

U.S.-China Economic and Security Review Commission

Economics and Trade Bulletin



November 3, 2017

Highlights of This Month’s Edition

- **Bilateral trade:** In the third quarter of 2017, the U.S. goods trade deficit with China grew 6.7 percent due to increased imports; U.S. services exports to China reach a new record, driven by increases in tourism, financial services, and intellectual property payments.
- **Bilateral policy issues:** In a setback to China’s pursuit of market economy status, the EU adopts a new antidumping methodology and the United States implements new duties on imports of Chinese aluminum; U.S. experts and industry groups highlight several intellectual property and technology transfer challenges in China as part of the Administration’s Section 301 investigation.
- **Policy trends in China’s economy:** China delays a food safety certification program that would put \$22 billion of U.S. exports at risk by two years; after lobbying by the EU, China ends a discriminatory ban on soft cheese imports; China’s government announces changes to China’s drug approval process that—if fully implemented—may reduce approval delays for U.S. drugs by several years.
- **Quarterly review of China’s economy:** Chinese government ensures high rate of growth for China’s economy in the run-up to the 19th Party Congress, but problems remain unaddressed.
- **Sector focus – Electric Vehicles:** China transforms into the global electric vehicle leader by leveraging state support and excluding foreign competitors.

Contents

Bilateral Trade	2
U.S. Goods Trade with China.....	2
Top U.S. Exports to China Rise	2
Advanced Technology Products Deficit Increases	3
U.S. Services Trade with China.....	4
Bilateral Policy Issues	5
The EU and United States Announce New Actions Related to Duties on Chinese Goods, China’s Market Economy Status	5
U.S. Industries Report on Intellectual Property Theft and Tech Transfer during Section 301 Hearing.....	6
Policy Trends in China’s Economy	9
China Delays Restrictive Food Certification Rule, Lifts Ban on Soft Cheese Imports.....	9
China Announces Improvements to Drug Approval Process	10
Quarterly Review of China’s Economy.....	11
Old Levers Boost GDP Growth to 6.8 Percent in Q3 2017	11
Real Estate Sector Continues to Grow.....	13
State Sector Ascendant and Reforms Delayed	14
Sector Focus: Electric Vehicles.....	14

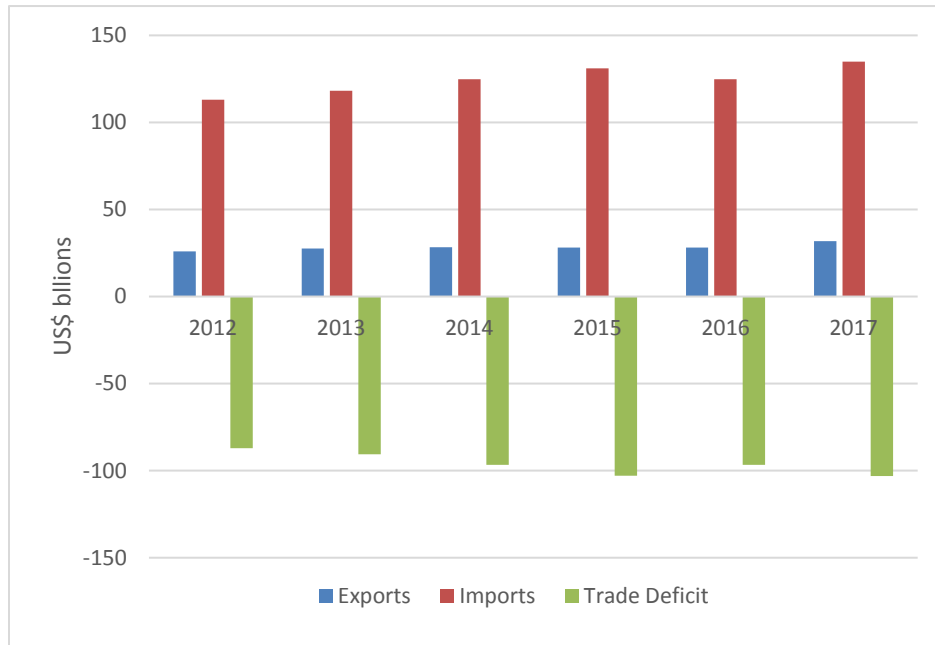
This issue of the Economics and Trade Bulletin was prepared by Nargiza Salidjanova, Han May Chan, Michelle Ker, Katherine Koleski, Sean O’Connor, and Matt Snyder. For inquiries, please contact us at contact@uscc.gov.

Bilateral Trade

U.S. Goods Trade with China

In the third quarter of 2017, the U.S. trade deficit in goods with China reached \$103.1 billion—a 6.7 percent increase over the same period in 2016—due to increased imports (see Figure 1), which grew 8.1 percent year-on-year to reach \$134.9 billion.¹ U.S. exports to China grew robustly to \$31.8 billion, up 13 percent year-on-year.²

Figure 1: Goods Trade with China, Q3 2012–Q3 2017



Source: U.S. Census Bureau, *Trade in Goods with China*, November 3, 2017. <https://www.census.gov/foreign-trade/balance/c5700.html>.

Top U.S. Exports to China Rise

U.S. exports of all top five product categories to China increased in the third quarter of 2017 (see Table 1).³ Notably, the United States' largest export to China, transportation equipment, grew 19.3 percent year-on-year to \$8.7 billion.⁴ U.S. agricultural exports, which make up 8.1 percent of U.S. exports to China, also experienced robust growth, increasing 16.8 percent compared to the third quarter of 2016.⁵ U.S. exports of chemicals and machinery rose 6.9 percent and 7.5 percent year-on-year, 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 Q3'16 (%)		Imports	Share of total (%)	Change over Q3'16 (%)
<i>Quarter 3 (Jul-Sept'17)</i>				<i>Quarter 3 (Jul-Sept'17)</i>			
Transportation Equipment	8,690.4	27.3%	19.3%	Computer & Electronic Products	47,651.9	35.3%	13.2%
Computer & Electronic Products	4,369.9	13.8%	1.2%	Miscellaneous Manufactured Commodities	12,463.6	9.2%	3.8%
Chemicals	3,420.2	10.8%	6.9%	Electrical Equipment, Appliances & Components	11,680.8	8.7%	6.1%
Agricultural Products	2,578.2	8.1%	16.8%	Apparel & Accessories	9,627.0	7.1%	-4.1%
Machinery, Except Electrical	2,170.7	6.8%	7.5%	Machinery, Except Electrical	8,886.8	6.6%	17.7%
Other	10,545.5	33.2%	-	Other	44,553.2	33.0%	-
Total	31,774.9	100.0%		Total	134,863.2	100.0%	
<i>2017 Year-to-Date</i>				<i>2017 Year-to-Date</i>			
Transportation Equipment	21,337.9	23.4%		Computer & Electronic Products	127,171.2	34.9%	
Computer & Electronic Products	12,526.7	13.8%		Electrical Equipment, Appliances & Components	31,740.3	8.7%	
Chemicals	10,926.2	12.0%		Miscellaneous Manufactured Commodities	29,274.6	8.0%	
Agricultural Products	8,448.6	9.3%		Machinery, Except Electrical	26,311.2	7.2%	
Machinery, Except Electrical	6,800.5	7.5%		Apparel & Accessories	22,174.8	6.1%	
Other	30,973.9	34.0%		Other	128,101.0	35.1%	
Total	91,013.8	100.0%		Total	364,773.1	100.0%	

Source: U.S. Census Bureau, *USA Trade Online*, November 3, 2017. <https://usatrade.census.gov/>.

In the third quarter of 2017, U.S. imports of four out the top five product categories from China saw moderate growth.⁶ Imports of Chinese computer and electronic products and machinery rose 13.2 percent and 17.7 percent year-on-year, respectively; the two product categories account for a combined 41.9 percent of U.S. imports from China.⁷ U.S. imports of apparel and accessories from China fell 4.1 percent year-on-year.⁸

Advanced Technology Products Deficit Increases

The U.S. trade deficit with China in advanced technology products (ATP) reached almost \$92 billion in the first three quarters of 2017, a 36 percent increase from the same period in 2016 (see Table 2).⁹ The main contributor to the deficit was imports of information and communications technology (ICT) products, which rose 15.4 percent year-on-year to \$39.8 billion in the third quarter of 2017.¹⁰ Chinese ICT products remain the United States' largest ATP import from China, accounting for about 90 percent of total ATP imports in the third quarter of 2017.¹¹ The largest U.S. ATP export to China, aerospace products, grew 20.5 percent year-on-year to \$5.5 billion.¹²

Table 2: ATP Trade through September 2017

(US\$ millions)

Quarter 3	Quarterly					Cumulative year-to-date			
	Exports	Imports	Balance Q3'17	Balance Q3'16	Balance YOY	Exports	Imports	Balance 2017	Balance 2016
TOTAL	10,117	44,229	-34,112	-29,193	16.8%	25,520	117,453	-91,933	-67,399
(01) Biotechnology	224	44	180	197	-8.6%	703	143	560	520
(02) Life Science	902	687	215	136	58.1%	2,670	1,946	724	571
(03) Opto-Electronics	151	1,625	-1,474	-1,380	6.8%	441	3,376	-2,935	-3,964
(04) Information & Communications	1,162	39,839	-38,677	-33,284	16.2%	3,434	106,544	-103,110	-88,393
(05) Electronics	1,585	1,224	361	548	-34.1%	4,393	3,297	1,096	1,561
(06) Flexible Manufacturing	523	365	158	303	-47.9%	2,131	977	1,154	1,459
(07) Advanced Materials	53	104	-51	-39	30.8%	206	304	-98	-89
(08) Aerospace	5,509	300	5,209	4,353	19.7%	11,325	766	10,559	10,420
(09) Weapons	0	37	-37	-41	-9.8%	0	94	-94	-99
(10) Nuclear Technology	10	3	7	13	-46.2%	213	8	205	213

Source: U.S. Census Bureau. (Washington, DC: U.S. Department of Commerce, Foreign Trade Division, November 2017).
<http://www.census.gov/foreign-trade/statistics/product/atp/2016/06/ctryatp/atp5700.html>.

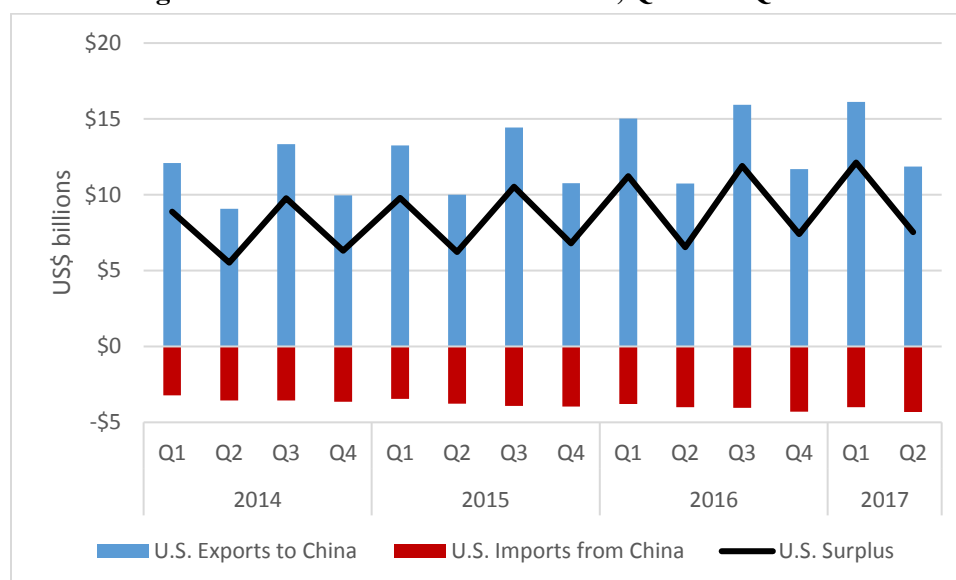
U.S. Services Trade with China

In the first half of 2017, U.S. services hit a record high of \$28 billion, up from \$25.8 billion over the first half of 2016, an 8.6 percent increase.¹³ The second quarter of 2017, saw U.S. services exports to China hit a record high of \$11.9 billion, up from \$10.7 billion over the same period in 2016, a 10.4 percent increase (see Figure 2).¹⁴ This growth in exports drove the quarterly U.S. services trade surplus with China to its highest second quarter level yet, at \$7.5 billion—up 12 percent year-on-year.¹⁵ In Q2 2017, Chinese services exports to the United States grew to \$4.3 billion from \$4 billion in Q2 2016 for 7.7 percent growth year-on-year.¹⁶

Tourism remains the top U.S. services export to China, accounting for 54 percent of all U.S. services exports to China in Q2 2017.¹⁷ In Q2 2017, U.S. tourism exports reached \$6.4 billion, up 11 percent year-on-year.¹⁸ U.S. exports of maintenance and repair services, financial services, and intellectual property charges increased significantly in the second quarter, growing 14 percent, 17 percent, and 23 percent year-on-year, respectively.¹⁹ U.S. insurance services exports dropped 22 percent year-on-year in the second quarter, from \$183 million to \$142 million.²⁰

* The U.S. government classifies 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>.

Figure 2: U.S.-China Trade in Services, Q1 2014–Q2 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*, U.S. Department of Commerce, Foreign Trade Division, October 24, 2017.

