U.S.-China Economic and Security Review Commission

Economics and Trade Bulletin

February 7, 2018

Highlights of This Month's Edition

- **Bilateral trade:** In 2017, the U.S. goods trade deficit with China climbed 8.1 percent on the previous year to $375.2 billion, the highest deficit on record; U.S. services exports to China grow at the slowest rate since 2009 due to a slowdown in tourism to the United States.
- **Bilateral policy issues:** The Office of the U.S. Trade Representative's 2017 report on China's adherence to WTO commitments criticizes China's noncompliance, noting "it is now clear that the WTO rules are not sufficient to constrain China's market-distorting behavior."
- **Quarterly review of China's economy:** China's economy grew 6.9 percent year-on-year in 2017, driven by greater domestic consumption, higher industrial output, and global demand.
- **Policy trends in China's economy:** The Chinese government takes steps to discourage bitcoin mining in its latest crackdown on the cryptocurrency; China's central bank adjusts exchange rate management regime.
- **Sector focus – Chinese Outbound Investment:** Chinese investment into the United States drops 35 percent following China's imposition of capital control measures; newly announced Chinese investment deals in the United States are 90 percent lower in 2017 than 2016; concerns over espionage activity, opaque ownership structures, and a lack of privacy protections for U.S. customers cause HNA and Ant Financial's U.S. acquisition transactions to flounder and terminate Huawei's mobile phone partnerships with U.S. carriers.

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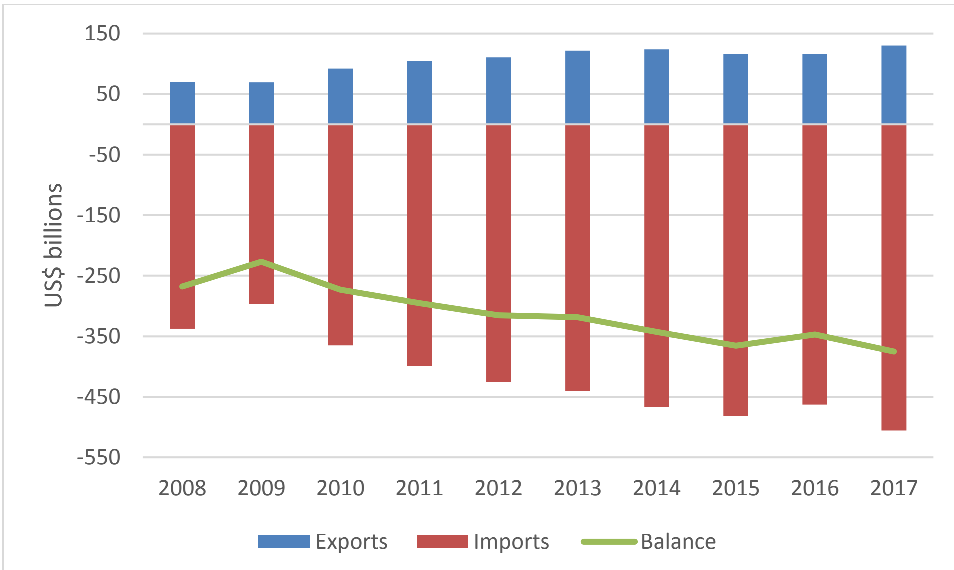
Bilateral Trade

The U.S. 2017 Goods Deficit with China Sets a New Record

In 2017, the U.S. goods deficit with China grew by about 8.1 percent over 2016 to reach $375.2 billion—the highest on record (see Figure 1). In the fourth quarter of 2017, the U.S. goods deficit with China grew to $101.5 billion—a 13.2 percent increase year-on-year. Higher level of imports, which grew 11.9 percent year-on-year in the fourth quarter of 2017, were the main contributor to the higher deficit, though U.S. exports to China also grew by 8 percent over the same period. Growth in exports to China was primarily driven by crude oil, passenger aircraft, and aircraft-related components, while growth in imports from China consisted of mobile phones, household items, and computers.[1]

Figure 1: U.S. Goods Trade with China, 2008–2017



Source: U.S. Census Bureau, Trade in Goods with China, February 6, 2018. *https://www.census.gov/foreign-trade/balance/c5700.html*.

Transpiration Dominates U.S. Exports to China, Crude Oil Exports on the Rise

Though transportation equipment comprised the greatest share of U.S. exports to China in the fourth quarter of 2017, exports of crude oil showed impressive growth, rising from $685 million in the fourth quarter of 2016 to nearly $2.8 billion in the last quarter of 2017 (see Table 1). Data from the U.S. Energy Information Administration show that in 2017, China overtook the United States as the world's top crude oil importer, importing 8.4 barrels per day relative to 7.9 barrels per day in the United States.[2] U.S. exports of transportation equipment and chemical products also saw moderate growth, while agricultural product exports declined 23.5 percent relative to the fourth quarter in 2016.

Though U.S. imports of Chinese manufactures, electrical equipment, and non-electrical machinery saw moderate growth year-on-year, computers and electronics continue to dominate, accounting for 40 percent of all U.S. imports in the fourth quarter of 2017 (up from 35 percent in the third quarter).

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

(US$ millions)

U.S. Top-Five Exports to China

	Exports (in US$ millions)	Share of total (%)	Change over Q4'16 (%)
Quarter 4 (Oct-Dec'17)			
Transportation Equipment	8,205.7	20.8%	23.4%
Agricultural Products	7,454.8	18.9%	-23.5%
Computer and Electronic Products	4,579.1	11.6%	1.9%
Chemicals	4,230.9	10.8%	13.4%
Oil and Gas	2,783.4	7.1%	306.3%
Other	12,101.8	30.7%	-
Total	39,355.8	**100.0%**	
2017 Year-to-Date			
Transportation Equipment	29,543.6	22.7%	
Computer and Electronic Products	17,105.9	13.1%	
Agricultural Products	15,903.4	12.2%	
Chemicals	15,157.1	11.6%	
Machinery, Except Electrical	9,326.7	7.2%	
Other	43,332.9	33.2%	
Total	130,369.5	**100.0%**	

U.S. Top-Five Imports from China

	Imports (in US$ millions)	Share of total (%)	Change over Q4'16 (%)
Quarter 4 (Oct-Dec'17)			
Computer and Electronic Products	57,226.3	40.6%	18.4%
Miscellaneous Manufactured Commodities	12,557.3	8.9%	9.7%
Electrical Equipment, Appliances, and Component	11,518.6	8.2%	8.4%
Machinery, Except Electrical	8,724.2	6.2%	17.3%
Apparel and Accessories	7,169.9	5.1%	-0.8%
Other	43,627.7	31.0%	-
Total	140,824.0	**100.0%**	
2017 Year-to-Date			
Computer and Electronic Products	184,397.5	36.5%	
Electrical Equipment, Appliances, and Component	43,258.9	8.6%	
Miscellaneous Manufactured Commodities	41,831.9	8.3%	
Machinery, Except Electrical	35,035.4	6.9%	
Apparel and Accessories	29,344.6	5.8%	
Other	171,728.7	34.0%	
Total	505,597.1	**100.0%**	

Source: U.S. Census Bureau, USA Trade Online, February 6, 2018. *https://usatrade.census.gov/*.

Advanced Technology Products Deficit Widens

The U.S. trade deficit in advanced technological products (ATP) exceeded $135 billion by the end of 2017, an 18.5 percent increase over 2016 (see Table 2). Information and communication technologies (ICT) remained the greatest contributor to the deficit, with $155.5 billion in imports from China compared to $4.5 billion exports from the United States. This product category alone comprised over 90 percent of China's ATP exports to the United States. The United States' largest ATP export to China, aerospace, stood at 46 percent of annual U.S. ATP exports, while U.S. nuclear technology and life science exports saw growth in their trade surpluses in 2017.

