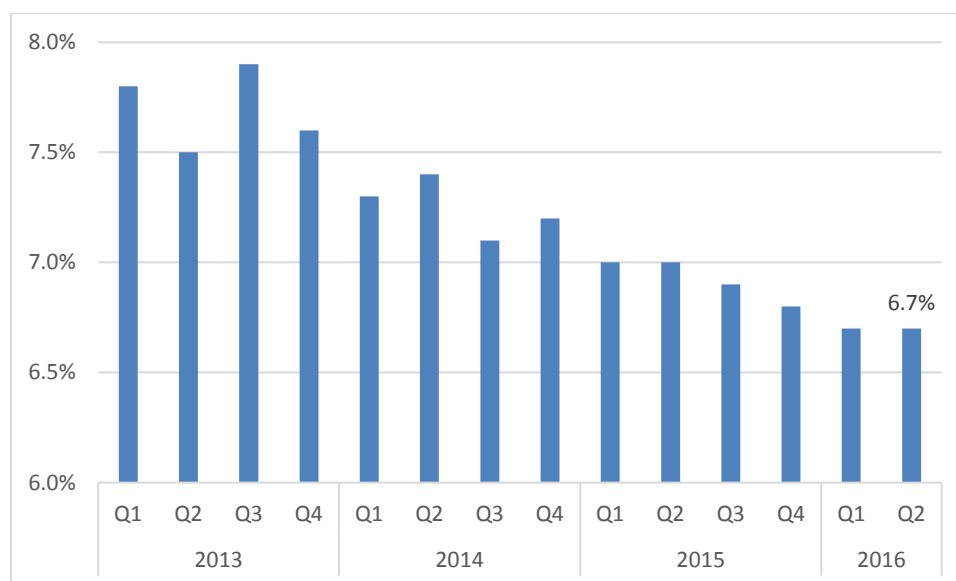
lead, magnesia, talc, tantalum, and tin—are key inputs for high-value products in sectors important for the U.S. economy, including aerospace, automotive, electronics, and chemicals.³⁸ The USTR said the export duties are inconsistent with provisions of China’s WTO accession protocol, where it committed to eliminate export duties for all products unless specified in the protocol’s annex; the raw materials named in the case are not included in the annex of exceptions.³⁹

On July 19, the United States and the EU filed a joint WTO challenge over China’s export restrictions on raw materials, broadening the United States’ July 13 request for consultations.⁴⁰ The new request added chromium and indium to the original list of raw materials subject to export duties and challenged China’s quotas on exports of antimony, indium, magnesia, talc, and tin.⁴¹ China’s Ministry of Commerce defended the restrictions, noting, “They are part of comprehensive measures to strengthen the protection of the ecological environment and are in line with WTO rules.”⁴² This challenge by the United States and the EU marks the third time the two parties have taken China to the WTO over export restrictions on raw materials.⁴³ The previous cases, filed in 2012 and 2014, involved rare earths and other raw materials such as bauxite and zinc.⁴⁴ In both cases, the WTO ruled that China’s export duties were inconsistent with its accession protocol and rejected China’s defense that its export restraints protected the environment.*⁴⁵

Quarterly Review of China’s Economy

According to official data released by China’s National Bureau of Statistics, in the second quarter of 2016, China’s economy grew 6.7 percent, the same rate as in the previous quarter, its weakest pace of expansion since 2009 (see Figure 6).⁴⁶ Key economic indicators show the government’s hand in stabilizing the economy. Industrial production and retail sales rose, buoyed by government stimulus, while fixed asset investment weakened. Based on China’s 2016 Q2 gross domestic product (GDP), the International Monetary Fund (IMF) revised its forecast for China’s growth in 2016 from 6.5 percent to 6.6 percent.⁴⁷

Figure 6: China’s GDP Growth, 2013–2016 Q2
(year-on-year)

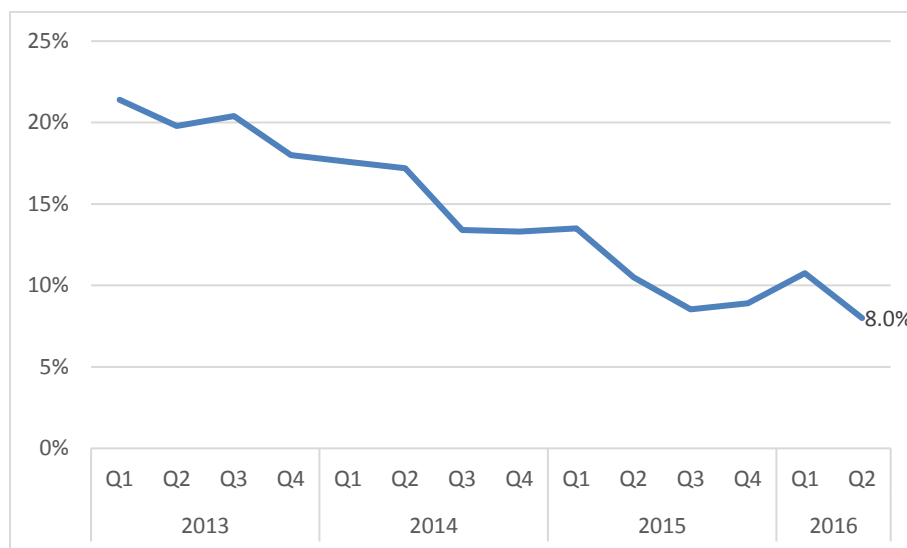


Source: China’s National Bureau of Statistics via CEIC database.