Bilateral Policy Issues

The EU and United States Announce New Actions Related to Duties on Chinese Goods, China’s Market Economy Status

In October 2017, both the United States and the EU announced new antidumping (AD) measures aimed at addressing artificially cheap exports from China. The EU introduced a new methodology for calculating AD and countervailing duties (CVD) to increase dumping margins for AD and CVD cases.²¹ The United States, meanwhile, announced preliminary AD duties on Chinese aluminum imports.²²

On October 3, the European Parliament and European Council reached an agreement on a proposal, which the European Commission had adopted in November 2016, to change the EU’s AD and CVD legislation. The change modifies how EU dumping margins are calculated for imports from members of the World Trade Organization (WTO).²³ Under the old methodology, the EU could impose AD duties on products from non-EU countries if the price of the export was lower than the normal value of the product in its domestic market and the export had a negative impact on an EU industry.²⁴ However, the dumping margin was normally calculated without consideration of price and cost distortions created by state interference, and so did not necessarily reflect the true value of the exports in the domestic industry.²⁵ With the new legislation, the EU would remove the nonmarket economy (NME) country list, and instead consider a variety of factors to determine whether there are “significant market distortions, or a pervasive state’s influence on the economy.”²⁶ Among the factors to be considered are “state policies and influence, the widespread presence of state-owned enterprises, discrimination in favor of domestic companies and the lack of independence of the financial sector.”²⁷

The new EU AD methodology will allow for other benchmarks—including use of a third, representative country’s prices—to be used to determine the dumping margin.²⁸ Although the agreement does not target any particular country, it is seen as an attempt to preempt an upcoming WTO ruling regarding the EU’s approach for applying AD duties against Chinese imports.²⁹ The agreement also strengthens the EU’s CVD legislation to allow new subsidies discovered in the course of an investigation to be included in the final duties margin.³⁰ In a statement following the agreement, European Commission President Jean-Claude Juncker said the legislation will ensure the EU has “the means to take action against unfair competition and the dumping of products in the EU market that leads to the destruction of jobs.”³¹

On October 27, the U.S. Department of Commerce imposed preliminary AD duties of between 96.8 percent and 162.2 percent on imports of aluminum foil from China, which Commerce indicated are being sold at unfairly low prices.³² The decision increased duties on Chinese aluminum products after Commerce set CVD duties at between 16.6 percent and 81 percent in August 2017.³³ According to Commerce, the decision to increase duties was made in connection with a review of China's market economy status. The review found that "at its core, the framework of China's economy is set by the Chinese government and the Chinese Communist Party, which exercise control directly and indirectly over the allocation of resources through instruments such as government ownership and control of key economic actors and government directives."³⁴ The move angered Beijing, in part because the duties were calculated based on China's status as an NME, which Beijing argues expired in December 2016.³⁵ In a statement released after the new duties were announced, Chinese Commerce Ministry official Wang Hejun asked that the United States "earnestly fulfill its international obligations, and take real action to correct its mistaken methods."³⁶

In its 2001 WTO accession protocol, China agreed to provisions allowing its trade partners to automatically treat China as an NME for 15 years for the purposes of AD enforcement. As an NME, other countries could use values from a third country in a similarly situated economic position—not Chinese prices or costs—for AD calculations, unless China could demonstrate market economy conditions prevailed in the relevant industry.³⁷ Since December 11, 2016, when section 15(a)(ii) of China's WTO accession protocol expired, the Chinese government has argued it is entitled to automatic conferral of market economy status by all WTO members, including the United States.³⁸ Although Commerce has said it would review China's status as an NME to determine whether it met the requirements of a market economy, the high duty margin against imports of aluminum foil from China shows that Commerce continues to classify as an NME for the purposes of AD enforcement.³⁹

U.S. Industries Report on Intellectual Property Theft and Tech Transfer during Section 301 Hearing

A broad selection of U.S. companies, industry associations, and academics offered testimony on intellectual property (IP) protection conditions in China as part of the Office of the U.S. Trade Representative's (USTR) section 301 investigation on Chinese technology transfer and innovation policies. In August, President Donald Trump signed a memo directing the USTR to examine China's policies and practices regarding IP and technology transfer and to determine if China's behavior is "unreasonable or discriminatory."⁴⁰ If the USTR finds the Chinese government's acts, policies, and practices are "unreasonable or discriminatory," the USTR has the statutory authority to suspend existing trade agreement concessions, impose duties or other import restrictions on foreign goods and services, withdraw or suspend preferential duty treatments, and enter into binding agreements to address the elimination of problematic acts, policies, or practices.⁴¹

While many hearing participants such as the American Bar Association (ABA), the U.S.-China Business Council (USCBC), and the National Free Trade Council (NFTC) said IP conditions in China have improved,[†] a broad array of concerns regarding China's policies were raised.⁴² These concerns include:

- *China's restrictions on investment:* Several industry associations—including the USCBC, National Association of Manufacturers (NAM), and Telecommunications Industry Association—noted Chinese equity caps on foreign investment require U.S. firms to partner with Chinese businesses to operate in China across a wide spectrum of high-tech sectors.⁴³ As the USCBC and NAM noted, these equity caps provide

* For more on China's status as an NME, see U.S.-China Economic and Security Review Commission, *Evaluation of China's Nonmarket Economy Status*, April 18, 2017. <https://www.uscc.gov/sites/default/files/Research/Non%20Market%20Economy%20Issue%20Brief.pdf>.

† According to the USCBC, China's IP protection is "slowly improving," and according to its surveys of member firms in China, most have reported either improvement or no change in China's IP environment over the past decade. The ABA noted more civil copyright cases have been filed in Chinese courts and larger damages have been awarded to victims of copyright abuse. Office of the U.S. Trade Representative, *Hearing on China's Acts, Policies, and Practices Related to Technology Transfer, Intellectual Property, and Innovation*, written testimony of Scott Partridge, September 27, 2017. <https://www.regulations.gov/docket?D=USTR-2017-0016>; Office of the U.S. Trade Representative, *Hearing on China's Acts, Policies, and Practices Related to Technology Transfer, Intellectual Property, and Innovation*, written testimony of U.S.-China Business Council, September 28, 2017. <https://www.regulations.gov/docket?D=USTR-2017-0016>.

opportunities for government officials and partner companies to ask for technology transfers as concessions during the negotiation process to form a joint venture.⁴⁴ According to the USCBC, mandatory joint ventures give Chinese companies “an inherently stronger position” in asking for technology transfers as their participation is required for U.S. firms to enter China’s many restricted sectors.⁴⁵

- *Chinese product approval practices:* Similarly, U.S. stakeholders said China’s product approval procedures may threaten their IP. The American Chamber of Commerce (AmCham) in Shanghai noted many of its members are not confident proprietary formulas or designs given to Chinese regulatory agencies are protected from distribution to their competitors.⁴⁶ The USCBC noted the structure of China’s approval process (which differentiates between foreign and Chinese firms) and the market access leverage that comes with the approval process “creates opportunities for inappropriate—and potentially illegal—requests for technology transfers” by government regulators.⁴⁷
- *Cloud computing policies:* Witnesses identified cloud computing as a sector particularly prone to discriminatory Chinese policies. According to the USCBC, in addition to being forced to partner with Chinese firms for market access, U.S. cloud computing firms are unable to obtain licenses unless they share IP and proprietary business practices with their Chinese partners.⁴⁸ The NFTC identified two draft regulations from China’s Ministry of Industry and Information Technology (MIIT) * that it called “fundamentally protectionist and anti-competitive.”⁴⁹ Taken together, according to the NFTC, these measures would prohibit U.S. cloud service companies from investing in Chinese cloud firms, prevent U.S. cloud firms from signing contracts with Chinese customers, prohibit U.S. cloud companies from broadcasting IP addresses in China or contracting with Chinese companies for Internet connectivity, and require any cooperative activity between U.S. and Chinese cloud companies to be disclosed in detail to Chinese regulators.⁵⁰ Similarly, the Business Software Alliance (BSA) said these regulations would restrict international data flows and require U.S. companies to physically locate their data in China—requirements that would harm U.S. cloud business operations in China.⁵¹
- *Difficulties navigating China’s judicial system:* U.S. industry and professional groups identified several shortcomings in China’s legal system with respect to IP protection. According to the ABA, while Chinese damages for patent violation have increased, they are still lower than those in Western countries, decreasing deterrence against IP theft.⁵² The ABA also cited a lack of discovery in Chinese civil procedure, which prevents U.S. companies from compelling Chinese patent infringers to produce evidence.⁵³ Michelman, a U.S. coating company, said the difficulty in obtaining evidence against a Chinese firm it suspects of copying its products has caused it to refrain from challenging the Chinese firm in Chinese court for fear an adverse ruling would award its IP to the suspected patent violator.⁵⁴ The American Apparel and Footwear Association and the American Chemistry Council argued costs associated with IP theft investigations are typically borne by U.S. businesses, even though such investigations should be conducted through criminal prosecution by Chinese authorities.⁵⁵
- *China’s cybersecurity law:* Several U.S. stakeholders identified China’s cybersecurity law as a risk to U.S. IP and a source of disruption for their business in China. The BSA stated the cybersecurity law was part of China’s efforts to “establish a legal basis for requiring the disclosure of source code ... associated with foreign software products.”⁵⁶ According to the BSA, security reviews under the law that require certain networks to be “secure and controllable” may open the door to requirements for foreign firms to provide their source code (one of their most valuable and sensitive proprietary assets) to Chinese regulators, who may not adequately protect their information.⁵⁷ The Consumer Technology Association and U.S. Information Technology Industry Council echoed these concerns.⁵⁸ Additionally, the USCBC stated “secure and controllable” requirements in China’s cybersecurity law effectively demand U.S. firms comply with requests for source code or proprietary information to participate in procurement by the Chinese government and state-owned entities.⁵⁹ The Telecommunications Industry Association noted China’s

* The two draft regulations are “Regulating Business Operation in Cloud Services Market (2016)” and “Cleaning up and Regulating the Internet Access Service Market (2017).” Office of the U.S. Trade Representative, *Hearing on China’s Acts, Policies, and Practices Related to Technology Transfer, Intellectual Property, and Innovation*, written testimony of National Foreign Trade Council, September 28, 2017. <https://www.regulations.gov/docket?D=USTR-2017-0016>.

cybersecurity law would likely require most firms associated with the digital economy to store their data locally in China, a requirement that would discriminatorily benefit Chinese firms.⁶⁰

- *Chinese reprisals against U.S. companies:* According to U.S. policy experts, fear of Chinese retaliation discourages U.S. businesses from cooperating with the U.S. government against harmful Chinese practices. Lee Branstetter, associate professor of economics at Carnegie Mellon University, noted U.S. firms are reluctant to cooperate with USTR investigations for fear of being blacklisted by the Chinese government. Dr. Branstetter proposed the USTR use subpoena powers to compel firms to provide information necessary to address Chinese forced technology transfers and IP theft.⁶¹ James Lewis, senior vice president at the Center for Strategic and International Studies (CSIS), agreed, adding that companies are worried the U.S. government will not adequately support them against Chinese retribution.⁶² Michelman noted that fear of retaliation by the Chinese government deterred it from pursuing a legal case against a suspected Chinese patent violator.⁶³
- *Cyber theft:* A U.S. subsidiary of the German firm SolarWorld provided testimony detailing the role of Chinese military hackers in breaching SolarWorld's servers to obtain sensitive information which they then provided to the firm's Chinese competitors.⁶⁴ However, Dr. Lewis and the USCBC argued that while cyber theft has played an important role historically in the acquisition of U.S. IP, China's government appears to be living up to the terms of the 2015 agreement between President Xi Jinping and then President Barack Obama to cease government support of commercial cyber IP theft.⁶⁵ The USCBC noted computer security firm FireEye reported a "notable decrease in reports by American companies of intrusions from suspected Chinese hackers" since 2015.⁶⁶

A few Chinese organizations submitted testimony defending conditions in China. The China General Chamber of Commerce, an organization representing Chinese enterprises in the United States, argued China is not the only country that imposes restrictions on foreign investment and noted the United States blocks some deals on national security grounds through the Committee on Foreign Investment in the United States (CFIUS).⁶⁷ However, U.S. data show CFIUS reviews have not had a chilling effect on foreign investment, and do not come close in scale to the sector-wide restrictions enforced by the Chinese government. From 2014 to 2016, only ten foreign acquisitions were withdrawn due to an unfavorable CFIUS determination.⁶⁸ The China Chamber of Commerce for Import and Export of Machinery and Electronic Products, a Chinese NGO representing Chinese exporting companies, claimed the Chinese government was not pressuring U.S. firms to transfer tech to Chinese partners and that "joint ventures and technology transfer are conducted in an independent manner by Chinese companies and U.S. companies."⁶⁹

Witnesses provided a few proposals for improving IP protection in China and limiting forced technology transfers. A broad group of industry associations and policy experts—including the USCBC, ITI, Dr. Branstetter, Dr. Lewis, the Commission on the Theft of American Intellectual Property (IP Commission), and Scott Kennedy, an expert on China's economy at CSIS—counseled against the United States acting unilaterally to improve China's performance. Instead, they urged the USTR to work with a multilateral coalition of like-minded countries to improve conditions in China.⁷⁰ Several industry groups also warned against applying broad tariffs on Chinese firms, arguing they would not affect underlying Chinese policies (according to the USCBC) or that they would invite a harmful tit-for-tat trade war (as AmCham Shanghai and the Consumer Technology Association argued).⁷¹ The USCBC advocated continuing ongoing U.S.-China dialogues to address harmful Chinese policies, such as completing a bilateral investment treaty with China to remove joint venture requirements.⁷²

However, some stakeholders argued for a new approach to address China's environment. Dr. Branstetter suggested targeted sanctions against Chinese firms involved in forced technology transfers, and proposed new legislation empowering the federal government to investigate coercive transfers and suspend business deals that appear to include forced transfer of technology.⁷³ The IP Commission proposed giving the U.S. government powers to quickly sequester imported goods at the border that utilize pirated IP, and similarly suggested sanctioning foreign companies that steal IP from the U.S. banking system.⁷⁴ Both Dr. Branstetter and the IP Commission suggested utilizing the CFIUS review process to address technology transfers in a limited way; however, the USCBC argued expanding CFIUS to broadly address U.S. policy concerns would legitimize China's current investment restrictions and encourage it to expand them.⁷⁵ Finally, Dr. Kennedy urged the United States to adopt a consistent, comprehensive approach to addressing Chinese policy, proposing the United States impose unilateral penalties when warranted but

also maintain the WTO's dispute resolution system and continue to create multilateral rules that protect IP rights.⁷⁶ Dr. Kennedy urged the United States to reinforce its prioritization of IP and tech transfer issues with effective consequences for China over time, noting that in 1993 the United States made human rights a condition for most-favored nation (MFN) status, but failed to tie human rights to MFN later on, effectively removing human rights as a central element of U.S.-China relations.⁷⁷

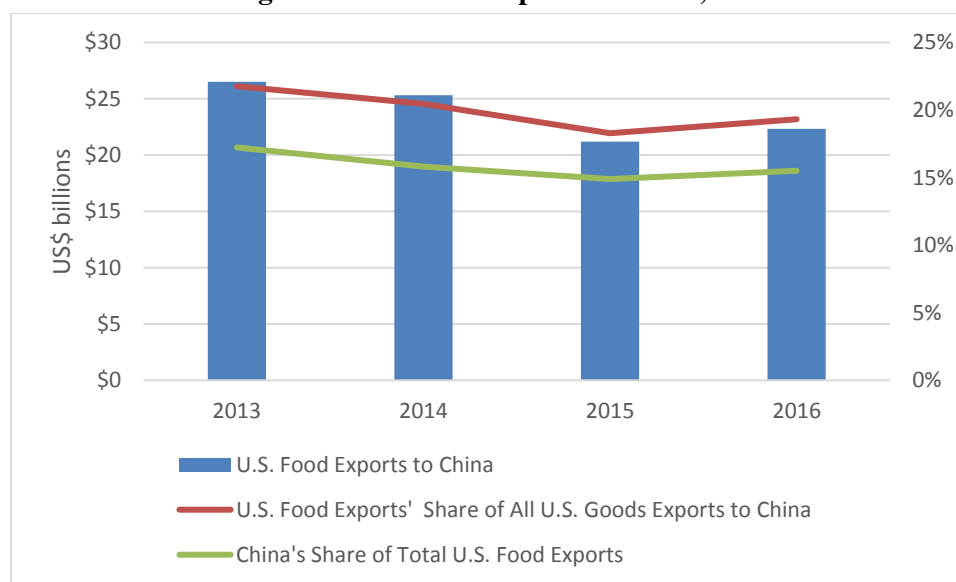
Policy Trends in China's Economy

China Delays Restrictive Food Certification Rule, Lifts Ban on Soft Cheese Imports

In September 2017, China announced it would delay implementation of a food safety certification rule that the United States, the EU, and eight other countries claim would unnecessarily restrict food exports to China.⁷⁸ The rule, which was scheduled to go into effect October 1, would require every food shipment to China be inspected and certified as safe by a foreign government in order to be allowed into China.⁷⁹ As noted by the EU Chamber of Commerce in China, requiring certification for all food imports runs counter to internationally accepted safety practices, which adopt a risk-based approach, mandating inspections only for particularly risky foods.⁸⁰ China announced it would delay implementation of its certification rule by two years but did not commit to adopting a risk-based approach to food certification in the future.⁸¹

If implemented, China's food certification rule would halt the export of several billion dollars' worth of U.S. exports to China. U.S. food exports to China totaled \$22 billion in 2016, an amount equal to 19 percent of the United States' total goods exports to China and 16 percent of the United States' food exports worldwide that year (see Figure 3).⁸² According to U.S. food industry associations, China's certification requirement would effectively deny entry to most food imports.⁸³ The United States currently lacks the administrative capacity to certify every food shipment to China. As of 2017, the U.S. Food and Drug Administration had 26 full-time export certification employees, meaning each of them would be responsible for certifying possibly hundreds of millions of dollars' worth of food shipments to China, in addition to their current responsibilities.⁸⁴

Figure 3: U.S. Food Exports to China, 2013–2016



Note: Food exports are classified here as exports of agricultural products, livestock and livestock products, fish and other marine products, food and kindred products, and beverages.