Table 2: ATP Trade through December 2017

(US$ millions)

Quarter 4	Quarterly					Cumulative year-to-date				
	Exports	Imports	Balance Q4'2017	Balance Q4'2016	Balance YOY	Exports	Imports	Balance 2017	Balance 2016	Balance YOY
TOTAL	**10,132**	**53,614**	**-43,482**	**-36,397**	**19.5%**	**35,652**	**171,067**	**-135,414**	**-114,303**	**18.5%**
(01) Biotechnology	256	50	206	197	4.7%	960	194	766	694	10.3%
(02) Life Science	1,043	649	394	209	88.7%	3,713	2,594	1,119	783	43.0%
(03) Opto-Electronics	167	1,937	-1,770	-1,258	40.7%	607	5,312	-4,705	-5,207	-9.6%
(04) Information & Communications	1,077	48,990	-47,913	-39,601	21.0%	4,511	155,535	-151,024	-128,082	17.9%
(05) Electronics	1,699	1,184	515	672	-23.4%	6,092	4,482	1,610	2,249	-28.4%
(06) Flexible Manufacturing	823	372	452	226	100.1%	2,955	1,347	1,607	1,654	-2.8%
(07) Advanced Materials	72	109	-37	-48	-23.3%	279	413	-134	-137	-2.2%
(08) Aerospace	4,979	261	4,718	3,321	42.1%	16,304	1,027	15,277	13,742	11.2%
(09) Weapons	1	45	-44	-43	2.2%	3	138	-135	-141	-4.6%
(10) Nuclear Technology	15	17	-2	-71	-96.5%	228	25	203	142	43.1%

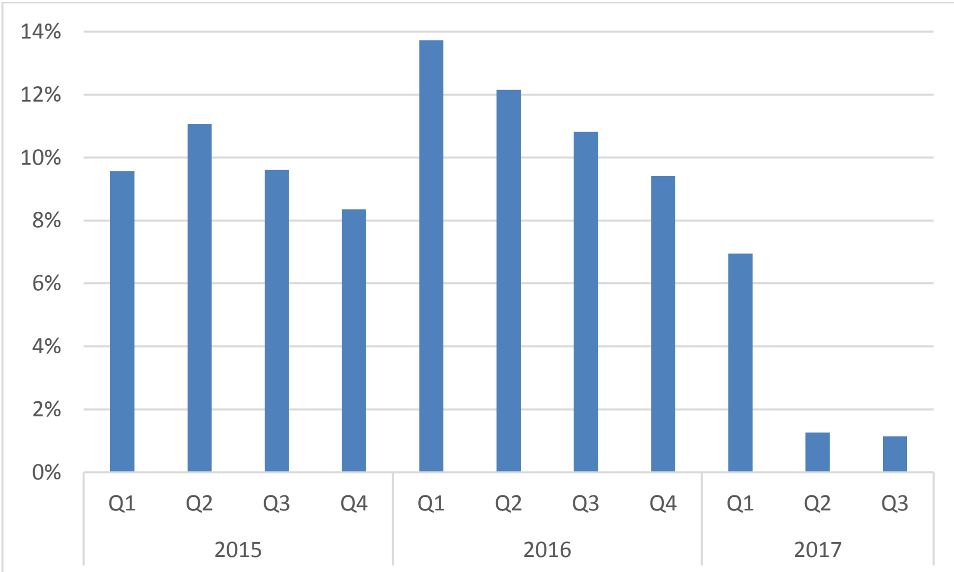
Source: U.S. Census Bureau (Washington, DC: U.S. Department of Commerce, Foreign Trade Division, February 2018). *http://www.census.gov/foreign-trade/statistics/product/atp/2017/12/ctryatp/atp5700.html*.

U.S. Services Trade with China Shows a Decline in Chinese Tourism

In the third quarter of 2017, U.S. services exports to China grew only 1.1 percent year-on-year—their slowest rate since 2009 (see Figure 2).* Overall, U.S. services exports to China totaled $16.3 billion in the third quarter, U.S. services imports from China were $4.2 billion (a 5.4 percent increase year-on-year), and the United States' trade surplus in services with China totaled $12 billion (see Figure 3).[3]

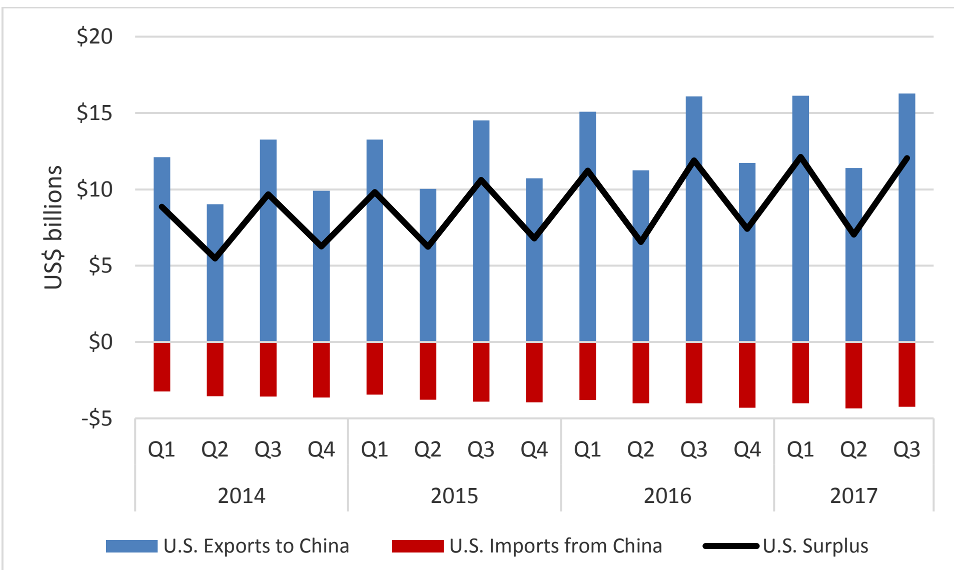
Figure 2: U.S. Services Exports to China Growth, 2015–2017

(year-on-year)



Source: U.S. Department of Commerce – Bureau of Economic Analysis, *U.S. Trade in Goods and Services by Selected Countries and Areas, 1999-Present*, December 19, 2017.

Figure 3: U.S. Trade in Services with China, 2014–2017



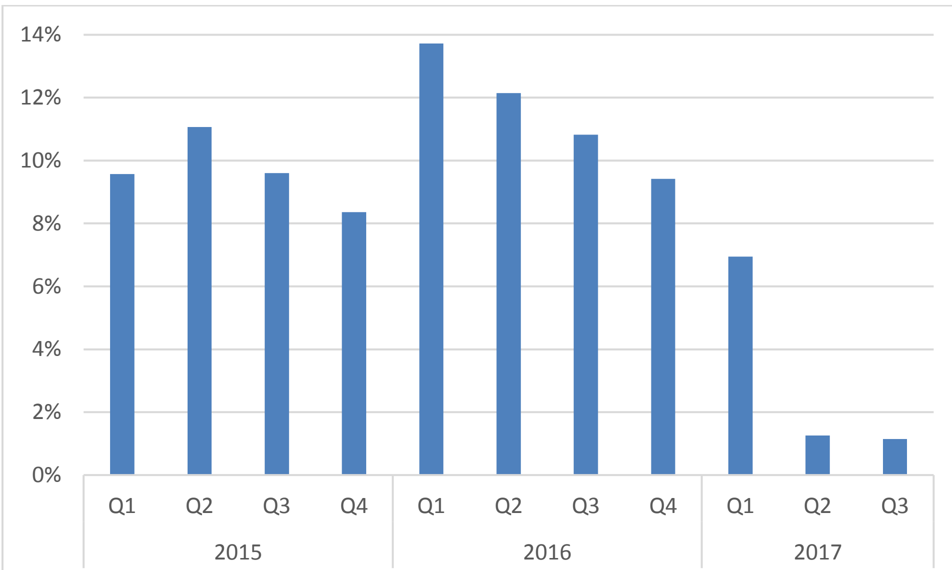
Source: U.S. Department of Commerce – Bureau of Economic Analysis, *U.S. Trade in Goods and Services by Selected Countries and Areas, 1999-Present*, December 19, 2017.