* For example, in the raw materials case, the panel report stated, “The difficulty with China’s contention is that export restrictions generally do not internalize the social environmental costs of EPRs’ [energy-intensive, highly polluting, resource-based products] production in the domestic economy. This is because export restrictions reduce the domestic price of EPRs and therefore they stimulate, instead of reduce, further consumption of polluting EPR products.” World Trade Organization, *China – Measures Related to the Exportation of Various Raw Materials*, DS394, July 5, 2011, 163. https://www.wto.org/english/tratop_e/dispu_e/394_395_398r_e.pdf.

Conditions in China’s industrial sector have weakened: in the second quarter of 2016, fixed asset investment—a proxy for infrastructure and manufacturing spending—grew 8 percent year-on-year, down from 10.7 percent in the first quarter (see Figure 7).⁴⁸ Investment has largely accrued to the state sector; during the second quarter of 2016, state sector investment expanded 23 percent year-on-year, while private investment growth slowed to a record low of 2.8 percent.⁴⁹

Figure 7: Fixed-Asset Investment, 2013–2016 Q2
(year-on-year)



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

The recovery in the steel-intensive property market during the first half of 2016 saw steel rebar prices rise as unanticipated new demand and low inventories created pockets of supply deficit.⁵⁰ The rebound in steel prices, up more than 50 percent during the first four months of 2016, led mills to restart or increase production, despite tremendous overcapacity.⁵¹ As a result, Chinese steelmakers turned a net profit of \$1.9 billion (renminbi [RMB] 12.6 billion) in the first half of 2016, more than four times the amount from the same period a year ago.⁵² Nonetheless, slowing property investment growth in the first half of 2016 indicates that the stimulus-driven recovery in the property sector is tapering off.⁵³ Property investment from January to June 2016 rose 6.1 percent year-on-year, slowing from an increase of 7 percent from January to May 2016.⁵⁴ In June, property investment was a mere 3.5 percent increase from a year ago, compared with 6.6 percent in May.⁵⁵

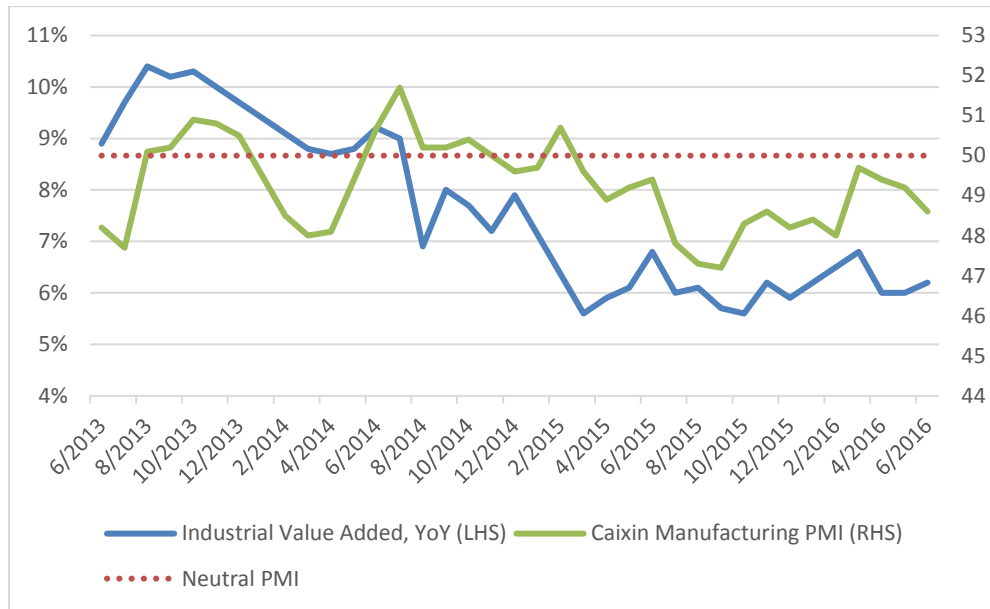
Caixin’s unofficial estimate showed China’s manufacturing Purchasing Managers’ Index (PMI) at 48.6 in June 2016, down from 49.2 in May, the third monthly decline* in a row (see Figure 8).⁵⁶ Caixin’s manufacturing PMI is based on monthly responses to questionnaires sent to purchasing executives from mostly private, small and medium-sized enterprises.[†]⁵⁷ China’s official PMI, compiled by the National Bureau of Statistics, tracks larger state-owned companies and generally shows a stronger reading than the private PMIs.⁵⁸ However, analysts’ expectations were upended in July, when the Caixin PMI rose to 50.6, marking the highest manufacturing growth since last February, while the official PMI fell to 49.9.⁵⁹ Zhong Zhengsheng, an economist at CEBM Group, a subsidiary of Caixin Insight Group, suggested the official reading was lower due to its focus on heavy industry sector firms, which are increasingly challenged by overcapacity and lower demand.⁶⁰ Other analysts attribute the divergence to regional differences in the companies surveyed; an economist from investment bank China International Capital Corporation

* A reading below 50 points indicates a contraction in the manufacturing sector.

† A lesser-known private estimate, China Minxin PMI, was suspended “indefinitely” in July by its publishers, the China Minsheng Bank and the government-affiliated China Academy of New Supply-Side Economics. *Financial Times*, “Independent Chinese PMI Gauge Suspended Indefinitely,” July 20, 2016. www.ft.com/fastft/2016/07/21/independent-chinese-pmi-gauge-suspended-indefinitely.

noted many of the companies Caixin surveys are based on China’s prosperous east coast.⁶¹ Value-added industrial growth—viewed by markets as a proxy for economic growth—expanded 6.2 percent year-on-year in June.⁶²