Source: U.S. Census Bureau, *USA Trade Online*. <https://usatrade.census.gov/>.

In addition to China's restrictive proposed certification rule, starting in July 2017 China applied a temporary ban on imports of all soft cheeses such as Brie, Camembert, and Roquefort on safety grounds.⁸⁵ Soft cheeses were banned due to the presence of bacteria necessary for their production.⁸⁶ The ban was based on a discriminatory

application of Chinese health standards. Under Chinese health regulations, only a few types of bacteria can be used in dairy products; however, bacteria cultures traditionally used for food production (such as penicillin in cheese) are exempted from these regulations.⁸⁷ The exemption does not apply to imports, meaning that while domestic cheese suppliers can culture soft cheeses, foreign imports are technically banned from the Chinese market.⁸⁸ William Fingleton, spokesman for the Delegation of the European Union to China, observed that the safety premise for the ban was spurious “because China considers the same cheese safe if produced in China.”⁸⁹

Following a meeting with the EU delegation in October, China lifted its ban on foreign soft cheeses.⁹⁰ Although China has had these restrictions in place for some time, they have not been applied until this summer.⁹¹ In July, China’s Administration of Quality, Supervision, Inspection, and Quarantine (AQSIQ) disposed of five tons of imported cheese, and soft cheeses in general were blacklisted for import.⁹² In 2016, the United States exported almost \$44 million worth of cheese to China, although U.S. trade data do not indicate how much of this was soft cheese subject to Chinese restrictions.⁹³

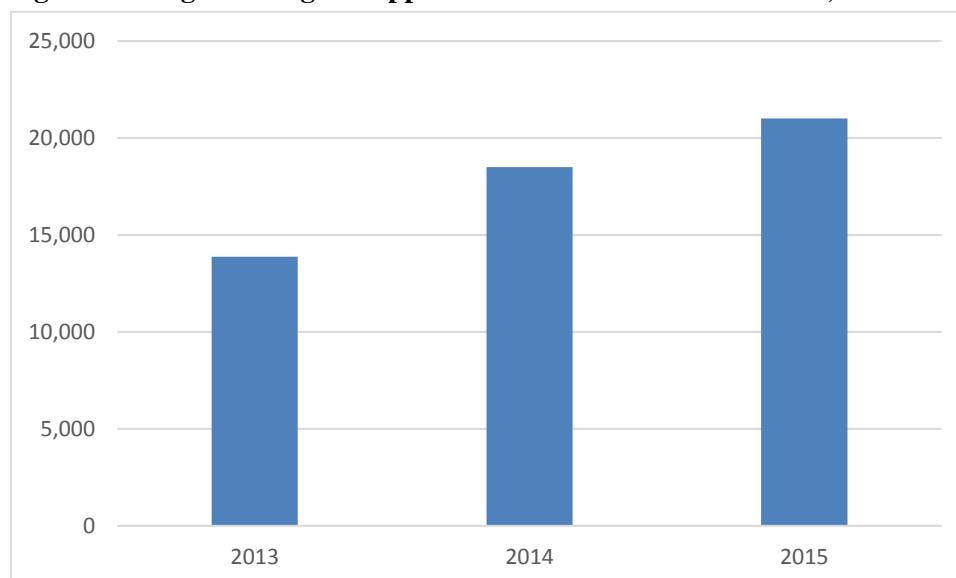
China Announces Improvements to Drug Approval Process

On October 8, 2017, the Central Committee of China’s Communist Party (CCP) revealed a new pharmaceutical approval process that is expected to speed up the ability of foreign firms to introduce new drugs in China. China has long used an asynchronous review process for foreign pharmaceuticals and biotechnology products, requiring trials of new products to reach an advanced stage in other countries before allowing Chinese trials and safety reviews to begin.⁹⁴ With respect to pharmaceuticals, this process can delay the introduction of new drugs to the Chinese market by as much as seven years compared to approval processes in the United States or Europe.⁹⁵ As China is the world’s second-largest pharmaceutical market after the United States, accounting for \$117 billion in drug sales in 2016, this delay significantly pushes back the return pharmaceutical companies receive on research and development, decreasing incentives for innovation.⁹⁶

Under the new system, some foreign drugs will not require Chinese trials if data from outside of China can be provided demonstrating the drug is safe.⁹⁷ However, these data must meet Chinese standards and must demonstrate the drug is an effective treatment for “Eastern” people, requiring foreign companies to run trials with an Asian population.⁹⁸ This new process will significantly decrease the approval time for drugs that have already run clinical trials internationally—possibly allowing imminent approval in China if the pharmaceutical firms can provide appropriate ethnicity data.⁹⁹ The new approval system also increases the number of organizations in China that can conduct clinical trials—providing speedier approval for drugs developed domestically in China—and establishes a fast-track approval process for new drugs, drugs and devices for rare diseases, and urgently needed medical devices.¹⁰⁰

Chinese regulators and foreign pharmaceutical firms have faced an ever-growing backlog of drug applications in China. The number of drugs awaiting approval for China’s market has steadily grown from almost 14,000 in 2013 to 21,000 in 2015, an increase of 51 percent (see Figure 4).¹⁰¹

Figure 4: Drugs Waiting for Approval from Chinese Government, 2013–2015



Source: Reuters, “China Drug Approval Backlog Jumped by a Third Last Year,” March 13, 2015. <http://www.reuters.com/article/us-china-pharmaceuticals/china-drug-approval-backlog-jumped-by-a-third-last-year-idUSKBN0M90QP20150313>; Zachary Brennan, “China Works to Reduce Massive Backlog of Clinical Trial and Marketing Applications,” *Regulatory Affairs Professionals Society*, February 15, 2017. <http://www.raps.org/Regulatory-Focus/News/2017/02/15/26843/China-Works-to-Reduce-Massive-Backlog-of-Clinical-Trial-and-Marketing-Applications/>.

The United States has long pressed China to end its asynchronous review of pharmaceuticals in bilateral dialogues. For example, in 2014, at the 25th U.S.-China Joint Commission on Commerce and Trade, China committed to allowing foreign drugs to begin trials in China at the same time as abroad, although this promise does not appear to have been fulfilled.¹⁰² This new system, if fully implemented, may function as a “work-around” to China’s asynchronous review. The United States has also sought to address China’s asynchronous review of biotech products, but to date has enjoyed limited success. In May, as part of the U.S.-China 100-Day Action Plan, China pledged to consider approval of eight U.S. biotech crop strains that had been awaiting review, but it has only approved four strains so far.* China’s delayed approval of U.S. biotech crops stalls their introduction worldwide as U.S. firms often wait to begin production until they receive approval from China, a large market for U.S. agriculture.¹⁰³

Foreign drug companies have experienced a drop in prices for many of their drugs in China recently, as the Chinese government has negotiated lower prices in exchange for including certain drugs in a government health insurance program.¹⁰⁴ According to the *Financial Times*, in 2016 average cuts of 44 percent were applied to 36 drugs, most of which were developed by foreign companies.¹⁰⁵ The overall effect on revenues from these drugs remains ambiguous, as their inclusion in insurance plans may drive up the volume of sales. Additionally, large foreign drug companies such as U.S.-based Eli Lilly, UK firm GlaxoSmithKline, and Swiss firm Novartis have closed or decreased research teams based in China over the past year.¹⁰⁶ According to John Wong, chairman of greater China at Boston Consulting Group, these closures may reflect dissatisfaction with China’s research talent pool.¹⁰⁷ From 2007 to 2015, Chinese research accounted for only 2.5 percent of new pharmaceutical molecules discovered.¹⁰⁸

Quarterly Review of China’s Economy

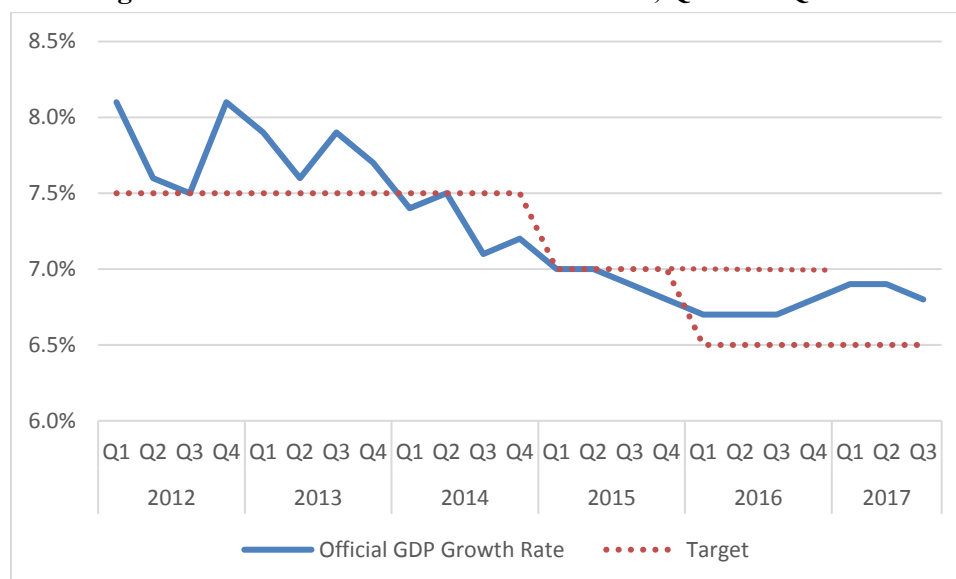
Old Levers Boost GDP Growth to 6.8 Percent in Q3 2017

China’s economy grew at a robust 6.8 percent in the third quarter of 2017, slightly below the 6.9 percent expansion in the second quarter, but still above the government’s 6.5 percent target for the full year (see Figure 5).¹⁰⁹ The

* For more on China’s slow approval of U.S. biotech crops, see U.S.-China Economic Security Review Commission, *Economics and Trade Bulletin*, July 6, 2017. <https://www.uscc.gov/sites/default/files/Research/July%202017%20Trade%20Bulletin.pdf>.

strong growth was expected as China's top leadership met for the 19th Party Congress, a twice-a-decade summit where they anointed President Xi as China's leader for another five-year term.

Figure 5: China's Official GDP Growth Rate, Q1 2012–Q3 2017

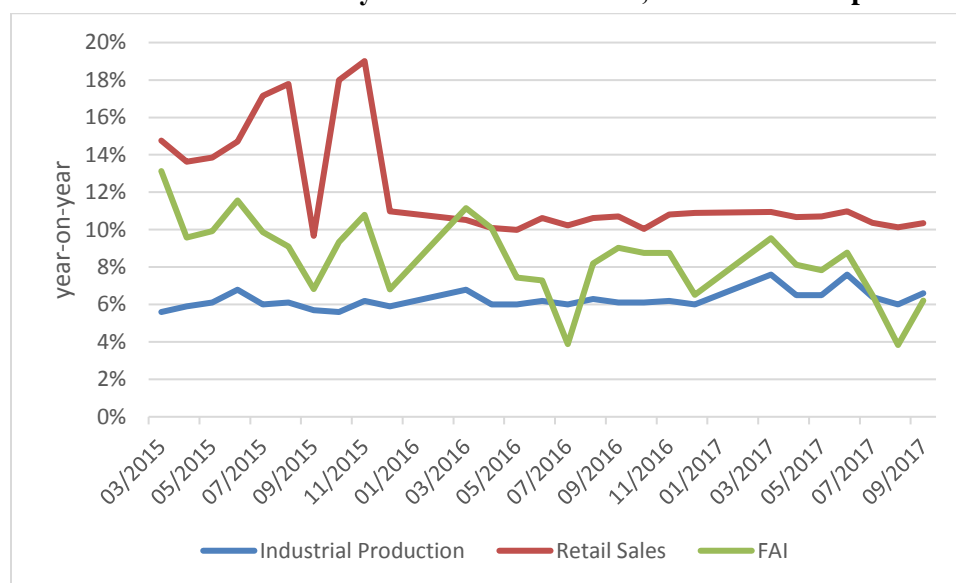


Note: In 2016, the official target was a range of between 6.5 and 7 percent.

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

In the months leading to the 19th Party Congress, the Chinese government took concerted steps to guard against any economic slowdown, which would have tarnished President Xi's image. Expansion in traditional growth drivers, such as industrial activity and real estate, and a rebound in fixed-asset investment (FAI) helped keep China's economy growing.¹¹⁰ In September 2017, overall FAI increased 6.2 percent year-on-year, while retail sales jumped 10.3 percent, and industrial production—an important indicator of manufacturing activity—increased 6.6 percent (see Figure 6).¹¹¹ The fallback on old habits to stimulate the economy worries many analysts, who fear the short-term boost adds to long-term risks, including rising debt and a property bubble.¹¹²

Figure 6: Growth in China's Key Economic Indicators, March 2015–September 2017

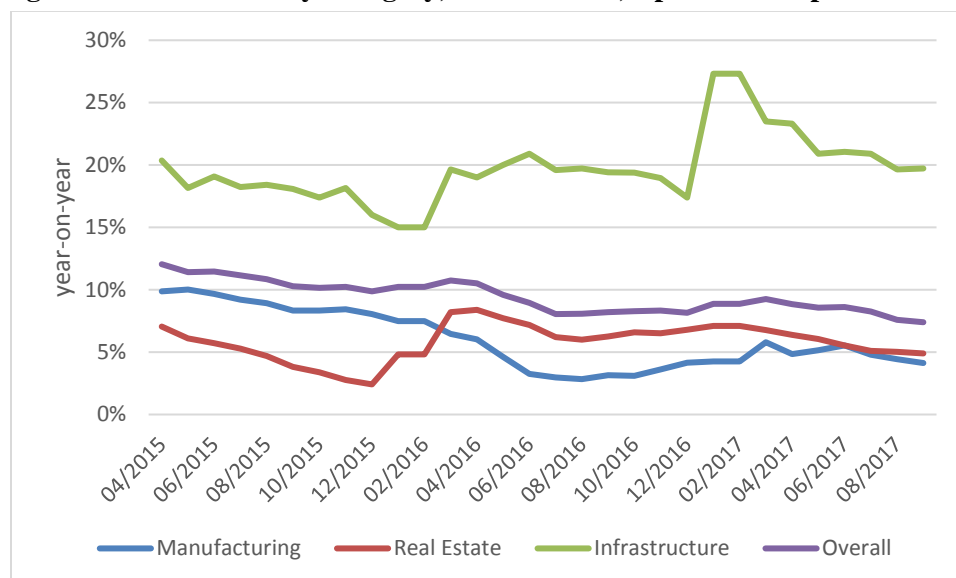


Source: China's National Bureau of Statistics via CEIC database.