* In the November 2017 *Economics and Trade Bulletin*, the Commission reported that U.S. services exports to China grew 10.4 percent year-on-year in the second quarter of 2017. Following data revisions from the U.S. Department of Commerce, this growth is now estimated to be 1.3 percent year-on-year. U.S. Department of Commerce – Bureau of Economic Analysis, *U.S. Trade in Goods and Services by Selected Countries and Areas, 1999-Present*, December 19, 2017.

The stalled growth of U.S. services exports to China was due to slower expansion of Chinese tourism to the United States, and a decrease in insurance exports and "other business services" exports, a catch-all that includes all service exports except travel, transportation, insurance, finance, intellectual property (IP), and telecommunications services. Tourism (which includes travel for education purposes)[*] accounted for 63 percent of all U.S. services exports to China in the third quarter of 2017 ($10 billion out of $16.3 billion).[4] While Chinese tourism has been an important driver of U.S. services export growth in the past, in the second and third quarters of 2017 it increased only 1 percent year-on-year (see Figure 4).[5] This slower growth is consistent with the overall decline in tourism flows to the United States. According to the U.S. Department of Commerce, total tourism to the United States fell 1 percent year-on-year in the second and third quarters of 2017.[6] U.S. insurance exports to China in the third quarter declined 14 percent year-on-year, from $180 million to $135 million.[7] Exports of "other business services," which have been declining since the fourth quarter of 2016, fell 14 percent year-on-year in the third quarter of 2017, from $1.1 billion to $1 billion.[8]

Figure 4: Chinese Tourism to the United States Growth, 2015–2017

(year-on-year)



Source: U.S. Department of Commerce – Bureau of Economic Analysis, *U.S. Trade in Goods and Services by Selected Countries and Areas, 1999-Present*, December 19, 2017.

Bilateral Policy Issues

The Office of the U.S. Trade Representative Criticizes China's World Trade Organization Compliance

On January 19, the Office of the U.S. Trade Representative (USTR) released its *2017 Report on China's WTO Compliance*. The report was published not long after a similar report by the European Commission on market distortions introduced by Chinese industrial policy.

As in its 2016 report, the USTR presented an overview of broad areas of concern that remain unresolved, including investment restrictions, barriers to market access, lack of IP enforcement, data transfer and cybersecurity restrictions, government subsidies and excess capacity, and industrial policies supporting indigenous innovation.[9] The report highlighted several "priority issues":

[*] The U.S. government classifies education expenses and tuition payments as tourism and travel exports. 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-hospitalityinvestment-united-states*.

- *Technology transfer:* "[China's regulatory authorities] continue to require or pressure foreign companies to transfer technology as a condition for securing investment or other approvals."[10]
- *Preference for local IP in government procurement:* "[A]s recently as the November 2016 JCCT [Joint Commission on Commerce and Trade] meeting, the United States brought to China's attention more than 30 provincial and local measures linking government procurement preferences to the ownership or development of IP in China."[11]
- *Lack of transparency in biotechnology regulatory approval processes:* "Chinese regulatory authorities continue to review applications slowly and without scientific rationale, while Chinese companies continue to try to build up their own capabilities in the area of agricultural biotechnology."[12]
- *Protectionist cybersecurity restrictions:* "[Recent ICT legislation has] raised concerns that [its] framework will be used as an industrial policy tool both to promote and favor national champions and other domestic companies and to block or impede foreign companies' access to the China market."[13]

The 2017 report underscores the lack of improvement on persistent trade-related challenges despite commitments by the Chinese government to change noncompliant policies: "[T]he state's role in the economy has increased, as have the seriousness and breadth of concerns facing U.S. and other foreign companies seeking to do business in China or attempting to compete with favored Chinese companies in their home markets."[14] Further, the report casts doubt on the ability of additional bilateral high-level dialogues or WTO cases alone to successfully address these concerns, stating the efforts of these dialogues have "largely failed."[15] The report concluded,

> *China largely remains a state-led economy today, and the United States and other trading partners continue to encounter serious problems with China's trade regime. Meanwhile, China has used the imprimatur of WTO membership to become a dominant player in international trade. Given these facts, it seems clear that the United States erred in supporting China's entry into the WTO on terms that have proven to be ineffective in securing China's embrace of an open, market-oriented trade regime.*[16]

Many observers perceived the report's blunt language as a departure from the tone of previous years' reports. *Financial Times* world trade editor Shawn Donnan called the report's conclusions "a reversal of more than two decades of policy in Washington towards China's 2001 accession," while *Wall Street Journal* senior correspondent Andrew Browne noted the report reflected the larger pessimism that China does not intend to "[integrate] with a free market global trading system."[17] Rhodium Group founder Daniel Rosen elaborated on this sentiment, describing a broad-based U.S. policy shift in which China represents "a strategic competitor, not a transitional nation converging with our norms" and economic issues are "core to this competition."[18]

The USTR's report echoes many themes raised by the European Commission in its December 2017 report reviewing trade distortions in the Chinese economy, the first country report issued as part of a new calculation methodology in the European Commission's anti-dumping cases.[19] The report highlighted the resource allocation and price distortions resulting from Chinese industrial policy, stating the Chinese Communist Party's control of the economy "extends to the level of business decisions of individual enterprises, both SOEs [state-owned enterprises] and—at times—privately owned companies."[20] This country report was issued following a change in the European Commission's methodology for calculating dumping margins for any WTO member, regardless of market status: where previously the European Commission identified instances of dumping by comparing export prices with domestic prices or costs in the exporting country, its new methodology will disregard those domestic prices if, upon investigation, "significant distortions are found in the exporting country."[*] The European Commission's decision to examine the Chinese economy in its first country report was based on the finding that "the bulk of the EU's anti-dumping activity concerns imports from that country."[†]

[*] "Other benchmarks reflecting undistorted costs of production and sale" will be used instead to calculate the domestic value of the product. European Commission, "The EU Is Changing its Anti-Dumping and Anti-Subsidy Legislation to Address State Induced Market Distortions," October 5, 2017. *http://trade.ec.europa.eu/doclib/press/index.cfm?id=1736*; European Commission, "European Commission Press Release: EU Puts in Place New Trade Defense Rules," December 20, 2018. *http://europa.eu/rapid/press-release_IP-17-5346_en.htm*.

[†] The European Commission's next report will review the Russian economy, and further country reports will be prepared according to "their relative importance in the EU's anti-dumping activity" and whether evidence suggests government interference creates economic

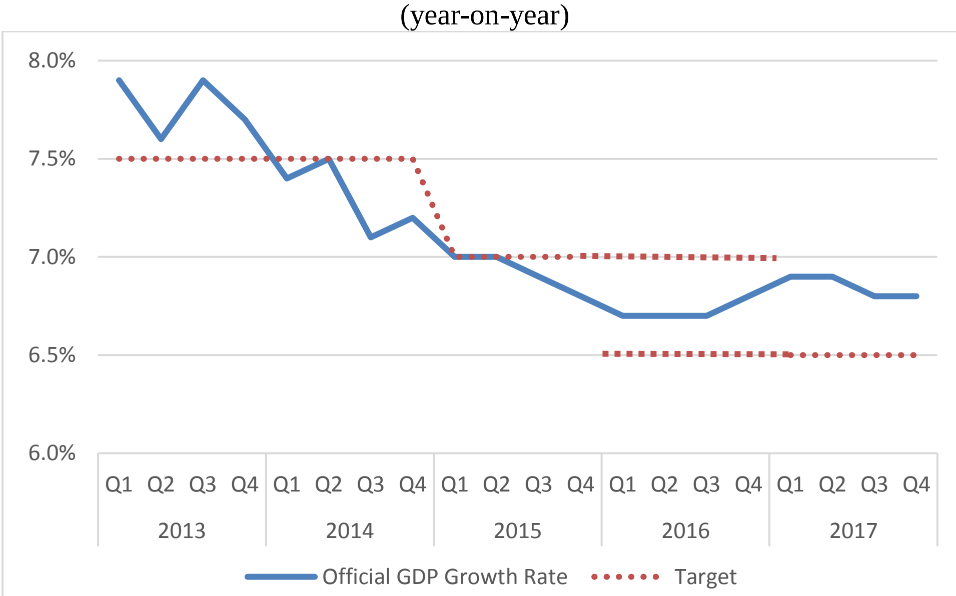
The USTR report release also coincided with the conclusion of several trade remedy investigations. On January 22, the International Trade Commission (ITC) and USTR issued the results of a section 201 case recommending new tariff-rate quotas on washing machines and solar panels, which the Trump Administration subsequently imposed.* Two more trade remedy cases—a section 232 case on steel imports and a section 232 case on aluminum imports—have been recently concluded and forwarded to the president for review, and a third—a section 301 case investigating the Chinese government's policies and practices with respect to IP protection—remains outstanding, to be released in August 2018 at the latest.[21]