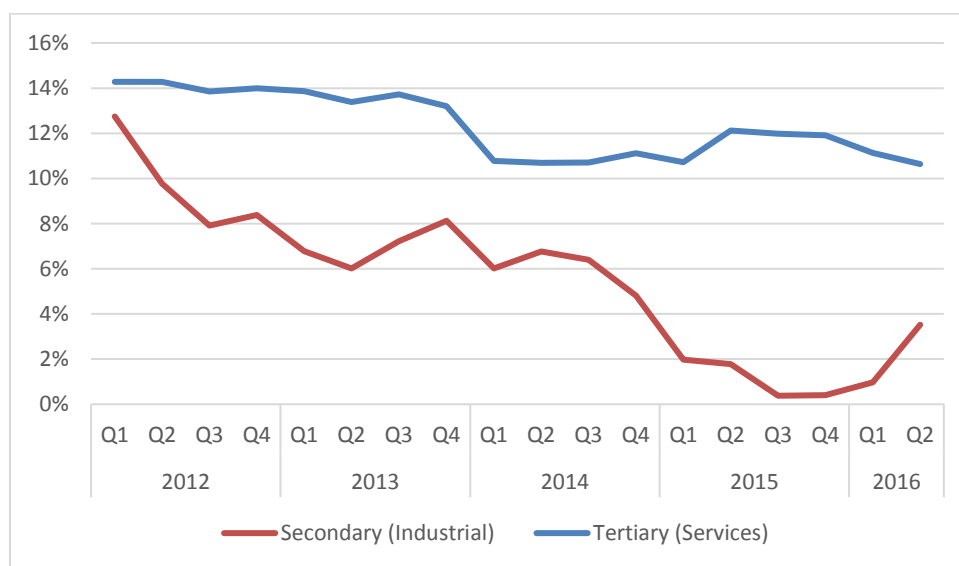
Figure 8: China’s Declining Manufacturing Sector, June 2013–June 2016



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

The old-growth sectors of China’s economy appear to have benefitted from the government’s stimulus efforts. Secondary industry grew 3.5 percent in the second quarter of 2016, up from 1 percent in the first quarter (see Figure 9).⁶³ China’s tertiary sector (predominantly services), however, grew 10.6 percent, down from the first quarter’s 11.3 percent, as the sector’s boost from financial services faded.*⁶⁴ Still, the service sector is now the major contributor to GDP, accounting for 54.1 percent of GDP in the second quarter of 2016, up from 52.3 percent in the second quarter of 2015.⁶⁵

Figure 9: GDP Growth by Sector, 2012–2016 Q2
(year-on-year)



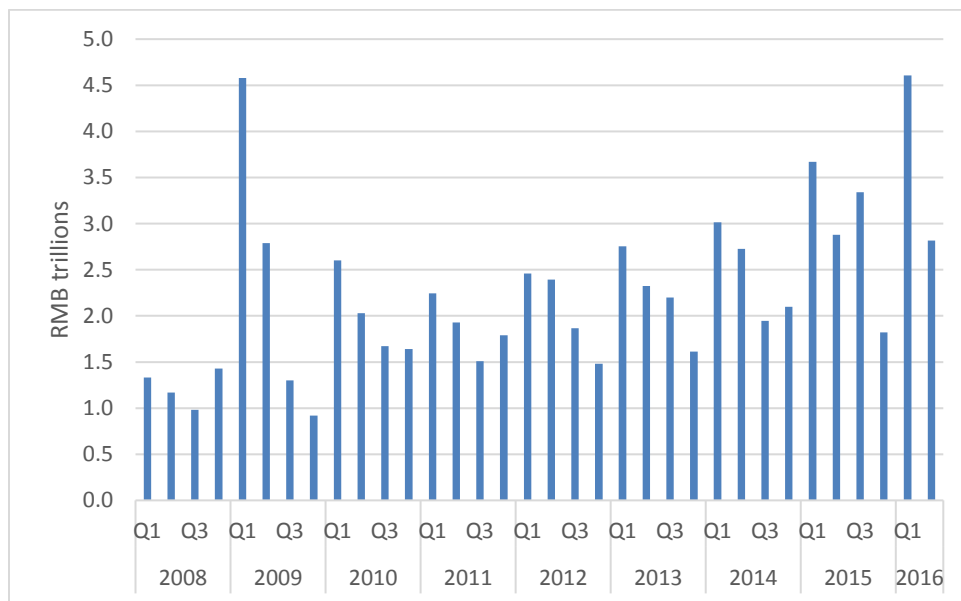
* While financial services was the main contributor to overall service growth in the first half of 2015, its share has been in decline since the stock bubble burst last June. Gabriel Wildau, “China Services Sector Key to Growth,” *Financial Times*, December 6, 2015. <https://next.ft.com/content/0f6f0018-9817-11e5-bdda-9f13f99fa654>.

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

Consumption's contribution to GDP in 2016 continued to increase, accounting for 73.4 percent of growth in the first half of 2016, up from 60 percent in the first half of 2015.⁶⁶ Retail sales of domestic goods and services, a proxy measure for overall consumption, grew at a better-than-expected 10.6 percent year-on-year in June 2016, the highest reading since December 2015.⁶⁷ Because China's retail sales figures include private and government purchases, the household consumption component of GDP expenditure can be a more accurate indicator of household spending.⁶⁸ China's national per capita disposable income, adjusted for inflation, grew 6.5 percent year-on-year in the first half of 2016, compared with economic growth of 6.7 percent.⁶⁹ Despite strong retail sales data, growth in consumer spending is likely to weaken, as income gains slow* and household savings rates remain high.^{† 70}

Growth in second quarter of 2016 has come in large part from government stimulus measures. While lending eased overall to \$432.8 billion (RMB 2.9 trillion) in new loans during the second quarter from the first quarter's record \$687 billion (RMB 4.6 trillion), the pace of lending picked up again, with new loans totaling \$209 billion (RMB 1.4 trillion) in June alone (see Figure 10).⁷¹