Year-to-date, investment in infrastructure—where China experiences significant overcapacity—continues to dominate (see Figure 7). The recovery in real estate from its slump in 2015 continues apace, supporting the

manufacturing sector.¹¹³ Unofficial estimates of China's manufacturing Purchasing Managers' Index (PMI) by the financial media firm Caixin reached 51.0 in September.¹¹⁴ While this is down from 51.6 in August, the manufacturing PMI remains above the 50 mark, meaning it maintained expansion for the fourth month in a row.¹¹⁵

Figure 7: FAI Growth by Category, Year-to-Date, April 2015–September 2017



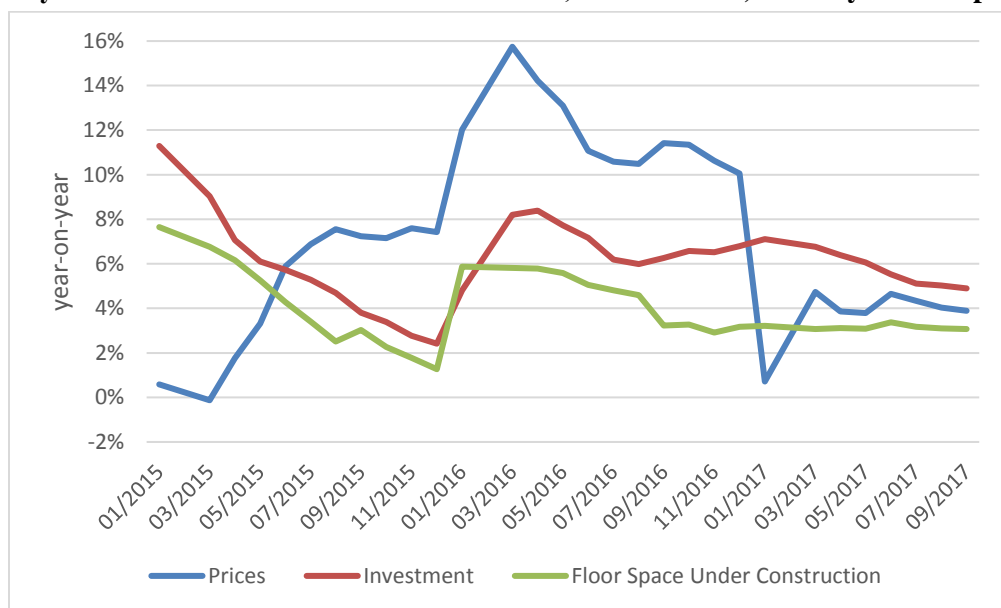
Source: China's National Bureau of Statistics via CEIC database.

Real Estate Sector Continues to Grow

Although Chinese regulators, fearing a bubble, have been trying to tamp down growth in the real estate sector,* it continues to increase (see Figure 8). Because they lack other options due to limited financial reforms, Chinese households continue to favor real estate purchases as a form of investment. According to data from E-House China Research Institute, a Shanghai-based research firm, “38 percent of all bank loans issued in the 12 months to August were home mortgages.”¹¹⁶ In fact, the contribution of the real estate sector is so important to China's economy, that in 2016, property investment directly contributed 10 percent to China's GDP; this share expands to 20 percent when collateral industries like glass, steel, and home appliances are added to the calculation.¹¹⁷

* Among other measures, Chinese regulators have tried to crack down on the use of consumer loans for home purchases, and introduced restrictions on mortgages and purchases of second homes. Xinning Liu and Gabriel Wildau, “China Steps up Battle against Runaway Property Prices,” *Financial Times*, October 1, 2017. <https://www.ft.com/content/c309a7aa-a4cb-11e7-9e4f-7f5e6a7c98a2>.

Figure 8: Key Indicators in China's Real Estate Sector, Year-to-Date, January 2015–September 2017



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

State Sector Ascendant and Reforms Delayed

Although in his speech delivered at the start of the 19th Party Congress President Xi spoke of allowing “the market to play a decisive role in the allocation of resources,”¹¹⁸ data point to the ascendance of the state in the country's economic activity. In the first nine months of 2017, FAI by private companies grew only 6 percent year-on-year, while FAI by state-owned enterprises (SOEs) grew 11 percent.¹¹⁹ Over the same period, profits of large SOEs grew 18.4 percent year-on-year to \$167 billion.¹²⁰ This tracks closely with another pledge by President Xi—to ensure “stronger, better and bigger state assets.”¹²¹

Meanwhile, long-standing problems like industrial overcapacity and local government debt remain unaddressed. Tackling them will entail significant economic disruption and political pain, which the government appears unwilling to tolerate for fear of social instability.¹²² In a move some analysts interpreted as a positive development, President Xi did not mention long-term growth or per capita gross domestic product (GDP) targets for China's economy, which has been standard practice in previous Party Congress addresses. This may suggest the government will at last prioritize quality of growth over quantity, and will be more tolerant of an economic slowdown.¹²³

Sector Focus: Electric Vehicles

China is the world's largest and fastest-growing automobile market, making it a critical market for foreign auto firms. Although the Chinese government spent decades trying to develop a robust domestic auto industry (including mandatory joint ventures for foreign companies), foreign automakers retain the majority of valuable technology.* Now, China aims to leapfrog existing automakers and become the international leader in electric vehicles (EVs) by leveraging its massive market and the auto sector's technological revolution.¹²⁴ Capturing the global market share in this high-value-added sector will also help China reduce pollution, and gain international prestige. These efforts have turned China into the world's largest producer and consumer of EVs by excluding foreign competitors and ensuring demand through government procurement.

* For more information on China's efforts to develop globally competitive automakers, see U.S.-China Economic and Security Review Commission, *Hearing on China's 13th Five-Year Plan*, written testimony of Crystal Chang, April 27, 2016. http://www.uscc.gov/sites/default/files/Crystal%20Chang_Written%20Testimony%20042716.pdf.

China Designates Electric Vehicles for Strong State Support

While the auto sector has long been a priority, the central government first designated EVs* as a strategic emerging industry in 2010.[†] In 2015, the central government reaffirmed its support for EVs in the Made in China 2025[‡] initiative.¹²⁵ To realize these ambitious plans, central and local governments rolled out massive subsidies to develop domestic EV firms and necessary infrastructure and generate demand. According to China's Ministry of Finance, the central government alone paid \$4.9 billion (renminbi [RMB] 33.4 billion) in EV subsidies in 2009–2015.¹²⁶ From 2015 to the first half of 2017, the Chinese newspaper *Economics Observer* estimated central and local governments provided an additional \$147.7 billion (RMB 1 trillion) in subsidies for 200 EV projects.¹²⁷

The Chinese government also subsidizes the expansion of charging stations, which are needed to increase the useful range of EVs. In October 2015, the National Energy Administration announced it will build 12,000 EV charging stations by 2020.¹²⁸ To meet this target, the Chinese government allocated \$3.7 billion (RMB 25 billion) from 2017 to 2020, with local governments announcing their own subsidies for the number of charging stations installed.¹²⁹

Beyond state support for production and infrastructure, the government has sought to boost demand by subsidizing private consumption and mandating government procurement. EV buyers enjoy a number of tax benefits, including an exemption of \$5,100 to \$8,800 (RMB 35,000–60,000) in acquisition or excise taxes and a full or partial waiver of the vehicle registration fee.¹³⁰

Despite these incentives, the government is by far the largest customer. In July 2014, the central government mandated that EVs account for 30 percent of its new car and bus purchases by 2016.¹³¹ The central government reduced subsidies available for fuel and operating expenses for local governments that failed to meet this target.¹³² Industry consulting firm JSC Automotive noted that as a result, the government accounts for nearly all EV sales from local Chinese producers.¹³³ In May 2016, the National Government Office Administration mandated that EVs account for over half of China's centrally owned vehicles by 2021, further boosting demand for domestic Chinese firms.¹³⁴ These enormous subsidies led more than 200 firms to enter this sector and contributed to an 18-fold increase in the volume of EV sales from 2013 to 2015.¹³⁵

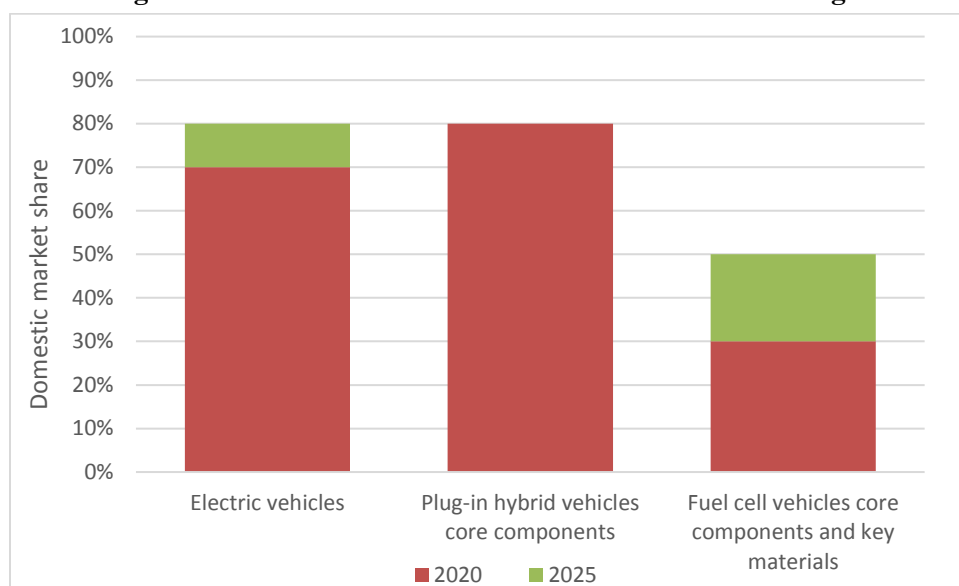
The government has also set localization targets to ensure domestically produced products and components increase their market share at home and abroad.¹³⁶ The Chinese Academy of Engineering, an influential State Council think tank, released the *Made in China 2025 Key Area Technology Roadmap* in October 2015, outlining plans to localize production for 80 percent of EV and plug-in hybrid vehicle core components by 2025, and 50 percent of fuel-cell vehicle core components and key materials by 2025 (see Figure 9).¹³⁷ In addition, the roadmap aims for Chinese-branded EVs to account for 10 percent of the global market by 2025.¹³⁸ Reaching these localization targets would gradually close China's growing market to U.S. and other foreign firms, a major loss of market and job opportunities.¹³⁹

* Official Chinese government documents refer to “new energy vehicles.” In principle, this designation refers to plug-in hybrid EVs, battery EVs, and fuel-cell EVs. Other alternatives to gasoline-powered vehicles such as hydrogen fuel cell, solar, or biodiesel vehicles are not included.

† For a comprehensive analysis of China's industrial policies for new energy vehicles from the 1990s to 2015, see Tai Ming Cheung et al., “Planning for Innovation: Understanding China's Plans for Technological, Energy, Industrial, and Defense Development,” *University of California Institute on Global Conflict and Cooperation* (prepared for the U.S.-China Economic and Security Review Commission), July 28, 2016, 229–237. <https://www.uscc.gov/sites/default/files/Research/Planning%20for%20Innovation-Understanding%20China%27s%20Plans%20for%20Tech%20Energy%20Industrial%20and%20Defense%20Development072816.pdf>.

‡ For more information on the Made in China 2025 initiative and its targets, see Katherine Koleski, “The 13th Five-Year Plan,” *U.S.-China Economic and Security Review Commission*, February 14, 2017. https://www.uscc.gov/sites/default/files/Research/The%2013th%20Five-Year%20Plan_Final_2.14.17_Updated%20%28002%29.pdf.

Figure 9: Electric Vehicle 2020 and 2025 Localization Targets



Source: Chinese Academy of Engineering, Expert Commission for the Construction of a Manufacturing Superpower, *Made in China 2025 Key Area Technology Roadmap*, October 29, 2015, 105. Translation. <http://www.cae.cn/cae/html/files/2015-10/29/20151029105822561730637.pdf>; Ministry of Industry and Information Technology, *Interpretation of “Made in China 2025”: Promoting the Development of Clean and New Energy Vehicles*, May 12, 2016. Translation. http://www.gov.cn/zhuanti/2016-05/12/content_5072762.htm.