Quarterly Review of China's Economy

China's Gross Domestic Product Growth Exceeds Expectations

In 2017, China's officially reported gross domestic product (GDP) accelerated to 6.9 percent year-on-year, exceeding the official 6.5 percent annual target (see Figure 5).[22] In 2016, China's economy expanded at 6.7 percent—China's weakest annual expansion since 1990.[23] Although the Chinese government has in the past been criticized for doctoring growth figures,† a review of unofficial proxies for China's 2017 economic growth substantiates the economic rebound.[24] Retail sales (10.2 percent increase year-on-year), electricity consumption (6.6 percent increase year-on-year), rail freight traffic (10.7 percent increase year-on-year) all experienced strong growth in 2017.[25]

Figure 5: China's Official GDP Growth, 2013–2017
(year-on-year)



Note: In 2016, the target was set at a range of 6.5–7.0 percent GDP growth.
Source: China's National Bureau of Statistics via CEIC database.

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distortions. European Commission, "European Commission Press Release: EU Puts in Place New Trade Defense Rules," December 20, 2018. *http://europa.eu/rapid/press-release_IP-17-5346_en.htm*.

* Section 201 authorizes the president to impose "tariffs, tariff rate quotas, or quantitative restrictions or other actions" following an ITC finding that imports represent "a substantial cause of serious injury" to domestic manufacturers. Office of the U.S. Trade Representative, *Section 201 Cases: Imported Large Residential Washing Machines and Imported Solar Cells and Modules*, January 22, 2018. *https://ustr.gov/sites/default/files/files/Press/fs/201%20Cases%20Fact%20Sheet.pdf*.

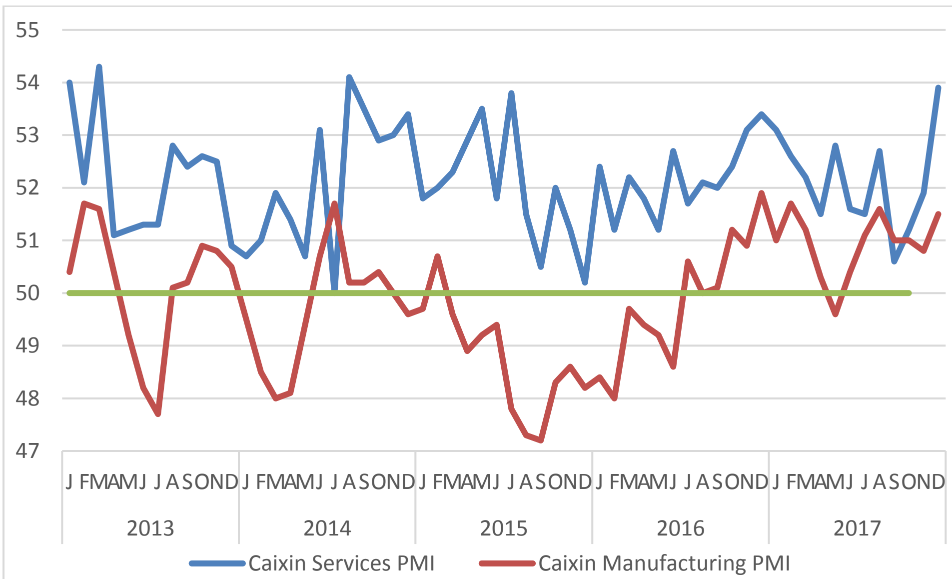
† Recent analysis from Bloomberg Economics found that China's official GDP growth rate between 2011 and 2015 was overstated in part due to provinces seeking to hide the depth of the economic slowdown. For example, Inner Mongolia Province revealed it had overstated its 2016 industrial growth by 40 percent. James Mayger, "China's 2015 GDP Was Exaggerated by Fake Data, Analysis Shows," Bloomberg, January 31, 2018. *https://www.bloomberg.com/news/articles/2018-02-01/china-s-2015-gdp-puffed-up-by-fake-economic-data-analysis-shows*; Nathaniel Taplin, "Real News on Fake Data in China," Wall Street Journal, January 10, 2018. *https://www.wsj.com/articles/real-news-on-fake-data-in-china-1515573859*.

Domestic Consumption, Manufacturing, and Exports Drive Growth

Greater domestic consumption, higher industrial output, and global demand boosted China's high economic growth in 2017.[26] Retail sales of consumer goods—a proxy for overall consumption—increased 10.2 percent year-on-year in 2017.[27] In addition, services continued their upward trend, growing 11.4 percent year-on-year in 2017 compared with 10.8 percent year-on-year growth in 2016.[28]

In 2017, China's manufacturing and industrial production largely recovered from the 2015 and early 2016 slowdown.[29] Value-added industrial growth—a market indicator for economic growth—expanded 6.9 percent year-on-year in 2017.[30] Unofficial estimates by the Chinese financial media firm Caixin found China's services Purchasing Managers' Index (PMI),[*] a measure of economic expansion and industrial utilization, reached 53.9 in December 2017, its fastest growth since August 2014 (see Figure 6).[31] According to Caixin, China's manufacturing PMI improved over the last year to reach 51.5 in December 2017.[32] The pickup in global growth contributed in part to the recovery.[33] Chinese exports (by value), which had been falling year-on-year since 2015, rebounded in 2017, increasing 7.9 percent year-on-year.[34]

Figure 6: Caixin Services and Manufacturing PMIs, 2013–2017



Note: A reading above 50 indicates expansion; a reading below 50 shows contraction.
Source: Caixin and IHS Markit, "Caixin China General Manufacturing PMI," *Markit Economics*, January 2, 2018. *https://www.markiteconomics.com/Survey/PressRelease.mvc/5d67c1b2d63a4013aa2120ea2962a71e*; Caixin and IHS Markit, "Caixin China General Services PMI," *Markit Economics*, January 4, 2018. *https://www.markiteconomics.com/Survey/PressRelease.mvc/021247a9d84a4d4f805074a04f7cd584*.

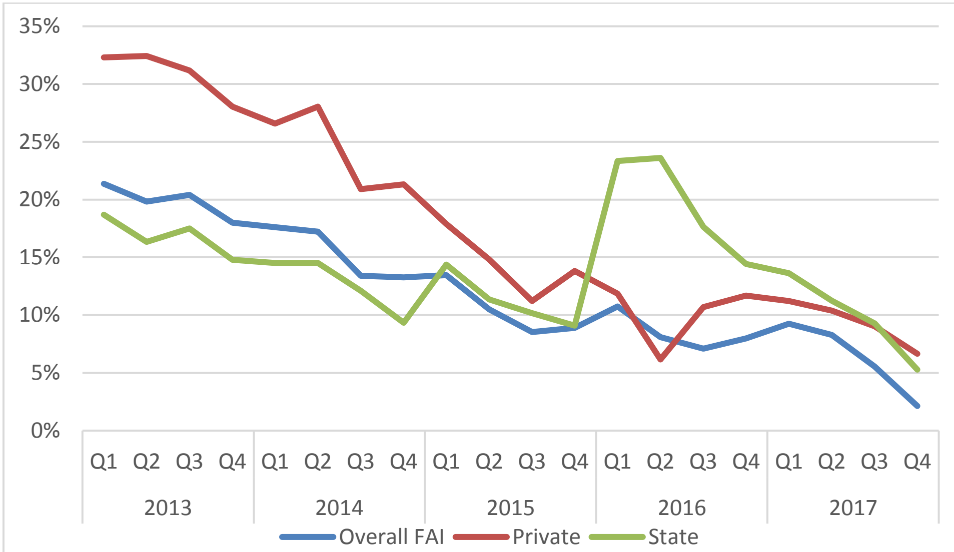
Fixed Asset Investment and Household Consumption Slow