Figure 10: New Loans Issued by Chinese Banks, 2008–2016 Q2
(year-on-year)



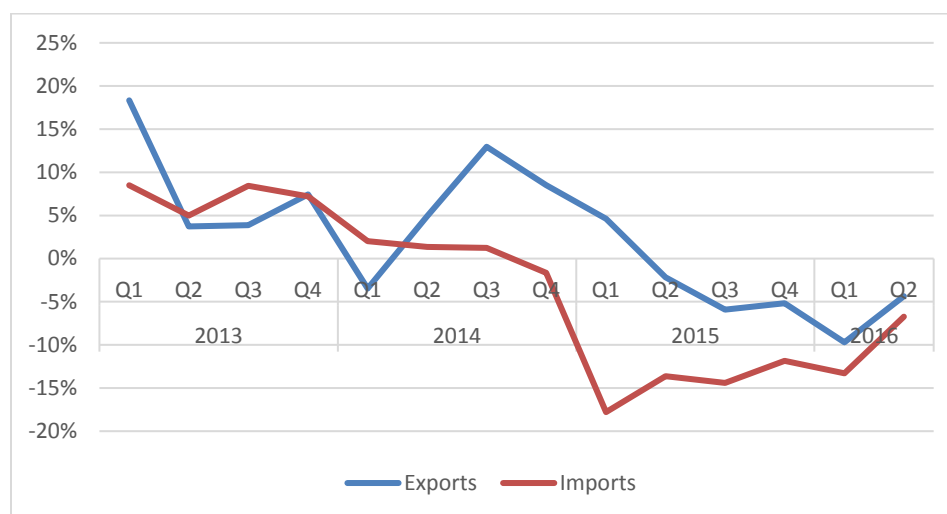
Source: The People's Bank of China via CEIC database.

In the second quarter of 2016, China's global exports and imports continued to fall, reflecting sluggish global and domestic demand. In dollar terms, China's exports contracted 4.4 percent year-on-year in the second quarter (see Figure 11).⁷² Imports fell 6.7 percent as the country's economy faces increasing downward pressure on growth.⁷³

* In July 2016, Xin Changxing, vice minister of China's Ministry of Human Resources and Social Security, called for a slowdown in wage increases to maintain competitiveness. Several provinces have slowed or halted increases to minimum wages this year, as Chinese companies face increasing pressure from weakening demand and rising expenses. Nick Heath and Winni Zhou, "China Will Struggle to Maintain Growth Pace for Wages: Statistics Bureau," Reuters, July 16, 2016. <http://www.reuters.com/article/us-china-economy-wages-idUSKCN0ZX02G>.

† According to China's National Bureau of Statistics, the average Chinese household saves as much as 40 percent of its income. In contrast, the U.S. household savings rate is 5.2 percent. China's National Bureau of Statistics, *China Had a Good Start in the First Quarter of 2016*, April 15, 2016. http://www.stats.gov.cn/english/PressRelease/201604/t20160415_1343971.html; Alexandra Stevenson, "As Growth Slows, China Pins Hopes on Consumer Spending," *New York Times*, January 19, 2015. <http://www.nytimes.com/2015/01/20/business/as-growth-slows-china-pins-hopes-on-consumer-spending.html>.

Figure 11: Change in Chinese Exports and Imports, 2013–2016 Q2
(quarterly, year-on-year)



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

Policy Trends in China’s Economy

Chinese Government Approves Debt-for-Equity Swap Trial

As the Chinese government continues to stimulate the economy with new loans, concerns are rising over the country’s mounting corporate debts, prompting calls for mitigating measures.* In July 2016, China’s State Council greenlit a new policy allowing financial institutions to swap nonperforming loans (NPLs)—loans that are unlikely to be paid back—for equity in indebted firms. An executive at China Development Bank said that under the pilot program, financial institutions will exchange \$149 billion (RMB 1 trillion) worth of NPLs for equity stakes in companies that owe them money; other institutions involved include China Development Bank, Bank of China, Industrial and Commercial Bank of China, and the Export-Import Bank of China.⁷⁴

The announcement did not specify when the first batch of swaps will take place. In the meantime, NPLs are piling up. According to the China Banking Regulatory Commission, commercial banks’ NPLs amounted to 1.81 percent of total loans at the end of June 2016, up from 1.75 percent at the end of March.⁷⁵ However, the actual NPL ratio may be much higher: according to an IMF report, 15.5 percent (or around \$1.3 trillion) of loans at China’s banks were “potentially at risk.”⁷⁶

A similar debt-for-equity program in 1999–2004 removed \$60.4 billion (RMB 405 billion) of NPLs in exchange for stakes in 580 companies.⁷⁷ In the current economic climate, however, many banks have been considering the proposal with caution. On the one hand, converting NPLs into equity will help banks clean up—at least cosmetically—their balance sheets. On the other hand, banks saddled with equity from failing companies may be unwilling to shut them down—in essence keeping afloat companies that should go under, propagating the problem.⁷⁸

The program is expected to focus on state-owned enterprises (SOEs), which account for the lion’s share of China’s corporate debt—55 percent according to IMF estimates.⁷⁹ The so-called “zombie” companies (i.e., companies that only generate enough profits to cover interest payments) are to be excluded from the program, but since the criteria for determining if a company is a zombie are vague, Chinese banks worry they will have to accept equity from commercially nonviable SOEs.⁸⁰

* For a discussion of various proposals from the Chinese government to address corporate debt, see U.S.-China Economic and Security Review Commission, *Economics and Trade Bulletin*, April 5, 2016, 3–5.
http://origin.www.uscc.gov/sites/default/files/trade_bulletins/Apr%202016%20Trade%20Bulletin.pdf.