In September 2017, the Ministry of Industry and Information Technology (MIIT) released new regulations as part of its cap-and-trade system to strengthen the demand for EVs over traditional automobiles.¹⁴⁰ EVs must account for at least 10 percent of total 2019 sales for automakers that produce or import more than 30,000 automobiles.¹⁴¹ This target increases to 12 percent of total sales by 2020.¹⁴² Those firms that do not meet these targets will need to buy credit from other EV manufacturers to maintain market access.¹⁴³ In response, General Motors (GM) announced in September 2017 that it would roll out at least ten EVs in China by 2020.¹⁴⁴ Similarly, Volkswagen will provide electric or hybrid versions of its 300 models by 2030.¹⁴⁵ By 2025, Volkswagen expects to invest \$23 billion and more than \$55 billion for EV batteries.¹⁴⁶

High Market Access Barriers Harm Foreign Competitors

Foreign automakers seeking to enter China’s auto market face high import duties, investment restrictions, and technology transfer requirements. All foreign-made automobiles face a 25 percent duty when they enter China’s market, encouraging firms to localize production.¹⁴⁷ For example, Tesla’s Model S costs \$69,500 in the United States, but due to the import duty, this price increases to \$104,972 in China.¹⁴⁸

To produce and sell in China without this 25 percent import duty, foreign automakers and EV parts manufacturers must form joint ventures with Chinese firms.¹⁴⁹ These joint ventures allow foreign firms to avoid the 25 percent import duty but force them to split the profits of any sales and list all EVs produced or sold under these joint ventures under a Chinese brand.¹⁵⁰ Foreign automakers also have to form joint ventures with Chinese state-owned automakers to produce traditional automobiles.¹⁵¹ Crystal Chang, lecturer in political science at University of California, Berkeley, noted that nearly three decades of required joint ventures have created an interdependent production model, where foreign automakers maintain technological and marketing expertise and Chinese state-owned automakers excel in production.¹⁵²

Foreign automakers have been reluctant to form EV joint ventures due to concerns over technology transfer requirements and IP theft.¹⁵³ Since 2009, the MIIT has required foreign firms to transfer at least one of the three key technologies (motor, inverter, or battery) to their Chinese joint venture partner.¹⁵⁴ In January 2017, new regulations required domestic firms to “master” all three core technologies and control core EV research and

development—in effect raising the bar for technology transfer and potentially placing IP at even greater risk.¹⁵⁵ The European Chamber of Commerce criticized this regulation as a violation of China’s obligations under the WTO.¹⁵⁶

In 2017, the Chinese government implemented a number of policies to encourage foreign investment and participation in its EV sector. Since June 2017, the Chinese government allowed foreign firms to form up to three joint ventures (previously two) to produce EVs in China.¹⁵⁷ In July 2017, the National Development and Reform Commission and the Ministry of Commerce jointly released the *Catalogue for the Guidance of Foreign Investment Industries* that relaxed restrictions on foreign investment in EV power battery manufacturing and other components.¹⁵⁸

While China has lifted restrictions on investing in China’s electric batteries, according to MIIT only 57 electric battery manufacturers—all of them Chinese—qualify for EV subsidies.¹⁵⁹ Leading foreign electric battery brands such as Samsung SDI or Panasonic Corporation built their battery factories in China to avoid the high import tariff. However, the MIIT did not grant them eligibility for EV subsidies, effectively cutting them out of the domestic market despite their power and cost advantages over Chinese competitors.¹⁶⁰

On November 2, U.S. automaker Tesla, one of the world’s leading EV manufacturers, reached an agreement with the Shanghai municipality to build an EV factory in Shanghai’s free trade zone (where it could maintain 100 percent ownership) beginning in 2019.¹⁶¹ While this plant would allow Tesla to increase its production and reduce distribution costs to a rapidly growing market, any production from this factory sold in the Chinese market would still face the 25 percent import duty, limiting the benefits.¹⁶²

State Support Transforms China into an EV Leader, but Overcapacity Looms

In just five years, China’s strong industrial policies successfully transformed China into the world’s largest EV manufacturer and EV market. In 2016, China accounted for 43 percent of the total EVs produced worldwide, compared with Germany at 23 percent and the United States at 17 percent.¹⁶³ That same year, nine Chinese EV firms ranked in the top 20 global EV firms.¹⁶⁴ Chinese automaker BYD, the global leader, overtook Tesla to become the market leader by volume in 2015.¹⁶⁵ By 2016, BYD accounted for 13 percent of the global market, followed by Tesla at 9 percent and German automaker BMW at 7 percent.¹⁶⁶

In 2016, China overtook the United States for the largest number of EVs sold globally at 351,000 EVs, accounting for roughly 45 percent of the global market.¹⁶⁷ By comparison, the United States accounted for 28.6 percent of the EV market with 221,000 EVs sold in 2016.¹⁶⁸ This is a massive jump from 2015, when the United States and China were roughly equal in the number of EVs sold at 196,000 and 190,000, respectively.¹⁶⁹ In the first nine months of 2017, EV sales in China reached around 400,000, a 37.7 percent year-on-year increase.¹⁷⁰ The industrial group China Association of Automobile Manufacturers estimated 700,000 EVs will be sold in China in 2017, a new high.¹⁷¹

This rapid ascent comes at the cost of significant fraud and emerging overcapacity. To qualify for subsidies, firms began illegally registering conventional vehicles as electric, substituting government-approved batteries with smaller, less powerful, and less expensive ones during production, and creating fake clients.¹⁷² A national investigation by MIIT, the Ministry of Finance, the Ministry of Science and Technology, and the National Development and Reform Commission revealed that at least 2 percent of EV sales between 2013 and 2015 were fraudulent.¹⁷³ In September 2016, China’s Ministry of Finance fined BYD, King Long United Automotive Industry, Gemsea Bus Manufacturing Company, and two other Chinese firms for fraudulently collecting \$147.7 million (RMB 1 billion) in subsidies.¹⁷⁴

Massive state subsidies also created vast overproduction and overcapacity in EVs and batteries. Song Qiuling, a senior official with China’s Ministry of Finance, warned in October 2017 that the sector has too much low-end product capacity with little high-end capacity to compete globally.¹⁷⁵ Based on a review of 21 EV automakers’ plans in 2016, China expects to have an annual EV production capacity of around seven million by 2020—more than three times MIIT’s two million EV sales target for the same year.¹⁷⁶ By 2016, China’s EV battery industry’s capacity reached 101 gigawatt-hours to supply only 27 gigawatt-hours’ worth of demand, a 74 gigawatt-hours surplus.¹⁷⁷

To rein in this surge, the Ministry of Finance announced in May 2015 higher eligibility requirements and a scaling-down of the subsidy program to encourage greater competition and innovation.¹⁷⁸ For example, only electric battery

firms that had at least 9 gigawatt-hours of annual production capacity would be eligible for subsidies.¹⁷⁹ But rather than slow capacity expansion, these regulations prompted producers to raise production capacity to meet that requirement, repeating the same cycle that created China's steel and solar* overcapacity.¹⁸⁰ China Industrial Association of Power Sources predicts battery capacity to reach 180 gigawatt-hours in 2017.¹⁸¹

In addition, the central government plans to reduce subsidies by 20 percent from 2016 levels between 2017 and 2018, and 40 percent between 2019 and 2020.¹⁸² However, since the government is propping up demand, it is unclear how attractive EVs will be to the average Chinese citizen without such subsidies, potentially creating a vast supply of unsold EVs¹⁸³ that could be dumped on the international market.

Disclaimer: The U.S.-China Economic and Security Review Commission was created by Congress to report on the national security implications of the bilateral trade and economic relationship between the United States and the People's Republic of China. For more information, visit www.uscc.gov or join the Commission on Facebook!

This report is the product of professional research performed by the staff of the U.S.-China Economic and Security Review Commission, and was prepared at the request of the Commission to support its deliberations. Posting of the report to the Commission's website is intended to promote greater public understanding of the issues addressed by the Commission in its ongoing assessment of U.S.-China economic relations and their implications for U.S. security, as mandated by Public Law 106-398 and Public Law 113-291. However, it does not necessarily imply an endorsement by the Commission, any individual Commissioner, or the Commission's other professional staff, of the views or conclusions expressed in this staff research report.

* For in-depth analysis of China's wind and solar policies, see Jacob Koch-Weser and Ethan Meick, "China's Wind and Solar Sectors: Trends in Deployment, Manufacturing, and Energy Policy," *U.S.-China Economic and Security Review Commission*, March 9, 2015. https://www.uscc.gov/sites/default/files/Research/Staff%20Report_China%27s%20Wind%20and%20Solar%20Sectors.pdf.

- ¹ U.S. Census Bureau, *Trade in Goods with China*, November 3, 2017. <https://www.census.gov/foreign-trade/balance/c5700.html>.
- ² U.S. Census Bureau, *Trade in Goods with China*, November 3, 2017. <https://www.census.gov/foreign-trade/balance/c5700.html>.
- ³ U.S. Census Bureau, *USA Trade Online*, November 3, 2017. <https://usatrade.census.gov/>.
- ⁴ U.S. Census Bureau, *USA Trade Online*, November 3, 2017. <https://usatrade.census.gov/>.
- ⁵ U.S. Census Bureau, *USA Trade Online*, November 3, 2017. <https://usatrade.census.gov/>.
- ⁶ U.S. Census Bureau, *USA Trade Online*, November 3, 2017. <https://usatrade.census.gov/>.
- ⁷ U.S. Census Bureau, *USA Trade Online*, November 3, 2017. <https://usatrade.census.gov/>.
- ⁸ U.S. Census Bureau, *USA Trade Online*, November 3, 2017. <https://usatrade.census.gov/>.
- ⁹ U.S. Census Bureau. (Washington, DC: U.S. Department of Commerce, Foreign Trade Division, November 2017). <http://www.census.gov/foreign-trade/statistics/product/atp/2016/06/ctryatp/atp5700.html>.
- ¹⁰ U.S. Census Bureau. (Washington, DC: U.S. Department of Commerce, Foreign Trade Division, November 2017). <http://www.census.gov/foreign-trade/statistics/product/atp/2016/06/ctryatp/atp5700.html>.
- ¹¹ U.S. Census Bureau. (Washington, DC: U.S. Department of Commerce, Foreign Trade Division, November 2017). <http://www.census.gov/foreign-trade/statistics/product/atp/2016/06/ctryatp/atp5700.html>.
- ¹² U.S. Census Bureau. (Washington, DC: U.S. Department of Commerce, Foreign Trade Division, November 2017). <http://www.census.gov/foreign-trade/statistics/product/atp/2016/06/ctryatp/atp5700.html>.
- ¹³ 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, October 24, 2017.
- ¹⁴ 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, October 24, 2017.
- ¹⁵ 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, October 24, 2017.
- ¹⁶ 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, October 24, 2017.
- ¹⁷ 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, October 24, 2017.
- ¹⁸ 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, October 24, 2017.
- ¹⁹ 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, October 24, 2017.
- ²⁰ 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, October 24, 2017.
- ²¹ European Commission, *The EU Is Changing its Anti-Dumping and Anti-Subsidy Legislation to Address State Induced Market Distortions*, October 3, 2017. http://europa.eu/rapid/press-release_MEMO-17-3703_en.htm.
- ²² U.S. Department of Commerce International Trade Administration, *Commerce Issues Preliminary Determination in Antidumping Duty Investigations of Imports of Aluminum Foil from the People's Republic of China*, October 27, 2017. https://www.commerce.gov/sites/commerce.gov/files/commerce_issues_preliminary_determination_in_antidumping_duty_investigation_of_imports_of_aluminum_foil_from_the_peoples_republic_of_china.pdf.
- ²³ European Commission, *The EU Is Changing its Anti-Dumping and Anti-Subsidy Legislation to Address State Induced Market Distortions*, October 3, 2017. http://europa.eu/rapid/press-release_MEMO-17-3703_en.htm.
- ²⁴ European Commission, *Anti-Dumping*, October 2014. <http://ec.europa.eu/trade/policy/accessing-markets/trade-defence/actions-against-imports-into-the-eu/anti-dumping/>.
- ²⁵ European Commission, *The EU Is Changing its Anti-Dumping and Anti-Subsidy Legislation to Address State Induced Market Distortions*, October 3, 2017. http://europa.eu/rapid/press-release_MEMO-17-3703_en.htm.
- ²⁶ European Commission, *Commission Welcomes Agreement on New Anti-Dumping Methodology*, October 3, 2017. <http://trade.ec.europa.eu/doclib/press/index.cfm?id=1735>.
- ²⁷ European Commission, *Commission Welcomes Agreement on New Anti-Dumping Methodology*, October 3, 2017. <http://trade.ec.europa.eu/doclib/press/index.cfm?id=1735>.
- ²⁸ European Commission, *The EU Is Changing its Anti-Dumping and Anti-Subsidy Legislation to Address State Induced Market Distortions*, October 3, 2017. http://europa.eu/rapid/press-release_MEMO-17-3703_en.htm.
- ²⁹ Jim Brunsten, “EU Reached Deal on New Anti-Dumping Rules,” *Financial Times*, October 3, 2017. <https://www.ft.com/content/f7a4d939-ac83-305b-991b-bae2d607d7ac>.
- ³⁰ European Commission, *Commission Welcomes Agreement on New Anti-Dumping Methodology*, October 3, 2017. http://europa.eu/rapid/press-release_IP-17-3668_en.htm.
- ³¹ European Commission, *Commission Welcomes Agreement on New Anti-Dumping Methodology*, October 3, 2017. http://europa.eu/rapid/press-release_IP-17-3668_en.htm.
- ³² U.S. Department of Commerce International Trade Administration, *Commerce Issues Preliminary Determination in Antidumping Duty Investigations of Imports of Aluminum Foil from the People's Republic of China*, October 27, 2017. https://www.commerce.gov/sites/commerce.gov/files/commerce_issues_preliminary_determination_in_antidumping_duty_investigation_of_imports_of_aluminum_foil_from_the_peoples_republic_of_china.pdf.