Fixed asset investment (FAI)[†]—a traditional driver of China's growth—continued to expand but at a slower rate due to weakening returns. Growth in China's FAI slowed to 5.9 percent year-on-year[‡] in 2017 compared to 8.1 percent year-on-year in 2016 (see Figure 7).[35] Government infrastructure spending largely fueled growth in FAI, increasing 17.8 percent year-on-year.[36] China's property market—another important component of FAI—cooled in

[*] The PMI measures the production level, new orders, inventories, supplier deliveries, and employment level to gauge the economic activity level in the services and manufacturing sector. The global financial information services provider Markit Economics compiles the Caixin-Markit China services and manufacturing PMI from monthly questionnaires to more than 400 purchasing executives (including small and medium-sized enterprises). By comparison, China's official manufacturing PMI tracks larger state-owned companies, generally leading to a stronger reading than private PMIs.
[†] FAI is a measure of capital spending, or any type of investment by government and the private sector in physical assets such as buildings, machinery, or equipment.
[‡] This number is calculated based on China's National Bureau of Statistics data on FAI in millions of renminbi (RMB). The National Bureau of Statistics' FAI year-on-year change is reported at 7.2 percent for 2017. It is unclear what accounts for the discrepancy.

2017, with slower growth in real estate investment and property prices. Real estate investment decelerated from 6.8 percent year-on-year growth in 2016 to just a 3.3 percent increase in 2017.[37] In addition, the average growth in overall property prices also decelerated to 5.6 percent in 2017 compared to 10.1 percent year-on-year growth in 2016.[38]

Figure 7: FAI Growth, 2013–2017
(year-on-year)



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

China's household consumption—a critical driver of China's new economic growth model—is not keeping pace with income growth. Growth in consumption expenditure per capita slowed to 7.1 percent year-on-year in 2017, compared with 8.9 percent year-on-year in 2016.[39] By comparison, growth of national disposable income per capita accelerated 9 percent year-on-year as the economy picked up in 2017 compared with 8.4 percent year-on-year growth in 2016.[40] Chinese households are likely increasing their savings to afford ever more costly housing—a popular investment for Chinese households that lack access to other options.

Policy Trends in China's Economy

China Clamps down on Bitcoin Mining

The Chinese government has outlined plans to discourage bitcoin mining[*] in its latest crackdown on the cryptocurrency.[†] Citing an unnamed source from the People's Bank of China (PBOC), Caixin reported on January 4 that local governments have been instructed to end preferential policies for bitcoin mining companies and "use electricity prices, land-use policy, taxation and environmental measures to 'guide' companies out of the bitcoin mining business."[41] According to Bloomberg, the PBOC outlined plans in early January to limit the industry's electricity consumption, further squeezing an industry reliant on energy-intensive computer networks to generate new units and process transactions.[42]

Although these moves fall short of a ban, they could end China's dominance in bitcoin mining. China is home to many of the world's largest bitcoin mines and is estimated to mine about three-quarters of the world's supply of

[*] The bitcoin "mining" process involves "miners" solving complex mathematical problems to generate new bitcoins. Miners also validate and add transactions to the public ledger, also known as the blockchain. Investopedia, "Bitcoin Mining." *http://www.investopedia.com/terms/b/bitcoin-mining.asp*.

[†] The government's increasing scrutiny of bitcoin miners follows China's ban on initial coin offerings and shutdown of local exchanges last September. For more on China's previous clampdown on cryptocurrencies, see U.S.-China Economic and Security Review Commission, *Economics and Trade Bulletin*, October 5, 2017, 3–6. *https://www.uscc.gov/sites/default/files/trade_bulletins/October%202017%20Trade%20Bulletin_0.pdf*.

bitcoins.[43] Chinese bitcoin miners have taken advantage of cheap electricity in regions rich in coal or hydroelectric power, such as Inner Mongolia, Sichuan, Yunnan, and Xinjiang.[*] [44] Chinese regulators are concerned about the financial stability risks posed by bitcoin and, to a lesser extent, the industry's high electricity consumption.[†]

Facing a tougher policy environment, some of China's largest bitcoin mining companies are eyeing opportunities overseas.[45] Bitmain, which operates two of the world's bitcoin-mining pools, is setting up regional headquarters in Singapore and is looking at sites in Canada and Switzerland.[46] BTC.Top, the third-largest mining pool, is opening a facility in Canada.[47] "We chose Canada because of the relatively cheap cost, and the stability of the country and policies," BTC.Top founder Jiang Zhuoer said in an interview.[48]

The price of bitcoin surged by more than 13-fold in 2017, but it has dropped by 50 percent since its peak in mid-December 2017.[49] China's crackdown comes amid increased scrutiny of cryptocurrencies from regulators worldwide over their volatility and risks to investors.[50] Notably, on January 23, South Korea announced measures requiring trades in cryptocurrencies be conducted from real-name bank accounts.[51] According to South Korea's Financial Services Commission, the regulatory measures are intended to "reduce room for cryptocurrency transactions to be exploited for illegal activities, such as crimes, money laundering and tax evasion."[52]

In prepared testimony to the Senate Banking Committee on January 17, Sigal Mandelker, Undersecretary for Terrorism and Financial Intelligence at the U.S. Department of the Treasury, said the department views virtual currencies as an "evolving threat" and is working with the Internal Revenue Service to examine virtual currency providers to ensure they are not being used to finance illegal activities.[53] On January 30, the U.S. Securities and Exchange Commission halted an allegedly fraudulent initial coin offering[‡] that asked investors to fund what was claimed to be the world's first "decentralized bank."[54] Facebook announced on the same day it would ban all ads on its platform that promote cryptocurrencies and initial coin offerings in order to "eliminate promotions of financial products and services frequently associated with misleading or deceptive promotional practices."[55]

China's Central Bank Adjusts Exchange Rate Management Regime

The PBOC has reportedly made a change to the regime used to manage the renminbi (RMB), removing a component known as the "counter-cyclical adjustment factor" used by Chinese banks to calculate their submissions to the currency's daily reference rate against the U.S. dollar.[56]

China introduced the countercyclical adjustment factor in May 2017 as way of curbing RMB volatility, which had weakened for three straight years, prompting the introduction of tighter capital controls.[57] The factor was aimed at counteracting sentiment-driven volatility in the market and the "potential for herd behavior," according to a statement made by China Foreign Exchange Trade System—the country's official interbank trading platform—when the factor was introduced.[58] Analysts said it gave the PBOC more control over the RMB and enhanced its ability to prevent RMB depreciation, but undercut earlier efforts to make the RMB more market driven.[59]

The PBOC allows the RMB's value against the dollar to fluctuate by 2 percent above or below the daily reference rate, which is based on the previous day's closing price as well as the exchange rate movements of a broad basket of major currencies.[60] The inclusion of the adjustment factor made it almost impossible for the market to estimate each day's reference rate, due to the PBOC's lack of transparency about how the factor is determined.[61] Goldman

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[*] In Ordos, a city in Inner Mongolia, Bitmain, a major bitcoin miner, reportedly enjoyed a subsidized electricity rate of just $0.04 per kilowatt-hour (kWh), a rate much lower than in the United States, where industrial customers pay $0.068 per kWh on average. In Yunnan and Sichuan provinces, bitcoin mining companies that negotiated directly with hydropower stations paid even lower rates—less than $0.02 per kWh. *Seeking Alpha*, "Assessing China's Bitcoin 'Mining Ban,'" January 8, 2018. *https://seekingalpha.com/article/4135805-assessing-chinas-bitcoin-mining-ban*; U.S. Energy Information Administration, "Table 5.6.A. Average Price of Electricity to Ultimate Customers by End-Use Sector, by State, November 2017 and 2016 (Cents per Kilowatthour)," *Electric Power Monthly*, January 24, 2018. *https://www.eia.gov/electricity/monthly/epm_table_grapher.php?t=epmt_5_6_a*.