China's Internet Regulator Bans Original News Reporting, Orders Dismantling of "Current-Affairs News" Operations

In a move to consolidate the Chinese Communist Party's (CCP) control over China's web and media industries, the Cyberspace Administration of China (CAC) ordered eight large online media companies, including Sina Corp., Sohu.com Inc., NetEase Inc., and Tencent Holdings Ltd., to cease original news reporting.⁸¹ Going forward, services can only distribute print or online media previously reported in government outlets, such as *People's Daily* and Xinhua, and must "rectify" themselves by removing offensive content within an unspecified time frame.⁸² Companies found in violation of these sweeping regulations will face financial penalties.⁸³

The CAC deemed publication of original news reporting a "severe violation" of regulations stipulated by Article 16 of the Provisions for the Administration of Internet News Service.* The CAC stated that these eight profit-driven companies' publication of "current-affairs news"† independent of the CCP narrative created "huge negative effects,"⁸⁴ and questioned company management by stating that their "ideological thinking wasn't high enough, and they have blindly chased after economic gains."⁸⁵

The severity of the CAC's enforcement of the regulations marks a shift away from a comparably more laid back response in the past. Although the Provisions for the Administration of Internet News Service law—prohibiting hiring of reporters or publishing from independent sources—was passed in 2005, the CAC had long condoned regulation-skirting behavior by media companies. For example, Phoenix New Media had often published material that was not submitted for pre-approval.⁸⁶ In April 2016, Chinese Internet technology company NetEase ran a feature after the CCP announced an investigation into senior Hebei Province official Zhang Yue; the feature was taken down shortly afterward.⁸⁷

This crackdown lands at a particularly sensitive time for the CCP, as it prepares for the 19th Party Congress in 2017, when Chinese President and General Secretary of the CCP Xi Jinping will be embarking on his second five-year term and the CCP appoints new leaders.‡ Though most immediately precipitated by candid independent coverage of the government's slow response to flooding in northern China in July, which caused nearly \$2.4 billion in damages and killed 130 in Hebei Province,⁸⁸ this crackdown is happening in a climate of increased censorship as the CCP attempts to strengthen its control over foreign and domestic independent organizations. In February, President Xi conducted a highly publicized visit to *People's Daily*, Xinhua, and CCTV offices to encourage such outlets to "speak for the Party" and protect party authority.⁸⁹ In April, the National People's Congress (NPC) passed a foreign nongovernmental organization (NGO) law that will tighten funding sources and require mandatory organization registration with Chinese police and the Ministry of Public Security (MPS) prior to operating.⁹⁰ On August 1, the Ministry of Civil Affairs released draft rules that may require Chinese NGOs to publicize funding, annual work reports, and membership and leadership boards.⁹¹ They may lose tax exemption status or even face outright bans if they do not comply.[§] ⁹² The crackdown also comes at a time of leadership transition within the CAC, after well-known head Lu Wei unexpectedly stepped down and was replaced by Deputy Xu Lin.⁹³ Not long after, the CAC made a renewed promise to curtail the spread of "false news" by guiding outlets to establish rigorous internal supervision.⁹⁴ Effects of this promise have been notably limited. David Bandurski, editor of the China Media Project at the University of Hong Kong's Journalism and Media Studies Center, stated that such promises

* Article 16 stipulates that services "shall republish or distribute the news information published by the press work units of the central government or the press work units directly administered... under the central government and indicate the source of the news information, and may not distort the contents of the original news information." *China Law Edu*, "Administration of Internet News Information Services Provisions," September 25, 2005. <http://www.chinalawedu.com/news/23223/23228/22023.htm>

† According to the draft version of China's online information law, "current-affairs news" covers politics, economics, military, foreign affairs and social issues.

‡ Five of the seven members of the current Politburo Standing Committee (excluding Xi Jinping and Li Keqiang) are due to retire, leading to heightened speculation about the future direction of the CCP and jockeying for position among China's top leadership. Minxin Pei, "Political Jockeying Hinders Real Economic Reform in China," *Nikkei*, July 14, 2016. <http://asia.nikkei.com/magazine/20160714-VIRTUAL-GETS-REAL/Viewpoints/Minxin-Pei-Political-jockeying-hinders-real-economic-reform-in-China?page=1>.

§ Annual work reports must be delivered prior to May 31 yearly. If rules are violated two years in a row, organizations will be banned. Ben Blanchard, "China Proposes Tightening Grip on NGOs," *Reuters*, August 1, 2016. <http://www.reuters.com/article/us-china-ngos-idUSKCN10D087?il=0>.

have been ongoing for 12 years: “And we can say that right now corruption in China’s media has never been worse.”⁹⁵

According to *The Paper*, a publication overseen by the CCP, certain media outlets—of which Sina, Sohu, and NetEase had temporarily been taken offline by the Beijing branch of the CAC—have already taken corrective action by removing or ceasing publication of material on webpages, mobile client platforms, and on their official WeChat accounts. Specifically, Sina has shut down its “News Geek” portal and is in the process of deleting content from its live broadcast feed found to be in violation, Sohu has closed three portals, NetEase has shuttered its “Echo” and “Landmark” portals and is removing violating content from its “News Academy” feed, and Phoenix Media has ceased publication of its “Serious Reporting” newsletter.⁹⁶ It remains to be seen whether regulations targeting the eight news outlets will affect all independent news publishers across China—sources from whom hundreds of millions of Chinese readers obtain their daily news.⁹⁷

Sector Focus: Market Barriers for Chinese Drugs, Medical Devices, and Medical Services