- ³³ U.S. Department of Commerce International Trade Administration, *U.S. Department of Commerce Issues Affirmative Preliminary Countervailing Duty Determination on Aluminum Foil from the People's Republic of China*, August 8, 2017. <https://www.commerce.gov/news/press-releases/2017/08/us-department-commerce-issues-affirmative-preliminary-countervailing-0>.
- ³⁴ U.S. Department of Commerce International Trade Administration, *China's Status as a Non-Market Economy*, October 26, 2017. <https://enforcement.trade.gov/download/prc-nme-status/prc-nme-review-final-103017.pdf>.
- ³⁵ Adam Behsudi, "The Trade Case Heard Round the World," *Politico Morning Trade*, October 30, 2017.
- ³⁶ Reuters, "China Angered over U.S. Aluminum Foil Anti-Dumping Duties," October 28, 2017. <https://www.reuters.com/article/us-usa-china-aluminium/china-angered-over-u-s-aluminum-foil-anti-dumping-duties-idUSKBN1CY02L>.
- ³⁷ Alan Price, Timothy Brightbill, and Scott Nance, "The Treatment of China as a Non-Market Economy Country after 2016," Wiley Rein LLP, September 15, 2015, 2.
- ³⁸ Gary Clyde Hufbauer and Cathleen Cimino-Isaacs, "The Outlook for Market Economy Status for China," *Peterson Institute for International Economics*, April 11, 2016. <https://piie.com/blogs/trade-investment-policy-watch/outlook-market-economy-status-china>.
- ³⁹ Reuters, "China Angered over U.S. Aluminum Foil Anti-Dumping Duties," October 28, 2017. <https://www.reuters.com/article/us-usa-china-aluminium/china-angered-over-u-s-aluminum-foil-anti-dumping-duties-idUSKBN1CY02L>.
- ⁴⁰ Andrew Mayeda, "U.S. Officially Launches Investigation of China's IP Practices," Bloomberg, August 18, 2017. <https://www.bloomberg.com/news/articles/2017-08-18/u-s-officially-launches-investigation-of-china-s-ip-practices>.
- ⁴¹ Office of the U.S. Trade Representative, *Section 301*, February 6, 2017; Office of the U.S. Trade Representative, *Trade Enforcement Activities*, December 21, 2016, 174–175.
- ⁴² Office of the U.S. Trade Representative, *Hearing on China's Acts, Policies, and Practices Related to Technology Transfer, Intellectual Property, and Innovation*, written testimony of Scott Kennedy, October 10, 2017. <https://www.regulations.gov/document?D=USTR-2017-0016-0058>; Office of the U.S. Trade Representative, *Hearing on China's Acts, Policies, and Practices Related to Technology Transfer, Intellectual Property, and Innovation*, written testimony of Scott Partridge, September 27, 2017. <https://www.regulations.gov/document?D=USTR-2017-0016-0012>; Office of the U.S. Trade Representative, *Hearing on China's Acts, Policies, and Practices Related to Technology Transfer, Intellectual Property, and Innovation*, written testimony of U.S.-China Business Council, September 28, 2017. <https://www.regulations.gov/document?D=USTR-2017-0016-0033>.
- ⁴³ Office of the U.S. Trade Representative, *Hearing on China's Acts, Policies, and Practices Related to Technology Transfer, Intellectual Property, and Innovation*, written testimony of U.S.-China Business Council, September 28, 2017. <https://www.regulations.gov/document?D=USTR-2017-0016-0033>; Office of the U.S. Trade Representative, *Hearing on China's Acts, Policies, and Practices Related to Technology Transfer, Intellectual Property, and Innovation*, written testimony of Linda Dempsey, September 28, 2017. <https://www.regulations.gov/document?D=USTR-2017-0016-0018>; Office of the U.S. Trade Representative, *Hearing on China's Acts, Policies, and Practices Related to Technology Transfer, Intellectual Property, and Innovation*, written testimony of K.C. Swanson, September 28, 2017. <https://www.regulations.gov/document?D=USTR-2017-0016-0006>.
- ⁴⁴ Office of the U.S. Trade Representative, *Hearing on China's Acts, Policies, and Practices Related to Technology Transfer, Intellectual Property, and Innovation*, written testimony of U.S.-China Business Council, September 28, 2017. <https://www.regulations.gov/document?D=USTR-2017-0016-0033>; Office of the U.S. Trade Representative, *Hearing on China's Acts, Policies, and Practices Related to Technology Transfer, Intellectual Property, and Innovation*, written testimony of Linda Dempsey, September 28, 2017. <https://www.regulations.gov/document?D=USTR-2017-0016-0018>.
- ⁴⁵ Office of the U.S. Trade Representative, *Hearing on China's Acts, Policies, and Practices Related to Technology Transfer, Intellectual Property, and Innovation*, written testimony of U.S.-China Business Council, September 28, 2017. <https://www.regulations.gov/document?D=USTR-2017-0016-0033>.
- ⁴⁶ Office of the U.S. Trade Representative, *Hearing on China's Acts, Policies, and Practices Related to Technology Transfer, Intellectual Property, and Innovation*, written testimony of American Chamber of Commerce in Shanghai, 2017. <https://www.regulations.gov/document?D=USTR-2017-0016-0002>.
- ⁴⁷ Office of the U.S. Trade Representative, *Hearing on China's Acts, Policies, and Practices Related to Technology Transfer, Intellectual Property, and Innovation*, written testimony of U.S.-China Business Council, September 28, 2017. <https://www.regulations.gov/document?D=USTR-2017-0016-0033>.
- ⁴⁸ Office of the U.S. Trade Representative, *Hearing on China's Acts, Policies, and Practices Related to Technology Transfer, Intellectual Property, and Innovation*, written testimony of U.S.-China Business Council, September 28, 2017. <https://www.regulations.gov/document?D=USTR-2017-0016-0033>.
- ⁴⁹ Office of the U.S. Trade Representative, *Hearing on China's Acts, Policies, and Practices Related to Technology Transfer, Intellectual Property, and Innovation*, written testimony of National Foreign Trade Council, September 28, 2017. <https://www.regulations.gov/document?D=USTR-2017-0016-0038>.
- ⁵⁰ Office of the U.S. Trade Representative, *Hearing on China's Acts, Policies, and Practices Related to Technology Transfer, Intellectual Property, and Innovation*, written testimony of National Foreign Trade Council, September 28, 2017. <https://www.regulations.gov/document?D=USTR-2017-0016-0038>.
- ⁵¹ Office of the U.S. Trade Representative, *Hearing on China's Acts, Policies, and Practices Related to Technology Transfer, Intellectual Property, and Innovation*, written testimony of the Tommy Ross, September 28, 2017. <https://www.regulations.gov/document?D=USTR-2017-0016-0032>.
- ⁵² Office of the U.S. Trade Representative, *Hearing on China's Acts, Policies, and Practices Related to Technology Transfer, Intellectual Property, and Innovation*, written testimony of Scott Partridge, September 27, 2017. <https://www.regulations.gov/document?D=USTR-2017-0016-0012>.
- ⁵³ Office of the U.S. Trade Representative, *Hearing on China's Acts, Policies, and Practices Related to Technology Transfer, Intellectual Property, and Innovation*, written testimony of Scott Partridge, September 27, 2017. <https://www.regulations.gov/document?D=USTR-2017-0016-0012>.

-
- ⁵⁴ Office of the U.S. Trade Representative, *Hearing on China's Acts, Policies, and Practices Related to Technology Transfer, Intellectual Property, and Innovation*, written testimony of Rick Michelman, October 6, 2017. <https://www.regulations.gov/document?D=USTR-2017-0016-0059>.
- ⁵⁵ Office of the U.S. Trade Representative, *Hearing on China's Acts, Policies, and Practices Related to Technology Transfer, Intellectual Property, and Innovation*, written testimony of Steve Lamar, September 28, 2017. <https://www.regulations.gov/document?D=USTR-2017-0016-0045>; Office of the U.S. Trade Representative, *Hearing on China's Acts, Policies, and Practices Related to Technology Transfer, Intellectual Property, and Innovation*, written testimony of Alexa Burr, September 27, 2017. <https://www.regulations.gov/document?D=USTR-2017-0016-0014>.
- ⁵⁶ Office of the U.S. Trade Representative, *Hearing on China's Acts, Policies, and Practices Related to Technology Transfer, Intellectual Property, and Innovation*, written testimony of Tommy Ross, September 28, 2017.
- ⁵⁷ Office of the U.S. Trade Representative, *Hearing on China's Acts, Policies, and Practices Related to Technology Transfer, Intellectual Property, and Innovation*, written testimony of Tommy Ross, September 28, 2017. <https://www.regulations.gov/document?D=USTR-2017-0016-0032>.
- ⁵⁸ Office of the U.S. Trade Representative, *Hearing on China's Acts, Policies, and Practices Related to Technology Transfer, Intellectual Property, and Innovation*, written testimony of the U.S. Information Technology Industry Council, October 4, 2017. <https://www.regulations.gov/document?D=USTR-2017-0016-0073>; Office of the U.S. Trade Representative, *Hearing on China's Acts, Policies, and Practices Related to Technology Transfer, Intellectual Property, and Innovation*, written testimony of the Consumer Technology Association, October 4, 2017. <https://www.regulations.gov/document?D=USTR-2017-0016-0055>.
- ⁵⁹ Office of the U.S. Trade Representative, *Hearing on China's Acts, Policies, and Practices Related to Technology Transfer, Intellectual Property, and Innovation*, written testimony of U.S.-China Business Council, September 28, 2017. <https://www.regulations.gov/document?D=USTR-2017-0016-0033>.
- ⁶⁰ Office of the U.S. Trade Representative, *Hearing on China's Acts, Policies, and Practices Related to Technology Transfer, Intellectual Property, and Innovation*, written testimony of K.C. Swanson, September 28, 2017. <https://www.regulations.gov/document?D=USTR-2017-0016-0006>.
- ⁶¹ Office of the U.S. Trade Representative, *Hearing on China's Acts, Policies, and Practices Related to Technology Transfer, Intellectual Property, and Innovation*, written testimony of Lee Branstetter, September 28, 2017. <https://www.regulations.gov/document?D=USTR-2017-0016-0048>.
- ⁶² Office of the U.S. Trade Representative, *Hearing on China's Acts, Policies, and Practices Related to Technology Transfer, Intellectual Property, and Innovation*, written testimony of James Lewis, September, 2017. <https://www.regulations.gov/document?D=USTR-2017-0016-0013>.
- ⁶³ Office of the U.S. Trade Representative, *Hearing on China's Acts, Policies, and Practices Related to Technology Transfer, Intellectual Property, and Innovation*, written testimony of Rick Michelman, October 6, 2017. <https://www.regulations.gov/document?D=USTR-2017-0016-0059>.
- ⁶⁴ Office of the U.S. Trade Representative, *Hearing on China's Acts, Policies, and Practices Related to Technology Transfer, Intellectual Property, and Innovation*, written testimony of Timothy Brightbill, September 28, 2017. <https://www.regulations.gov/document?D=USTR-2017-0016-0066>.
- ⁶⁵ Office of the U.S. Trade Representative, *Hearing on China's Acts, Policies, and Practices Related to Technology Transfer, Intellectual Property, and Innovation*, written testimony of James Lewis, September, 2017 <https://www.regulations.gov/document?D=USTR-2017-0016-0013>; Office of the U.S. Trade Representative, *Hearing on China's Acts, Policies, and Practices Related to Technology Transfer, Intellectual Property, and Innovation*, written testimony of U.S.-China Business Council, September 28, 2017. <https://www.regulations.gov/document?D=USTR-2017-0016-0033>.
- ⁶⁶ Office of the U.S. Trade Representative, *Hearing on China's Acts, Policies, and Practices Related to Technology Transfer, Intellectual Property, and Innovation*, written testimony of U.S.-China Business Council, September 28, 2017. <https://www.regulations.gov/document?D=USTR-2017-0016-0033>.
- ⁶⁷ Office of the U.S. Trade Representative, *Hearing on China's Acts, Policies, and Practices Related to Technology Transfer, Intellectual Property, and Innovation*, written testimony of Chen Xu, October, 2017. <https://www.regulations.gov/document?D=USTR-2017-0016-0070>.
- ⁶⁸ U.S. Department of the Treasury, *Covered Transactions, Withdrawals, and Presidential Decisions 2014-2016*. https://www.treasury.gov/resource-center/international/foreign-investment/Documents/CFIUS_Stats_2014-2016.pdf.
- ⁶⁹ Office of the U.S. Trade Representative, *Hearing on China's Acts, Policies, and Practices Related to Technology Transfer, Intellectual Property, and Innovation*, written testimony of Wang Guiqing, September 26, 2017. <https://www.regulations.gov/document?D=USTR-2017-0016-0004>.
- ⁷⁰ Office of the U.S. Trade Representative, *Hearing on China's Acts, Policies, and Practices Related to Technology Transfer, Intellectual Property, and Innovation*, written testimony of Scott Kennedy, October 10, 2017; Office of the U.S. Trade Representative, *Hearing on China's Acts, Policies, and Practices Related to Technology Transfer, Intellectual Property, and Innovation*, written testimony of Lee Branstetter, September 28, 2017; Office of the U.S. Trade Representative, *Hearing on China's Acts, Policies, and Practices Related to Technology Transfer, Intellectual Property, and Innovation*, written testimony of U.S.-China Business Council, September 28, 2017; Office of the U.S. Trade Representative, *Hearing on China's Acts, Policies, and Practices Related to Technology Transfer, Intellectual Property, and Innovation*, written testimony of James Lewis, September, 2017. <https://www.regulations.gov/document?D=USTR-2017-0016-0013>; Office of the U.S. Trade Representative, *Hearing on China's Acts, Policies, and Practices Related to Technology Transfer, Intellectual Property, and Innovation*, written testimony of the U.S. Information Technology Industry Council, October 4, 2017. <https://www.regulations.gov/document?D=USTR-2017-0016-0073>; Office of the U.S. Trade Representative, *Hearing on China's Acts, Policies, and Practices Related to Technology Transfer, Intellectual Property, and Innovation*, written testimony of Richard Ellings, September 28, 2017. <https://www.regulations.gov/document?D=USTR-2017-0016-0044>.

- ⁷¹ Office of the U.S. Trade Representative, *Hearing on China's Acts, Policies, and Practices Related to Technology Transfer, Intellectual Property, and Innovation*, written testimony of American Chamber of Commerce in Shanghai, 2017. <https://www.regulations.gov/document?D=USTR-2017-0016-0002>; Office of the U.S. Trade Representative, *Hearing on China's Acts, Policies, and Practices Related to Technology Transfer, Intellectual Property, and Innovation*, written testimony of U.S.-China Business Council, September 28, 2017. <https://www.regulations.gov/document?D=USTR-2017-0016-0033>; Office of the U.S. Trade Representative, *Hearing on China's Acts, Policies, and Practices Related to Technology Transfer, Intellectual Property, and Innovation*, written testimony of the Consumer Technology Association, October 4, 2017. <https://www.regulations.gov/document?D=USTR-2017-0016-0055>.
- ⁷² Office of the U.S. Trade Representative, *Hearing on China's Acts, Policies, and Practices Related to Technology Transfer, Intellectual Property, and Innovation*, written testimony of U.S.-China Business Council, September 28, 2017. <https://www.regulations.gov/document?D=USTR-2017-0016-0033>.
- ⁷³ Office of the U.S. Trade Representative, *Hearing on China's Acts, Policies, and Practices Related to Technology Transfer, Intellectual Property, and Innovation*, written testimony of Lee Branstetter, September 28, 2017. <https://www.regulations.gov/document?D=USTR-2017-0016-0048>.
- ⁷⁴ Office of the U.S. Trade Representative, *Hearing on China's Acts, Policies, and Practices Related to Technology Transfer, Intellectual Property, and Innovation*, written testimony of Richard Ellings, September 28, 2017. <https://www.regulations.gov/document?D=USTR-2017-0016-0044>.
- ⁷⁵ Office of the U.S. Trade Representative, *Hearing on China's Acts, Policies, and Practices Related to Technology Transfer, Intellectual Property, and Innovation*, written testimony of Richard Ellings, September 28, 2017. <https://www.regulations.gov/document?D=USTR-2017-0016-0044>; Office of the U.S. Trade Representative, *Hearing on China's Acts, Policies, and Practices Related to Technology Transfer, Intellectual Property, and Innovation*, written testimony of Lee Branstetter, September 28, 2017. <https://www.regulations.gov/document?D=USTR-2017-0016-0048>; Office of the U.S. Trade Representative, *Hearing on China's Acts, Policies, and Practices Related to Technology Transfer, Intellectual Property, and Innovation*, written testimony of U.S.-China Business Council, September 28, 2017. <https://www.regulations.gov/document?D=USTR-2017-0016-0033>.
- ⁷⁶ Office of the U.S. Trade Representative, *Hearing on China's Acts, Policies, and Practices Related to Technology Transfer, Intellectual Property, and Innovation*, written testimony of Scott Kennedy, October 10, 2017. <https://www.regulations.gov/document?D=USTR-2017-0016-0058>.
- ⁷⁷ Office of the U.S. Trade Representative, *Hearing on China's Acts, Policies, and Practices Related to Technology Transfer, Intellectual Property, and Innovation*, written testimony of Scott Kennedy, October 10, 2017. <https://www.regulations.gov/document?D=USTR-2017-0016-0058>.
- ⁷⁸ Eva Dou, "China Delays Implementation of Food-Import Rule," *Wall Street Journal*, September 26, 2017. <https://www.wsj.com/articles/china-delays-implementation-of-food-import-rule-1506430259>; Joe McDonald, "AP Newsbreak: US, EU Urge China to Limit Food Import Control," Associated Press, June 2, 2017. <https://apnews.com/57ea5458db25436284725bf2eddb26a9>.
- ⁷⁹ Eva Dou, "China Delays Implementation of Food-Import Rule," *Wall Street Journal*, September 26, 2017. <https://www.wsj.com/articles/china-delays-implementation-of-food-import-rule-1506430259>.
- ⁸⁰ Eva Dou, "China Delays Implementation of Food-Import Rule," *Wall Street Journal*, September 26, 2017. <https://www.wsj.com/articles/china-delays-implementation-of-food-import-rule-1506430259>.
- ⁸¹ Eva Dou, "China Delays Implementation of Food-Import Rule," *Wall Street Journal*, September 26, 2017. <https://www.wsj.com/articles/china-delays-implementation-of-food-import-rule-1506430259>.
- ⁸² U.S. Census Bureau, *USA Trade Online*. <https://usatrade.census.gov/>.
- ⁸³ Eva Dou, "China Delays Implementation of Food-Import Rule," *Wall Street Journal*, September 26, 2017. <https://www.wsj.com/articles/china-delays-implementation-of-food-import-rule-1506430259>.
- ⁸⁴ U.S. Food and Drug Administration, *Justification of Estimates for Appropriations Committees*, 2017. <https://www.fda.gov/downloads/AboutFDA/ReportsManualsForms/Reports/BudgetReports/UCM566717.pdf>.
- ⁸⁵ Sherisse Pham, "Camembert Crackdown! China Bans Soft Cheese Imports," CNN, September 8, 2017. <http://money.cnn.com/2017/09/08/news/china-soft-cheese-import-ban/index.html>.
- ⁸⁶ Benjamin Haas, "Whiff of Discontent as China Bans Imports of Soft European Cheese," *Guardian*, September 10, 2017. <https://www.theguardian.com/world/2017/sep/10/whiff-of-discontent-as-china-bans-imports-of-soft-european-cheese>.
- ⁸⁷ Benjamin Haas, "Whiff of Discontent as China Bans Imports of Soft European Cheese," *Guardian*, September 10, 2017. <https://www.theguardian.com/world/2017/sep/10/whiff-of-discontent-as-china-bans-imports-of-soft-european-cheese>.
- ⁸⁸ Benjamin Haas, "Whiff of Discontent as China Bans Imports of Soft European Cheese," *Guardian*, September 10, 2017. <https://www.theguardian.com/world/2017/sep/10/whiff-of-discontent-as-china-bans-imports-of-soft-european-cheese>.
- ⁸⁹ Sherisse Pham, "Camembert Crackdown! China Bans Soft Cheese Imports," CNN, September 8, 2017. <http://money.cnn.com/2017/09/08/news/china-soft-cheese-import-ban/index.html>.
- ⁹⁰ BBC, "China Lifts Ban on Stinky Cheese," October 23, 2017. <http://www.bbc.com/news/business-41717848>.
- ⁹¹ Benjamin Haas, "Whiff of Discontent as China Bans Imports of Soft European Cheese," *Guardian*, September 10, 2017. <https://www.theguardian.com/world/2017/sep/10/whiff-of-discontent-as-china-bans-imports-of-soft-european-cheese>.
- ⁹² Bridget O'Donnell, "Everything We Know about China's Cheese Ban So Far," *That's Mags*, September 10, 2017. <http://www.thatsmags.com/shanghai/post/20554/everything-we-know-about-china-s-cheese-ban-so-far>.
- ⁹³ U.S. Census Bureau, *USA Trade Online*. <https://usatrade.census.gov/>.
- ⁹⁴ Tom Hancock, "China Hastens Drug Approval with Embrace of Foreign Data," *Financial Times*, October 9, 2017. <https://www.ft.com/content/a7e73928-acd8-11e7-aab9-abaa44b1e130>; Office of the U.S. Trade Representative, *2017 National Trade Estimate Report on Foreign Trade Barriers*, 2017. <https://ustr.gov/sites/default/files/files/reports/2017/NTE/2017%20NTE.pdf>.