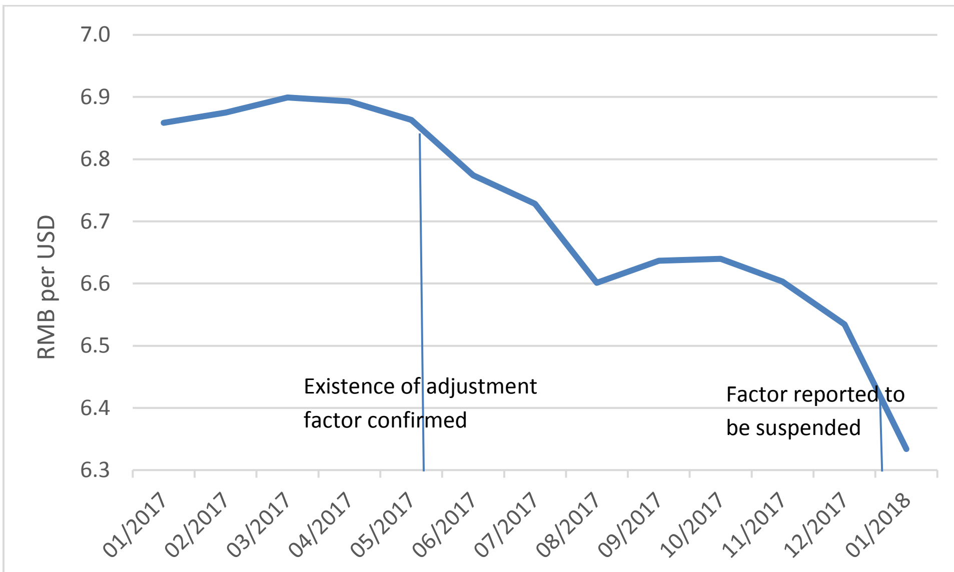
[†] According to Caixin, a source close to Chinese regulators estimates "the average annual use of electricity to mine bitcoins domestically is equivalent to the electricity used to power 50 million households [in China]." Wu Yujian et al., "China Clamps down on Preferential Treatment for Bitcoin Mines," *Caixin*, January 4, 2018. *https://www.caixinglobal.com/2018-01-04/china-clamps-down-on-preferential-treatment-for-bitcoin-mines-101193622.html*.

[‡] Initial coin offerings are a largely unregulated fundraising method for cryptocurrency ventures, blending elements of crowdfunding and traditional initial public offerings. Sid Kalla, "What Is a Token Sale (ICO)?" *Smith + Crown*, June 21, 2016. *https://www.smithandcrown.com/what-is-an-ico*.

Sachs estimates that on most days since October 2017, the daily reference rate ended up stronger after the factor was added.[62]

Analysts said the removal of the adjustment factor demonstrates China's confidence in the RMB's trajectory, which has steadily appreciated over the past year.[63] Greater control over the daily reference rate—along with a steady economy and retreat in the dollar—fueled a rally in the RMB in the second half of 2017 (see Figure 8).[64] A 7.7 percent appreciation of the RMB against the dollar since May 2017 has helped shore up China's foreign exchange reserves.[65] In December 2017, China's foreign exchange reserves rose $20.2 billion from November to $3.14 trillion, the highest since September 2016.[66] Market analysts assert the RMB may trade more flexibly in the near term as a result of the removal of the adjustment factor, but caution the PBOC may reintroduce the factor should market volatility increase.[67]

Figure 8: U.S. Dollar/RMB Exchange Rate, January 2017–January 2018



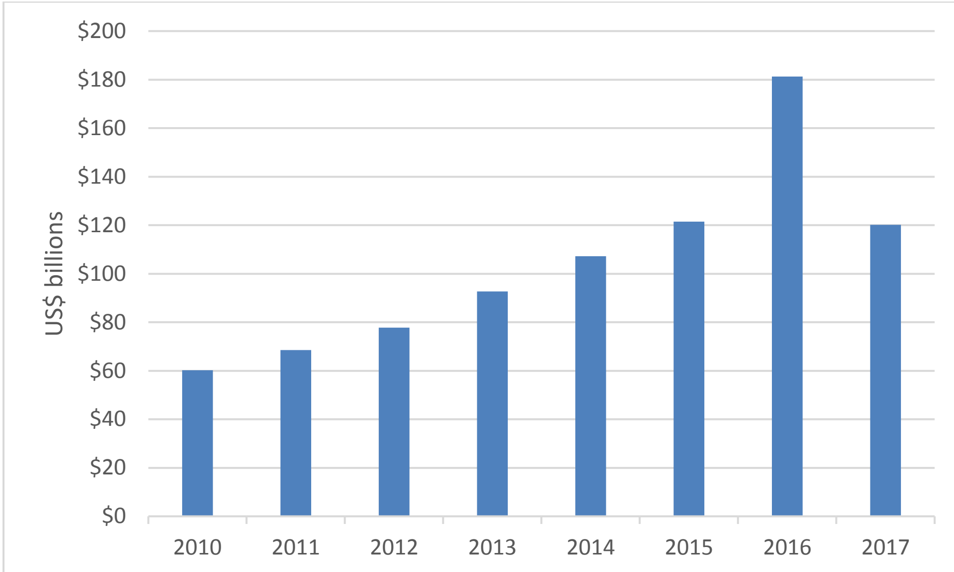
Source: The People's Bank of China via CEIC database.

Sector Focus: Chinese Outbound Investment

Chinese Capital Controls Decrease Outbound Investment

In 2017, China's outbound foreign direct investment (FDI) declined for the first time since at least 2002, the earliest year reported by China's National Bureau of Statistics.[68] Prior to 2017, China's outbound FDI steadily increased every year at an average annual rate of 35 percent from 2002 to 2016.[69] In 2017, National Bureau of Statistics data shows China's total outbound FDI fell 34 percent year-on-year, from $181 billion in 2016 to $120 billion (see Figure 9).[70]

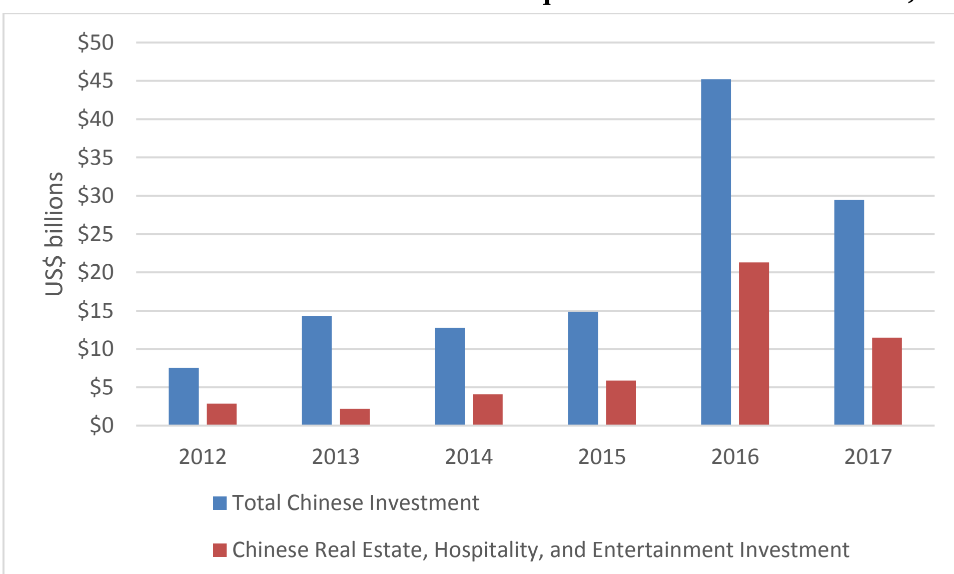
Figure 9: Chinese Outbound Nonfinancial Investment, 2010–2017



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

Data from Rhodium Group, a research firm that tracks Chinese investment in the United States, show Chinese FDI in the United States also decreased, falling 35 percent from a record high of 45 billion in 2016 to $29 billion in 2017 (see Figure 10).[71] Most of this decline occurred in Chinese investment in real estate, hospitality, and entertainment sectors, which fell precipitously from $21 billion in 2016 to $11 billion in 2017, a 46 percent decline year-on-year.[72] In 2016, the real estate, hospitality, and entertainment sectors together accounted for almost half of all Chinese investment in the United States; in 2017, these sectors received roughly 40 percent of Chinese investment.[73] Other sectors that received less Chinese investment in 2017 include basic materials (down 81 percent year-on-year), industrial machinery (a 57 percent decrease year-on-year) and the automotive sector (also down 57 percent year-on-year, see Table 3).[74]

Figure 10: Chinese Greenfield Investment and Acquisitions in the United States, 2012–2017



Source: Rhodium Group, "China Investment Monitor." *http://rhg.com/interactive/china-investment-monitor*.