China’s Growing Market for Health-Related Products

China’s market for pharmaceutical drugs, medical devices, and medical services is expanding,^{*} offering significant opportunities for foreign companies looking to invest in pharmaceuticals and health products. In part, China’s aging population has made it a valuable destination for health-related investments. China’s median age, which was estimated to be under 37 years in 2015, will reportedly surpass the United States’ median age of 38 years by 2020, and is expected to rise to around 46 years by 2050.⁹⁸ Meanwhile, the Chinese population aged 65 and above is projected to increase from 9 percent of the country’s total population in 2013 to 25 percent by 2040.⁹⁹ China is now seeking to provide more abundant and better-quality medical treatments to address the health problems that accompany old age and increased life expectancy.¹⁰⁰

Improved medical care is also needed to combat the rising incidence in China of noncommunicable diseases like heart disease, stroke, and diabetes.¹⁰¹ Noncommunicable diseases (including cancer) accounted for around 80 percent of China’s disease burden[†] in 2013, and are anticipated to become more prevalent as the country’s life expectancy continues to rise.¹⁰² According to the World Bank, cases of heart attacks, stroke, and diabetes in China are anticipated to see compounded annual growth rates of 7.1 percent, 10.1 percent, and 3.7 percent, respectively, between 2010 and 2020 (see Table 3).¹⁰³ Alzheimer’s disease could also become a more common health problem in China, with the proportion of the population with Alzheimer’s projected to increase from 12 percent in 2010 to 33 percent in 2050.¹⁰⁴

^{*} For more on China’s pharmaceutical and medical services sector, see U.S.-China Economic and Security Review Commission, Chapter 1, Section 3, “China’s Health Care Industry, Drug Safety, and Market Access for U.S. Medical Goods and Services,” in *2014 Annual Report to Congress*, November 2014, 127–171.

[†] Disease burden is the impact of a health problem as measured by financial cost, mortality, morbidity, or other indicators. World Health Organization, “Global Burden of Disease.” http://www.who.int/topics/global_burden_of_disease/en/.

Table 3: Projected Cases of Noncommunicable Diseases in China, 2010–2030

(Million cases)

	2010	2020	2030	Compound Annual Growth Rate	
				2010–2020	2020–2030
Heart Attack	8.1	16.1	22.6	7.1%	3.4%
Stroke	8.2	21.4	31.8	10.1%	4.0%
Diabetes	36.2	52.1	64.3	3.7%	2.1%
Total	79.6	136.7	181.3	5.6%	2.9%

Source: World Bank Human Development Unit, “Toward a Healthy and Harmonious Life in China: Stemming the Rising Tide of Non-Communicable Diseases,” July 2011, 2. http://www.worldbank.org/content/dam/Worldbank/document/NCD_report_en.pdf.

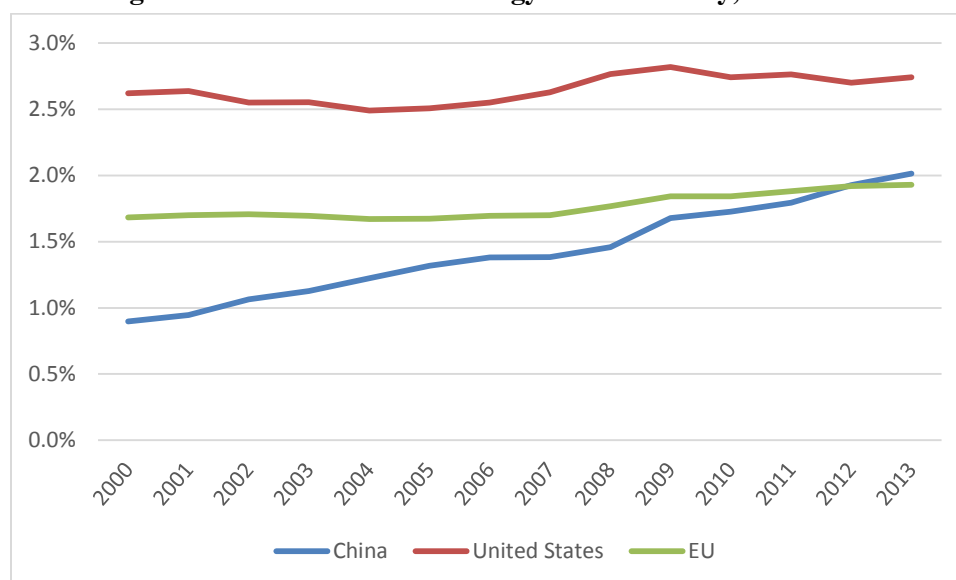
Because urban residents in China spend around twice as much on healthcare as rural residents, rapid urbanization and growing populations of migrant workers and temporary urban residents has expanded the health market.¹⁰⁵ In addition, the country’s growing wealth has created a market for private hospitals, high-tech devices, and patented drugs among affluent Chinese citizens.¹⁰⁶ The growing use of information technology has also helped rural citizens gain access to mobile health technology, further expanding the population of Chinese citizens with access to health products and services.¹⁰⁷

To meet rising demand for drugs and medical care, the Chinese government has targeted biopharmaceuticals as a strategic industry. In 2012, China’s State Council included life science innovation in its 12th Five-Year Plan (FYP) as a strategic emerging industry, laying out the now-accomplished goal of entering 30 new indigenous patent drugs into its domestic market by 2015 and aiming to add at least five additional innovative drugs into global markets by 2020.¹⁰⁸ In addition, the *Made in China 2025* agenda, released by the State Council in May 2015, affirmed the place of biomedicine and advanced medical devices among China’s ten priority industrial sectors.¹⁰⁹ Most recently, the 13th FYP, ratified at the annual NPC in March 2016, reemphasized the need for developing a biopharmaceutical market and focusing on boosting innovation in biomedicines.¹¹⁰