- ⁹⁵ Tom Hancock, "China Hastens Drug Approval with Embrace of Foreign Data," *Financial Times*, October 9, 2017. <https://www.ft.com/content/a7e73928-acd8-11e7-aab9-abaa44b1e130>.
- ⁹⁶ Tom Hancock, "China Hastens Drug Approval with Embrace of Foreign Data," *Financial Times*, October 9, 2017. <https://www.ft.com/content/a7e73928-acd8-11e7-aab9-abaa44b1e130>.
- ⁹⁷ Tom Hancock, "China Hastens Drug Approval with Embrace of Foreign Data," *Financial Times*, October 9, 2017. <https://www.ft.com/content/a7e73928-acd8-11e7-aab9-abaa44b1e130>.
- ⁹⁸ Tom Hancock, "China Hastens Drug Approval with Embrace of Foreign Data," *Financial Times*, October 9, 2017. <https://www.ft.com/content/a7e73928-acd8-11e7-aab9-abaa44b1e130>.
- ⁹⁹ Christina Zhang, "China Issues New Policy for Drug and Medical Device Approvals," *Cooley*, October 18, 2017. <https://www.cooley.com/news/insight/2017/2017-10-18-china-issues-new-policy-for-drug-and-medical-device-approvals>.
- ¹⁰⁰ Christina Zhang, "China Issues New Policy for Drug and Medical Device Approvals," *Cooley*, October 18, 2017. <https://www.cooley.com/news/insight/2017/2017-10-18-china-issues-new-policy-for-drug-and-medical-device-approvals>.
- ¹⁰¹ Reuters, "China Drug Approval Backlog Jumped by a Third Last Year," March 13, 2015. <http://www.reuters.com/article/us-china-pharmaceuticals/china-drug-approval-backlog-jumped-by-a-third-last-year-idUSKBN0M90QP20150313>; Zachary Brennan, "China Works to Reduce Massive Backlog of Clinical Trial and Marketing Applications," *Regulatory Affairs Professionals Society*, February 15, 2017. <http://www.raps.org/Regulatory-Focus/News/2017/02/15/26843/China-Works-to-Reduce-Massive-Backlog-of-Clinical-Trial-and-Marketing-Applications/>.
- ¹⁰² U.S. Department of Commerce, *Fact Sheet: 25th U.S.-China Joint Commission on Commerce and Trade*, December 19, 2014. <https://www.commerce.gov/news/fact-sheets/2014/12/fact-sheet-25th-us-china-joint-commission-commerce-and-trade>.
- ¹⁰³ Brian Spegele, "China Greenlights Imports of Two New GMO Products," *Wall Street Journal*, June 14, 2017. <https://www.wsj.com/articles/china-greenlightsimports-of-two-new-gmo-products-1497444846?mg=prod/accounts-wsj>.
- ¹⁰⁴ Tom Hancock, "China Slashes Prices of Patented Western Drugs by up to 70%," *Financial Times*, July 19, 2017. <https://www.ft.com/content/ef1566be-6c7b-11e7-bfeb-33fe0c5b7eaa>.
- ¹⁰⁵ Tom Hancock, "China Slashes Prices of Patented Western Drugs by up to 70%," *Financial Times*, July 19, 2017. <https://www.ft.com/content/ef1566be-6c7b-11e7-bfeb-33fe0c5b7eaa>.
- ¹⁰⁶ Hui Li, "China Biotech Promise Struggles to Keep Foreign Innovators," *Bloomberg*, October 19, 2017. <https://www.bloomberg.com/news/articles/2017-10-19/china-s-biotech-promise-is-struggling-to-keep-foreign-innovators>.
- ¹⁰⁷ Hui Li, "China Biotech Promise Struggles to Keep Foreign Innovators," *Bloomberg*, October 19, 2017. <https://www.bloomberg.com/news/articles/2017-10-19/china-s-biotech-promise-is-struggling-to-keep-foreign-innovators>.
- ¹⁰⁸ Hui Li, "China Biotech Promise Struggles to Keep Foreign Innovators," *Bloomberg*, October 19, 2017. <https://www.bloomberg.com/news/articles/2017-10-19/china-s-biotech-promise-is-struggling-to-keep-foreign-innovators>.
- ¹⁰⁹ China's National Bureau of Statistics via CEIC database.
- ¹¹⁰ Lingling Wei, "China Leans on Old Habits to Reach 6.8% Growth for the Third Quarter," *Wall Street Journal*, October 19, 2017. <https://www.wsj.com/articles/china-leans-on-old-time-drivers-to-reach-6-8-growth-in-third-quarter-1508380402>.
- ¹¹¹ China's National Bureau of Statistics via CEIC database.
- ¹¹² Gabriel Wildau and Tom Mitchell, "China's Economy Grows 6.8% in Third Quarter," *Financial Times*, October 19, 2017. <https://www.ft.com/content/bf338e78-b3e1-11e7-a398-73d59db9e399>.
- ¹¹³ Tom Hancock and Gabriel Wildau, "Chinese Property Boom Props up Xi's Hopes for the Economy," *Financial Times*, October 19, 2017. <https://www.ft.com/content/0aa534f4-acdc-11e7-aab9-abaa44b1e130>.
- ¹¹⁴ Caixin, "Caixin China General Manufacturing PMI," September 30, 2017. <https://www.markiteconomics.com/Survey/PressRelease.mvc/81d42f21a68e46b89167a62d7a2a380d>.
- ¹¹⁵ Caixin, "Caixin China General Manufacturing PMI," September 30, 2017. <https://www.markiteconomics.com/Survey/PressRelease.mvc/81d42f21a68e46b89167a62d7a2a380d>.
- ¹¹⁶ Tom Hancock and Gabriel Wildau, "Chinese Property Boom Props up Xi's Hopes for the Economy," *Financial Times*, October 19, 2017. <https://www.ft.com/content/0aa534f4-acdc-11e7-aab9-abaa44b1e130>.
- ¹¹⁷ Tom Hancock and Gabriel Wildau, "Chinese Property Boom Props up Xi's Hopes for the Economy," *Financial Times*, October 19, 2017. <https://www.ft.com/content/0aa534f4-acdc-11e7-aab9-abaa44b1e130>.
- ¹¹⁸ Xi Jinping, "Report Delivered at the 19th CPC National Congress," October 18, 2017. Translation.
- ¹¹⁹ China's National Bureau of Statistics via CEIC database.
- ¹²⁰ Lingling Wei, "China Leans on Old Habits to Reach 6.8% Growth for the Third Quarter," *Wall Street Journal*, October 19, 2017. <https://www.wsj.com/articles/china-leans-on-old-time-drivers-to-reach-6-8-growth-in-third-quarter-1508380402>.
- ¹²¹ Xi Jinping, "Report Delivered at the 19th CPC National Congress," October 18, 2017. Translation.
- ¹²² Lingling Wei, "China's Bright Economic Future Is Bound up in the Past," *Wall Street Journal*, October 19, 2017. <https://www.wsj.com/articles/chinas-bright-economic-future-is-bound-up-in-the-past-1508416787>.
- ¹²³ Bloomberg, "Xi Skips Old Growth Pledge as China Seeks Quality, Not Quantity," October 18, 2017. <https://www.bloomberg.com/news/articles/2017-10-18/xi-skips-old-growth-pledge-as-china-seeks-quality-not-quantity>.
- ¹²⁴ U.S.-China Economic and Security Review Commission, *Hearing on China's 13th Five-Year Plan*, written testimony of Crystal Chang, April 27, 2016. http://www.uscc.gov/sites/default/files/Crystal%20Chang_Written%20Testimony%20042716.pdf.
- ¹²⁵ State Council of the People's Republic of China, *Made in China 2025*, May 8, 2015. Translation. http://www.gov.cn/zhengce/content/2015-05/19/content_9784.htm.
- ¹²⁶ Joe McDonald, "China's Electric Vehicle Industry Shaken by Scandal," *Phys.org*, September 13, 2016. <https://phys.org/news/2016-09-china-electric-vehicle-industry-shaken.html>.
- ¹²⁷ Li Fusheng, "New Energy Vehicles - A Case of Too Many, Too Soon?" *China Daily*, October 30, 2017. http://www.chinadaily.com.cn/business/motoring/2017-10/30/content_33881278.htm.