Table 3: Chinese Investment in the United States by Sector, 2016–2017

(US$ millions)

Sector	2016 Investment Value	2017 Investment Value	Percent Change in Value	2016 Investment Number of Deals	2017 Investment Number of Deals
Automotive	$1,026	$437	-57%	17	14
Basic Materials	$471	$89	-81%	12	4
Entertainment	$4,780	$524	-89%	10	7
Finance and Business Services	$1,925	$1,324	-31%	13	11
Health and Biotech	$1,028	$2,546	148%	24	23
Information and Communications Technology	$3,295	$2,533	-23%	26	23
Industrial Machinery and Equipment	$207	$88	-57%	4	5
Real Estate and Hospitality	$16,528	$10,975	-34%	52	33
Transport and Infrastructure	$6,042	$10,405	72%	3	3

Source: Rhodium Group, "China Investment Monitor." *http://rhg.com/interactive/china-investment-monitor*.

Chinese FDI in the United States declined largely due to Chinese policy restrictions. China's economy faced significant capital outflows in 2016, prompting Chinese regulators to enact capital control measures early in 2017.[*] In January 2017, Chinese regulators reportedly started requiring banks to offset any outward flows of Chinese currency with inward flows from abroad.[†] Also in January 2017, Chinese authorities introduced a list of sectors that were off-limits for outbound FDI by SOEs, and reportedly held up pending foreign acquisitions with bureaucratic stalling tactics.[‡] In March 2017, China's Minister of Commerce Zhong Shan castigated "blind and irrational investment" overseas, and PBOC Governor Zhou Xiaochuan stated that Chinese acquisition of "sports, entertainment, and clubs ... didn't bring much benefit to China."[75] In August 2017, China's State Council formalized China's crackdown on outbound investment by restricting investment linked to real estate, hotels, movie theaters, sports teams, and the entertainment industry overall.[§]

According to Rhodium Group, these measures significantly curtailed Chinese outbound FDI, particularly with respect to new transactions. The value of newly announced Chinese investment in the United States fell 90 percent in 2017, from $90 billion in 2016 to $8.7 billion in 2017.[76] Roughly 60 percent of the value of completed Chinese investment transactions in the United States in 2017 was a holdover from deals announced in 2016, according to Rhodium Group.[77] This decline in newly announced investment occurred immediately after the imposition of capital controls by the Chinese government in January 2017 (see Figure 11).

[*] Chinese capital outflows totaled $416 billion in 2016, according to Chinese government statistics. State Administration of Foreign Exchange via CEIC.

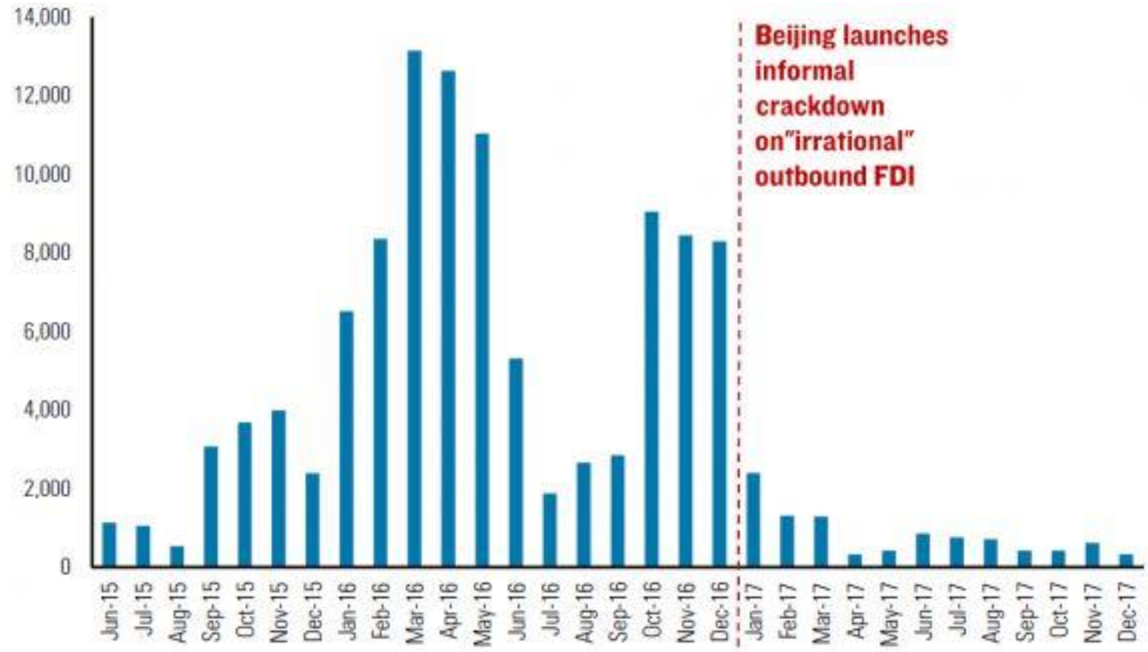
[†] According to the *Financial Times*, Chinese officials instructed banks to hide this requirement from their clients and not inform them why their overseas remittances and transactions were rejected. Tom Mitchell et al., "China Clamps down on Banks Moving Currency Overseas," *Financial Times*, January 27, 2017. *https://www.ft.com/content/c9f7d320-dee7-11e6-9d7c-be108f1c1dce*.

[‡] Reportedly, Chinese officials would continually send companies to other agencies for review in lieu of approving outbound investment. Don Weinland, "China Capital Crackdown Threatens Wave of Overseas Buyouts," *Financial Times*, February 27, 2017. *https://www.ft.com/content/091677dc-f8ec-11e6-bd4e-68d53499ed71*; Tom Mitchell et al., "China Clamps down on Banks Moving Currency Overseas," *Financial Times*, January 27, 2017. *https://www.ft.com/content/c9f7d320-dee7-11e6-9d7c-be108f1c1dce*; *Xinhua*, "China Tightens Regulation over Investment by State Firms," January 18, 2017.

[§] Investment in these sectors is considered "restricted" by Chinese authorities, meaning acquisitions will receive greater scrutiny from the government, likely resulting in more blocked transactions. Lester Ross and Kenneth Zhou, "New Policies on China's Overseas Investments," *Wilmer Hale*, September 1, 2017. *https://wilmerhalecommunications.com/26/1846/september-2017/new-policies-on-china-s-overseas-investments.asp?sid=88c751be-25e1-46af-ad96-b4df075232e6*.

Figure 11: Announced Chinese Acquisitions in the United States, June 2015–December 2017

(US$ millions)



Source: Thilo Hanemann and Daniel Rosen, "Chinese FDI in the US in 2017: A Double Policy Punch," *Rhodium Group*, January 17, 2018. *http://rhg.com/notes/chinese-fdi-in-the-us-in-2017-a-double-policy-punch*.