In keeping with these goals, China has been increasing its research and development (R&D) in science and technology. The Chinese government has invested heavily in biomedical innovation, with estimates indicating more than \$70 billion was dedicated toward the life sciences sector in 2015.¹¹¹ As shown in Figure 12, China’s science and technology R&D intensity, or R&D investment as a percentage of GDP, has been steadily increasing: in 2013, science and technology R&D increased to nearly 2.1 percent, up from less than 1 percent in 2001 and surpassing the R&D intensity of the EU (though still trailing well behind the United States’ 2.7 percent).¹¹² It is estimated that China will surpass the United States’ R&D spending in science and technology by 2020, with increased investment likely leading to a significant spike in the development of new Chinese drugs.¹¹³ At the NPC meeting in March 2016, China’s Premier Li Keqiang indicated science R&D funding will prioritize brain research and applications of genetic knowledge in order to support the future of Chinese medicine innovation.¹¹⁴

* For more on the 13th FYP, see the U.S.-China Economic and Security Review Commission, *Economics and Trade Bulletin*, April 5, 2016. http://origin.www.uscc.gov/sites/default/files/trade_bulletins/Apr%202016%20Trade%20Bulletin.pdf.

Figure 12: Science and Technology R&D Intensity, 2000–2013

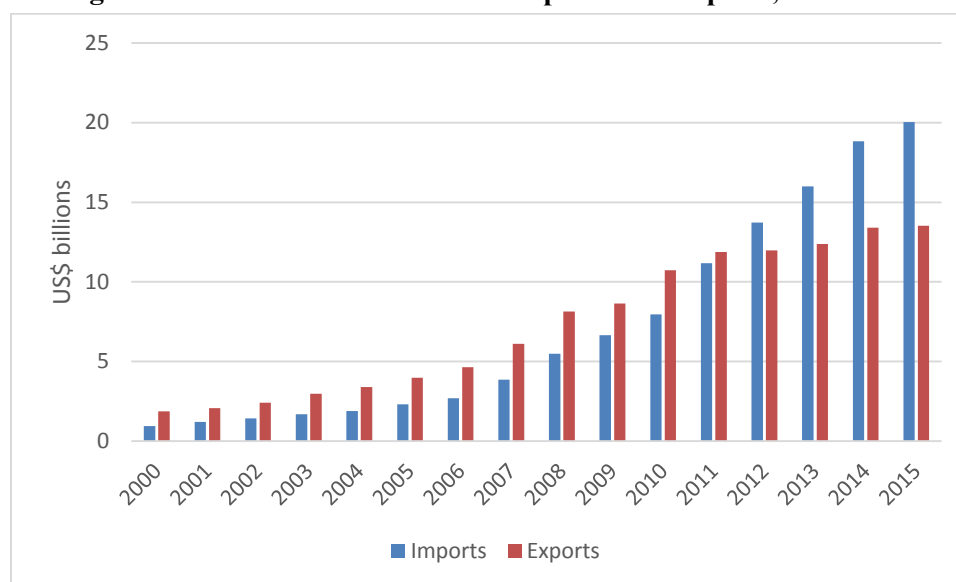


Source: Organisation for Economic Co-Operation and Development, “Main Science and Technology Indicators.” http://stats.oecd.org/Index.aspx?DataSetCode=MSTI_PUB.

As China has expanded its drug and medical device markets, the United States has been able to increase its exports to China. During the last decade, the Chinese government has prioritized pharmaceutical production as a “high value-added industry,” providing export tax rebates to producers of pharmaceutical ingredients to boost exports.¹¹⁵ A Commission report published in July 2016 details the growth of China’s pharmaceutical market, which is the second largest in the world with a revenue of \$108 billion in 2015, although it trails far behind the United States’ \$333 billion pharmaceutical industry.*¹¹⁶ China’s pharmaceutical market is still growing rapidly, with revenues increasing 15 percent on an annualized basis since 2010.¹¹⁷ However, this growth has not kept pace with spiking demand, forcing China to dramatically increase its imports of pharmaceutical products. Between 2000 and 2015, China’s imports of pharmaceutical products increased more than 20-fold, while its exports increased six-fold (see Figure 13).¹¹⁸ U.S. pharmaceutical exports to China, meanwhile, reached \$2 billion in 2015, up from \$617 million in 2010, representing an annual growth rate of 26.6 percent over the last five years.¹¹⁹ Still, according to the U.S. International Trade Administration, China is only the United States’ 20th-largest market for pharmaceutical exports.¹²⁰ The United States, meanwhile, comprises 11 percent of China’s total pharmaceutical imports, the largest share of any country.¹²¹

* For more on China’s pharmaceutical and chemical market and exports of drugs and precursor chemicals to the Western hemisphere, see Sean O’Connor, “Meth Precursor Chemicals from China: Implications for the United States,” *U.S.-China Economic and Security Review Commission*, July 18, 2016. http://origin.www.uscc.gov/sites/default/files/Research/Staff%20Report_PrecursorChemicalReport%20071816_0.pdf.

Figure 13: China's Pharmaceutical Exports and Imports, 2000–2015



Note: Values based on current prices.

Source: Organisation for Economic Co-Operation and Development, “Main Science and Technology Indicators.” http://stats.oecd.org/Index.aspx?DataSetCode=MSTI_PUB.