- ¹²⁸ Xinhua, “China to Build 12,000 NEV Chargers by 2020,” *State Council of the People’s Republic of China*, October 13, 2015. http://english.gov.cn/news/top_news/2015/10/13/content_281475210562536.htm.
- ¹²⁹ Charles Clover, “Subsidies Help China Sell the Most Electric Cars,” *Financial Times*, October 24, 2017. <https://www.ft.com/content/18afe28e-a1d2-11e7-8d56-98a09be71849>.
- ¹³⁰ International Energy Agency, *Global EV Outlook: Two Million and Counting*, June 2017, 18. <https://www.iea.org/publications/freepublications/publication/GlobalEVO Outlook2017.pdf>.
- ¹³¹ Vivien Diniz, “China Aims for 30 Percent of State Cars to Use Alternative Energy,” *Investing News*, July 14, 2014. <https://investingnews.com/daily/resource-investing/energy-investing/lithium-investing/china-aims-for-30-percent-of-state-cars-to-use-alternative-energy/>.
- ¹³² Tai Ming Cheung et al., “Planning for Innovation: Understanding China’s Plans for Technological, Energy, Industrial, and Defense Development,” *University of California Institute on Global Conflict and Cooperation* (prepared for the U.S.-China Economic and Security Review Commission), July 28, 2016, 235. <https://www.uscc.gov/sites/default/files/Research/Planning%20for%20Innovation-Understanding%20China%27s%20Plans%20for%20Tech%20Energy%20Industrial%20and%20Defense%20Development072816.pdf>.
- ¹³³ JSC (Shanghai) Automotive Consulting Co., Ltd., “China New Energy Vehicle Report,” July 2017. http://jscautomotive.com/reports/July2017_JSC_China_NEV_Report_Sample.pdf.
- ¹³⁴ Dezan Shira and Associates, “Shifting Gears: Investing in China’s Electric Vehicles Market,” *China Briefing*, May 11, 2016. <http://www.china-briefing.com/news/2016/05/11/china-shifts-gears-electric-vehicles.html>.
- ¹³⁵ Charles Clover, “Subsidies Help China Sell the Most Electric Cars,” *Financial Times*, October 24, 2017. <https://www.ft.com/content/18afe28e-a1d2-11e7-8d56-98a09be71849>; Reuters, “Fitch: China New Energy Vehicle Sales to Rise Rapidly Despite Reduced Subsidies,” July 16, 2017. <https://www.reuters.com/article/fitch-china-new-energy-vehicle-sales-to-rise-rapidly-despite-reduced-subsidies-idUSFt998143>.
- ¹³⁶ Jost Wubbeke et al., “Made in China 2025: The Making of a High-Tech Superpower and Consequences for Industrial Countries,” *Mercator Institute for China Studies*, December 2016, 20–21, 61–63. https://www.merics.org/fileadmin/user_upload/downloads/MPOC/MPOC_Made_in_China_2025/MPOC_No.2_MadeinChina_2025.pdf.
- ¹³⁷ Chinese Academy of Engineering, Expert Commission for the Construction of a Manufacturing Superpower, *Made in China 2025 Key Area Technology Roadmap*, October 29, 2015. Translation, 105. <http://www.cae.cn/cae/html/files/2015-10/29/20151029105822561730637.pdf>; U.S.-China Business Council, “Unofficial USCBC Chart of Localization Targets by Sector Set in the MIIT Made in China 2025 Key Technology Roadmap,” February 2, 2016; U.S.-China Business Council, “Unofficial USCBC Chart of Localization Targets by Sector Set in the MIIT Made in China 2025 Key Technology Roadmap,” February 2, 2016. <https://www.uschina.org/sites/default/files/2-2-16%20Sector%20and%20Localization%20Targets%20for%20Made%20in%20China%202025.pdf>; U.S. Chamber of Commerce, *Made in China 2025: Global Ambitions Built on Local Protectionism*, March 16, 2017, 65–80. https://www.uschamber.com/sites/default/files/final_made_in_china_2025_report_full.pdf.
- ¹³⁸ Chinese Academy of Engineering, Expert Commission for the Construction of a Manufacturing Superpower, *Made in China 2025 Key Area Technology Roadmap*, October 29, 2015, 101. Translation. <http://www.cae.cn/cae/html/files/2015-10/29/20151029105822561730637.pdf>.
- ¹³⁹ Jost Wubbeke et al., “Made in China 2025: The Making of a High-Tech Superpower and Consequences for Industrial Countries,” *Mercator Institute for China Studies*, December 2016, 20–21. https://www.merics.org/fileadmin/user_upload/downloads/MPOC/MPOC_Made_in_China_2025/MPOC_No.2_MadeinChina_2025.pdf.
- ¹⁴⁰ Green Car Congress, “China Issues NEV Quotas for Automakers: 10% of Sales in 2019 and 12% in 2020,” September 29, 2017. <http://www.greencarcongress.com/2017/09/20170929-china.html#more>; U.S.-China Economic and Security Review Commission, *Hearing on China’s 13th Five-Year Plan*, written testimony of Crystal Chang, April 27, 2016. http://www.uscc.gov/sites/default/files/Crystal%20Chang_Written%20Testimony%20042716.pdf.
- ¹⁴¹ Green Car Congress, “China Issues NEV Quotas for Automakers: 10% of Sales in 2019 and 12% in 2020,” September 29, 2017. <http://www.greencarcongress.com/2017/09/20170929-china.html#more>.
- ¹⁴² Green Car Congress, “China Issues NEV Quotas for Automakers: 10% of Sales in 2019 and 12% in 2020,” September 29, 2017. <http://www.greencarcongress.com/2017/09/20170929-china.html#more>; Ma Si and Cheng Yu, “Rules Set New Targets for NEVs,” *State Council of the People’s Republic of China*, September 29, 2017. http://english.gov.cn/state_council/ministries/2017/09/29/content_281475892901486.htm.
- ¹⁴³ Marika Heller, “Chinese Government Support for New Energy Vehicles as a Trade Battleground,” *National Bureau of Asian Research*, September 2017, 7–8.
- ¹⁴⁴ Green Car Congress, “GM to Introduce at Least 10 New New Energy Vehicles in China from 2016–2020; Focus on Autonomy, Connectivity and Sharing,” September 16, 2017. <http://www.greencarcongress.com/2017/09/20170916-barra.html>.
- ¹⁴⁵ Darrell Etherington, “Volkswagen to Offer Electric Versions of All of its Vehicles by 2030,” *TechCrunch*, September 11, 2017. <https://techcrunch.com/2017/09/11/volkswagen-to-offer-electric-versions-of-all-of-its-vehicles-by-2030/>.
- ¹⁴⁶ Darrell Etherington, “Volkswagen to Offer Electric Versions of All of its Vehicles by 2030,” *TechCrunch*, September 11, 2017. <https://techcrunch.com/2017/09/11/volkswagen-to-offer-electric-versions-of-all-of-its-vehicles-by-2030/>.
- ¹⁴⁷ Josh Horwitz, “Tesla Is Shifting Gears in China by Manufacturing its Own Cars There,” *Quartz*, June 23, 2017. <https://qz.com/1012903/tesla-tsla-is-shifting-gears-in-china-by-manufacturing-its-its-own-cars-there/>.
- ¹⁴⁸ Josh Horwitz, “Tesla Is Shifting Gears in China by Manufacturing its Own Cars There,” *Quartz*, June 23, 2017. <https://qz.com/1012903/tesla-tsla-is-shifting-gears-in-china-by-manufacturing-its-its-own-cars-there/>.
- ¹⁴⁹ An Limin, Zheng Lichun, and Mo Yelin, “China May Ease Ownership Rules for Electric Vehicle Makers,” *Caixin*, October 27, 2017. <https://www.caixinglobal.com/2017-10-27/101162176.html>; Marika Heller, “Chinese Government Support for New Energy Vehicles as a Trade Battleground,” *National Bureau of Asian Research*, September 2017, 4.

- ¹⁵⁰ Tim Higgins, Trefor Moss, and Eva Dou, “Tesla Strikes Deal with Shanghai to Build Factory in China,” *Wall Street Journal*, October 22, 2017. <https://www.wsj.com/articles/tesla-strikes-deal-with-shanghai-to-build-factory-in-china-1508670181>; Yu Nakamura, Kazuyui Okudaira, and Ken Moriyasu, “China Goes All out to be King of the Electric Car,” *Nikkei Asian Review*, October 11, 2017. <https://asia.nikkei.com/Features/Cover-story/China-goes-all-out-to-be-king-of-the-electric-car>.
- ¹⁵¹ U.S.-China Economic and Security Review Commission, *Hearing on China’s 13th Five-Year Plan*, written testimony of Crystal Chang, April 27, 2016. http://www.uscc.gov/sites/default/files/Crystal%20Chang_Written%20Testimony%20042716.pdf; Marika Heller, “Chinese Government Support for New Energy Vehicles as a Trade Battleground,” *National Bureau of Asian Research*, September 2017, 4.
- ¹⁵² U.S.-China Economic and Security Review Commission, *Hearing on China’s 13th Five-Year Plan*, written testimony of Crystal Chang, April 27, 2016, 2–3. http://www.uscc.gov/sites/default/files/Crystal%20Chang_Written%20Testimony%20042716.pdf.
- ¹⁵³ U.S.-China Economic and Security Review Commission, *Hearing on China’s 13th Five-Year Plan*, written testimony of Crystal Chang, April 27, 2016. http://www.uscc.gov/sites/default/files/Crystal%20Chang_Written%20Testimony%20042716.pdf; Marika Heller, “Chinese Government Support for New Energy Vehicles as a Trade Battleground,” *National Bureau of Asian Research*, September 2017, 4.
- ¹⁵⁴ Marika Heller, “Chinese Government Support for New Energy Vehicles as a Trade Battleground,” *National Bureau of Asian Research*, September 2017, 4; U.S. Chamber of Commerce, *Made in China 2025: Global Ambitions Built on Local Protectionism*, March 16, 2017. https://www.uschamber.com/sites/default/files/final_made_in_china_2025_report_full.pdf.
- ¹⁵⁵ Ministry of Industry and Information Technology, *Provisions on the Management of New Energy Automobile Production Enterprise and Products*, January 16, 2017. <http://www.miit.gov.cn/n1146295/n1146557/n1146624/c5462995/content.html>; Marika Heller, “Chinese Government Support for New Energy Vehicles as a Trade Battleground,” *National Bureau of Asian Research*, September 2017, 4; U.S. Chamber of Commerce, *Made in China 2025: Global Ambitions Built on Local Protectionism*, March 16, 2017, 27. https://www.uschamber.com/sites/default/files/final_made_in_china_2025_report_full.pdf.
- ¹⁵⁶ European Chamber of Commerce, *China Manufacturing 2025: Putting Industrial Policy Ahead of Market Forces*, March 7, 2017, 39–40. http://docs.dpaq.de/12007-european_chamber_cm2025-en.pdf.
- ¹⁵⁷ An Limin, Zheng Lichun, and Mo Yelin, “China May Ease Ownership Rules for Electric Vehicle Makers,” *Caixin*, October 27, 2017. <https://www.caixinglobal.com/2017-10-27/101162176.html>.
- ¹⁵⁸ Alexander Chipman Koty and Zhou Qian, “China’s 2017 Foreign Investment Catalogue Opens Access to New Industries,” *China Briefing*, July 11, 2017. <http://www.china-briefing.com/news/2017/07/11/china-releases-2017-foreign-investment-catalogue-opening-access-new-industries.html>; Ministry of Commerce, Investment Promotion Agency, “Catalogue of Industries for Guiding Foreign Investment (Revision 2017),” June 28, 2017. http://www.fdi.gov.cn/1800000121_39_4851_0_7.html.
- ¹⁵⁹ Trefor Moss, “China’s Road to Electric-Car Domination Is Driven in Part by Batteries,” *Wall Street Journal*, October 21, 2017. <https://www.wsj.com/articles/chinas-road-to-electric-car-domination-is-driven-in-part-by-batteries-1508587203>.
- ¹⁶⁰ Trefor Moss, “China’s Road to Electric-Car Domination Is Driven in Part by Batteries,” *Wall Street Journal*, October 21, 2017. <https://www.wsj.com/articles/chinas-road-to-electric-car-domination-is-driven-in-part-by-batteries-1508587203>.
- ¹⁶¹ Tim Higgins, “Tesla Reveals Time Frame for China Factory,” *Wall Street Journal*, November 2, 2017. <https://www.wsj.com/articles/tesla-reveals-time-frame-for-china-factory-1509599003>.
- ¹⁶² Tim Higgins, Trefor Moss, and Eva Dou, “Tesla Strikes Deal with Shanghai to Build Factory in China,” *Wall Street Journal*, October 22, 2017. <https://www.wsj.com/articles/tesla-strikes-deal-with-shanghai-to-build-factory-in-china-1508670181>.
- ¹⁶³ Patrick Hertzke, Nicolai Muller, and Stephanie Schenk, “Dynamics in the Global Electric-Vehicle Market,” *McKinsey and Company*, July 2017. <https://www.mckinsey.com/industries/automotive-and-assembly/our-insights/dynamics-in-the-global-electric-vehicle-market>.
- ¹⁶⁴ Reuters, “Fitch: China New Energy Vehicle Sales to Rise Rapidly Despite Reduced Subsidies,” July 16, 2017. <https://www.reuters.com/article/fitch-china-new-energy-vehicle-sales-to/fitch-china-new-energy-vehicle-sales-to-rise-rapidly-despite-reduced-subsidies-idUSFit998143>.
- ¹⁶⁵ Reuters, “Fitch: China New Energy Vehicle Sales to Rise Rapidly Despite Reduced Subsidies,” July 16, 2017. <https://www.reuters.com/article/fitch-china-new-energy-vehicle-sales-to/fitch-china-new-energy-vehicle-sales-to-rise-rapidly-despite-reduced-subsidies-idUSFit998143>.
- ¹⁶⁶ AFP, “BMW Third-Largest Electric Car Manufacturer,” *DW*, March 24, 2017. <http://www.dw.com/en/bmw-third-largest-electric-car-manufacturer/a-38107145>.
- ¹⁶⁷ EV Volumes, “Global Plug-in Sales for 2016.” <http://www.ev-volumes.com/news/global-plug-in-sales-for-2016/>.
- ¹⁶⁸ EV Volumes, “Global Plug-in Sales for 2016.” <http://www.ev-volumes.com/news/global-plug-in-sales-for-2016/>.
- ¹⁶⁹ EV Volumes, “Global Plug-in Sales for 2016.” <http://www.ev-volumes.com/news/global-plug-in-sales-for-2016/>.
- ¹⁷⁰ Li Fusheng, “New Energy Vehicles - A Case of Too Many, Too Soon?” *China Daily*, October 30, 2017. http://www.chinadaily.com.cn/business/motoring/2017-10/30/content_33881278.htm.
- ¹⁷¹ Katie Fehrenbacher, “Electric Cars in China Are on Track for a Record Year,” *Greentech Media*, October 20, 2017. <https://www.greentechmedia.com/articles/read/electric-cars-in-china-are-on-track-for-a-record-year#gs.6om1a8Y>.
- ¹⁷² Hongyang Cui, “Subsidy Fraud Leads to Reforms for China’s EV Market,” *International Council on Clean Transportation*, May 30, 2017. <http://www.theicct.org/blogs/staff/subsidy-fraud-reforms-china-ev-market>.
- ¹⁷³ Hongyang Cui, “Subsidy Fraud Leads to Reforms for China’s EV Market,” *International Council on Clean Transportation*, May 30, 2017. <http://www.theicct.org/blogs/staff/subsidy-fraud-reforms-china-ev-market>; An Limin and Coco Feng, “China Pulls Plug on Electric Vehicle Fraud,” *Caixin*, February 6, 2017. <https://www.caixinglobal.com/2017-02-06/101050629.html>.
- ¹⁷⁴ Joe McDonald, “China’s Electric Vehicle Industry Shaken by Scandal,” *Phys.org*, September 13, 2016. <https://phys.org/news/2016-09-china-electric-vehicle-industry-shaken.html>.
- ¹⁷⁵ Li Fusheng, “New Energy Vehicles - A Case of Too Many, Too Soon?” *China Daily*, October 30, 2017. http://www.chinadaily.com.cn/business/motoring/2017-10/30/content_33881278.htm.

-
- ¹⁷⁶ Li Fusheng, “E-Car Overcapacity Looms Large,” *China Daily*, December 26, 2017. http://usa.chinadaily.com.cn/business/2016-12/26/content_27778967.htm.
- ¹⁷⁷ Zheng Lichun and Song Shiqing, “Overcapacity Saps Electric-Car Battery-Makers,” *Caixin*, June 22, 2017. <https://www.caixinglobal.com/2017-06-23/101104607.html>.
- ¹⁷⁸ Hongyang Cui, “Subsidy Fraud Leads to Reforms for China’s EV Market,” *International Council on Clean Transportation*, May 30, 2017. <http://www.theicct.org/blogs/staff/subsidy-fraud-reforms-china-ev-market>.
- ¹⁷⁹ Zheng Lichun and Song Shiqing, “Overcapacity Saps Electric-Car Battery-Makers,” *Caixin*, June 22, 2017. <https://www.caixinglobal.com/2017-06-23/101104607.html>.
- ¹⁸⁰ Zheng Lichun and Song Shiqing, “Overcapacity Saps Electric-Car Battery-Makers,” *Caixin*, June 22, 2017. <https://www.caixinglobal.com/2017-06-23/101104607.html>.
- ¹⁸¹ Zheng Lichun and Song Shiqing, “Overcapacity Saps Electric-Car Battery-Makers,” *Caixin*, June 22, 2017. <https://www.caixinglobal.com/2017-06-23/101104607.html>.
- ¹⁸² Dezan Shira and Associates, “Shifting Gears: Investing in China’s Electric Vehicles Market,” *China Briefing*, May 11, 2016. <http://www.china-briefing.com/news/2016/05/11/china-shifts-gears-electric-vehicles.html>.
- ¹⁸³ Marika Heller, “Chinese Government Support for New Energy Vehicles as a Trade Battleground,” *National Bureau of Asian Research*, September 2017, 7–8.