Acquisitions of U.S. Firms by HNA and Ant Financial Stumble, Huawei Business Partnerships Fall Apart

U.S. concerns over consumer data protection, espionage opportunities, and the ownership structure of Chinese firms have recently disrupted a few Chinese business acquisitions and operations in the United States. On January 2, Chinese Ant Financial (Alibaba's financial services affiliate) withdrew its plan to acquire U.S. money transfer firm MoneyGram for $1.2 billion.[78] The withdrawal occurred after the Committee on Foreign Investment in the United States (CFIUS) rejected Ant Financial's proposed measures to protect personal data associated with U.S. customers.[*] [79] Shortly after Ant Financial withdrew its bid, it was faulted by the Cyberspace Administration of China for failing to meet China's personal information security requirements.[80] Ant Financial was automatically enrolling its customers without notification into Sesame Credit, its in-house credit rating system that collects an exhaustive array of information on consumers, including what they purchase online, the Sesame Credit rating of their friends, and their compliance with government rules and regulations (such as their presence on Chinese government "blacklists").[†]

Chinese aviation and real estate firm HNA, which is seeking to purchase U.S. financial firm SkyBridge Capital, reportedly also ran afoul of CFIUS. According to Reuters, CFIUS has refused to approve any investment deals associated with HNA due to concerns over HNA's ownership structure.[81] U.S. software company Ness

[*] MoneyGram has a relatively large consumer base, serving tens of millions of customers globally. MoneyGram, "About MoneyGram." *http://corporate.moneygram.com/about-moneygram*.

[†] The Chinese government has begun implementing social credit systems designed to monitor the behavior of Chinese citizens, punish bad behavior, and reward behavior the government finds desirable. For example, as part of this system, Chinese citizens engaged in behavior the government deems undesirable may lose the ability to travel abroad; have restricted access to private schools for their children; face difficulty in obtaining insurance, loans, or rental agreements; and be forbidden from working in certain sectors. China currently maintains a "blacklist" of citizens it judges as subject to punishment under the system. Ant Financial's Sesame Credit has worked with the Chinese government by incorporating this blacklist into Sesame Credit's rating system. Mara Hvistendahl, "Inside China's Vast New Experiment in Social Ranking," *Wired*, December 14, 2017. *https://www.wired.com/story/age-of-social-credit/*; Rachel Botsman, "Big Data Meets Big Brother as China Moves to Rate its Citizens," *Wired*, October 21, 2017. *http://www.wired.co.uk/article/chinese-government-social-credit-score-privacy-invasion*

Technologies S.A.R.L., another target of an HNA bid, accused HNA of obfuscating its ownership during CFIUS review.* In a December 2017 lawsuit against HNA, Ness Technologies claimed the Chinese firm "covertly worked to evade and frustrate" CFIUS's review process by "discussing, planning, orchestrating and implementing various schemes to disguise the true nature of their organizations, corporate structures and ownership."[82] Ness Technologies claims CFIUS was unable to begin its review of HNA's acquisition of Ness Technologies due to "material questions about the completeness and accuracy of the information provided by HNA."[83]

On January 9, AT&T walked back a proposal to sell Huawei phones in the United States amid longstanding espionage concerns associated with Huawei equipment.[84] Later that month, U.S. carrier Verizon also terminated its plans to offer Huawei phones, reportedly over security concerns.[85] This is not the first time Huawei has come under scrutiny. In 2012, an investigation by the U.S. House of Representatives Select Committee on Intelligence advised CFIUS to block acquisitions associated with Huawei due to national security concerns, and to exclude Huawei equipment from sensitive U.S. government systems.† In 2010, Sprint excluded Huawei from a multi-billion-dollar equipment contract reportedly over government concerns that the contract would jeopardize national security.[86] In 2008, Huawei withdrew from a deal to purchase U.S. software firm 3Com, which supplied network security software to the U.S. military.[87] Huawei retracted its offer after it was clear the deal would not pass CFIUS review.[88] Most recently, in December 2017 members of Senate and House intelligence committees sent the Federal Communications Commission a letter requesting it review Huawei's relationships with U.S. companies and to consider security concerns associated with the company.[89] On January 9, 2018, Representative Michael Conaway proposed a bill that would prohibit U.S. agencies from contracting with firms that use Huawei equipment.[90]

The termination of Ant Financial's acquisition of MoneyGram and AT&T's partnership with Huawei prompted Chinese criticism. A spokesperson for China's Ministry of Commerce suggested the CFIUS review of Ant Financial was used inappropriately to block Chinese investment, noting, "We feel sorry to see that normal business investment and merger made by a Chinese enterprise in the United States was once again blocked due to the so-called national security reasons.... We do not oppose normal security review by relevant countries over foreign investment but we are concerned about the acts of setting up glass door and swing door to restrict foreign investment citing national security."[91]

Chinese media habitually claims CFIUS serves as a significant obstacle to Chinese investment in the United States, but in practice very few investment deals are canceled due to an adverse CFIUS determination. According to Treasury, in 2015 (the latest year for which official government data are available) only four transactions out of all investment directed into the United States worldwide were impeded by a CFIUS review, due either to an inability to mitigate national security concerns or to inaccuracies reported by the reviewed company.[92] In 2015, Rhodium Group reports Chinese companies completed 169 investment transactions in the United States.[93]

While some recent Chinese acquisitions have been halted, others have gone forward. On January 17, Chinese chip manufacturer NAURA, which is majority-owned by Chinese state-owned shareholders, was cleared by CFIUS to

* Other Chinese firms have taken steps to hide information or circumvent CFIUS review in recent years. In 2016, China Reform Holdings, an investment holding company controlled by China's State Council, attempted to purchase U.S. chipmaker Lattice Semiconductor through a U.S.-based shell company in an apparent effort to hide the involvement of the Chinese government in the transaction. In 2015, Chinese investment firm Fosun International acquired Wright USA, an insurance provider to U.S. officials at the Central Intelligence Agency and the Federal Bureau of Investigation. Fosun did not notify CFIUS of its acquisition, and a month after the purchase was complete, CFIUS expressed concern that Fosun may have acquired the personal information of U.S. intelligence officials. During a subsequent review, Fosun failed to disclose to CFIUS that its chairman, Guo Guangchang, has close connections to the Chinese Communist Party. For more on the Lattice and Fosun acquisitions, see U.S.-China Economic and Security Review Commission, Chapter 1, Section 2, "Chinese Investment in the United States," in *2017 Annual Report to Congress*, November 2017, 83–83. *https://www.uscc.gov/sites/default/files/Annual_Report/Chapters/Chapter%201%2C%20Section%202%20-%20Chinese%20Investment%20in%20the%20United%20States.pdf*.

† The investigation noted that Huawei (whose founder, Ren Zhengfei, served as an officer in the People's Liberation Army) may have ties to China's political and military leadership and that Huawei failed to provide credible information regarding its ownership structure and relationship to the Chinese government. U.S. House of Representatives Permanent Select Committee on Intelligence, *Investigative Report on the U.S. National Security Issues Posed by Chinese Telecommunications Companies Huawei and ZTE*, October 8, 2012. *https://intelligence.house.gov/sites/intelligence.house.gov/files/documents/huawei-zte%20investigative%20report%20(final).pdf*.

acquire U.S. semiconductor cleaning equipment manufacturer Akrion Systems.[94] The Akrion acquisition appears to be the first Chinese acquisition of a U.S. company approved by CFIUS under the Trump Administration.[*]

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[*] CFIUS does not review all U.S. investment transactions. While the acquisition of Akrion appears to be the first Chinese acquisition of a U.S. firm to pass CFIUS review under the Trump Administration, at least 141 Chinese greenfield and acquisition transactions were completed in 2017. Rhodium Group, "China Investment Monitor." *http://rhg.com/interactive/china-investment-monitor*; Greg Roumeliotis, "U.S. Clears Chinese Acquisition in Rare Move," *Reuters*, January 17, 2018. *https://www.reuters.com/article/us-akrion-m-a-naura/u-s-clears-chinese-acquisition-in-rare-move-idUSKBN1F7071*.

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