China's medical device market grew more than 30 percent year-on-year in 2015 to around \$55 billion, making it the world's second-largest market for medical devices behind the United States.¹²² Imported medical devices account for about half of the country's devices, with the United States—China's top exporter of medical devices—accounting for around one-third of China's imports in the industry.¹²³

In contrast to drug and device makers, U.S. medical services have yet to penetrate the Chinese market on a significant scale.¹²⁴ While restrictions on foreign physicians and private hospitals have limited U.S. medical service exports to China, they have also contributed to a short supply of medical resources and personnel in China.¹²⁵ As a result, many Chinese citizens choose to go abroad for medical visits. A July 2016 Commission report on Chinese tourism in the United States reveals an increasing number of Chinese citizens are visiting the United States for medical attention, particularly for difficult procedures or childbirth.* According to the Mayo Clinic, the number of Chinese patients treated in 2014 doubled from the year before, and the University of San Francisco Medical Center reports treating around 25 percent more Chinese patients annually over the last several years.¹²⁶ Although it is difficult to determine the motives of Chinese patients, superior medical care appears to drive some affluent Chinese to the United States for medical treatment; in a 2013 survey of 250,000 Chinese citizens, 66.8 percent of respondents did not trust Chinese medical professionals' diagnoses or treatment.¹²⁷

Market Barriers Limit Foreign Access to China's Medical Sector

As detailed in the earlier discussion of China's 2016 Trade Policy Review at the WTO, market access for foreign firms in China can be severely limited, and the hospital and medical service industries are no exception.¹²⁸ However, U.S. medical and pharmaceutical companies, enticed by the size and growth of the Chinese market, continue to pursue increased exports and investments in China. While Beijing has taken steps to increase foreign access to its drugs, medical devices, and medical service market,[†] foreign companies in China still face strict, onerous regulations. Even new reforms aimed at streamlining approval processes and leveling the playing field for domestic

* For more on Chinese medical tourism to the United States, see Matt Snyder, “Chinese Tourism and Hospitality Investment in the United States,” *U.S.-China Economic and Security Review Commission*, July 25, 2016, 10–12. http://origin.www.uscc.gov/sites/default/files/Research/Staff%20Report_Chinese%20Tourism%20and%20Hospitality%20Investment072516.pdf.

† For more on China's proposals and policies aimed at reducing market barriers in its healthcare sector, see United States Trade Representative, “2015 Report to Congress on China's WTO Compliance,” December 2015, 65–66. <https://ustr.gov/sites/default/files/2015-Report-to-Congress-China-WTO-Compliance.pdf>.

and foreign firms encounter resistance from entrenched local interests, which drag their feet on implementation of reform measures.¹²⁹ As a result, there remain numerous obstacles for foreign firms looking to enter the Chinese market.

In the pharmaceutical industry, China's drug approval process remains costly and time consuming for foreign firms. To enter the Chinese pharmaceutical market, U.S. drug makers must first apply for permission to participate in a government clinical trial, even if the drug is already patented and available in the United States.¹³⁰ The process for receiving permission is often drawn out due to staffing limitations at China's Food and Drug Administration (CFDA), which oversees the trials.¹³¹ Once permission is granted, the clinical trials can delay the re-patenting and marketing of the drug in China by up to eight years, drastically cutting into drugs' patented years and substantially limiting the manufacturer's profits.¹³² Chinese regulators have also been known to delay or invalidate U.S. pharmaceutical patents, citing insufficient information from the applicant.¹³³ In these cases, regulators will often prohibit companies from filling out supplemental information filings, leaving firms with little recourse if their application is denied.¹³⁴

In addition, uneven access to China's drug reimbursement program has made U.S. drugs less affordable than Chinese drugs.¹³⁵ Reimbursements, which are granted through China's health insurance, allow Chinese citizens to purchase imported medical products that tend to be more expensive than locally manufactured items.¹³⁶ However, because the official list of drugs authorized for reimbursement is rarely updated, foreign drugs can remain ineligible for reimbursement for years after they are introduced in China.¹³⁷ In May 2015, China's National Development and Reform Commission laid out reforms to enhance coordination between the medical insurance schemes and the procurement system and introduce new reimbursement standards.¹³⁸ To date, however, pricing and reimbursement lists still exclude many foreign drugs, with many Chinese drug firms and insurance providers resisting the reforms due to fears over shrinking profits.¹³⁹

U.S. device makers also face numerous regulatory hurdles that limit their competitiveness in China. The CFDA is responsible for regulating all medical devices sold in the Chinese market, and requires lengthy and expensive testing and approval procedures for medical device imports that can take as long as three years to complete.¹⁴⁰ The approval requirements are in many cases tedious, such as a requirement that all U.S. devices be FDA approved before beginning the registration process in China, where they will then need to be re-approved by the CFDA.¹⁴¹ In October 2014, the CFDA issued the Measures for the Administration of Medical Device Registration, a policy that further limits foreign medical device companies' access in China by requiring that imported medical devices be approved by the specific local medical authorities in the region where the device is to be sold, as well as by the CFDA.¹⁴²

Faced with a growing need for high-tech medical facilities, Beijing has taken some steps to encourage more foreign investment in medical services. For instance, the Chinese government revised its foreign direct investment (FDI) catalogue in 2012 to allow for wholly foreign-owned hospitals, and today nearly half of China's hospitals are foreign owned.¹⁴³ However, because the Chinese government directs the majority of state loans and subsidies to state firms, private medical companies are placed at a distinct disadvantage.¹⁴⁴ Under the Chinese health system, public companies are readily given state financing to build and equip hospitals, while private hospitals struggle to secure the funding necessary to acquire state-of-the-art medical equipment and technology.¹⁴⁵

Because most Chinese doctors are employed in public hospitals where they can earn considerable prestige, career security, and political benefits from forging ties with government officials, private hospitals often face staffing shortages.¹⁴⁶ Physicians seeking a second job at a different hospital must get permission from their primary employer and register their multi-site practice with local health authorities.¹⁴⁷ Although the Chinese government has taken steps to simplify the registration procedure, physicians are often denied permission to work in a second location.¹⁴⁸ As a result, very few Chinese physicians currently have multi-site practice licenses. In Shenzhen, for example, none of the 6,000 physicians are registered for multi-site practice.¹⁴⁹ By limiting private physicians' financial opportunities and preventing them from taking a second job, these regulations make it difficult for private hospitals to attract qualified personnel.¹⁵⁰

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