U.S.-China Economic and Security Review Commission

Monthly Analysis of U.S.-China Trade Data

December 4, 2015

Highlights of this Month's Edition

- **Bilateral trade:** October U.S. goods trade deficit with China at $33 billion, the smallest deficit in seven months.
- **Bilateral policy issues:** RMB added to the SDR basket; a U.S.-China agreement on joint inspections of accounting firms falls through, placing U.S. regulators in violation of their mandate.
- **Policy trends in China's economy:** Chinese e-commerce soars as Singles' Day eclipses Black Friday and Cyber Monday in online sales.
- **Sector spotlight – Traditional Chinese medicine:** Internationalization and modernization key for increasing quality and regulatory acceptance and boosting exports to Western market.

Bilateral Goods Trade

U.S. Goods Deficit Down on Increased Exports

The U.S. trade deficit in goods with China registered $33 billion in October, the smallest monthly deficit since April 2015 and a decrease of 9.1 percent from September 2015. The decline was due primarily to a marked increase in U.S. exports to China, which grew 20.8 percent month-on-month to $11.4 billion. U.S. imports from China declined 2.9 percent from September 2015 to $44.4 billion (see Table 1).

Year-on-year, however, the deficit rose to $306.5 billion in the first ten months of 2015, a 7.8 percent increase from the same period in 2014. In the first 10 months of 2015, exports decreased by 10.3 percent year-on-year while imports decreased by 2 percent year-on-year.

Table 1: U.S. Goods Trade with China, January–October 2015

(US$ billions)

	Jan	Feb	Mar	Apr	May	Jun	July	Aug	Sept	Oct
Exports	9.6	8.7	9.9	9.3	8.8	9.7	9.5	9.2	9.4	11.4
Imports	38.2	31.2	41.1	35.8	39.2	41.1	41.1	44.1	45.7	44.4
Balance	(28.6)	(22.5)	(31.2)	(26.5)	(30.5)	(31.5)	(31.6)	(34.9)	(36.3)	(33.0)
Balance YTD										
2014	(27.8)	(48.7)	(69.1)	(96.4)	(125.2)	(155.2)	(186.1)	(216.3)	(251.8)	(284.4)
2015	(28.6)	(51.1)	(82.4)	(108.9)	(139.3)	(170.8)	(202.3)	(237.3)	(273.6)	(306.5)

Source: U.S. Census Bureau, NAICS database (Washington, DC: U.S. Department of Commerce, Foreign Trade Division, December 2015). http://www.census.gov/foreign-trade/balance/c5700.html.

Bilateral Policy Issues

IMF Includes China's Currency in the SDR Basket

On November 30, the Executive Board of the International Monetary Fund (IMF) decided that China's currency, the renminbi (RMB), "met all existing criteria and, effective October 1, 2016 the RMB is determined to be a freely usable currency," and will be included in the basket of the IMF's international reserve asset, the Special Drawing Rights (SDR).[1] In a report published in August this year, IMF staff found the RMB did not yet meet the requirements of being "fully usable," a key criterion for inclusion in the SDR basket defined as being "widely used" for international transactions and "widely traded" in the principal foreign exchange markets. Since that report, however, the Chinese government has taken steps to address some of the shortcomings pointed out by the IMF, including changing the mechanism for setting the RMB's exchange rate,[*] leading the IMF staff to conclude that the RMB now meets the requirements.

Christine Lagarde, Managing Director of the IMF, said RMB's inclusion in the SDR basket was "a recognition of the progress that the Chinese authorities have made in the past years in reforming China's monetary and financial systems."[2] Following the announcement, the People's Bank of China, China's central bank, pledged China "will speed up the effort to promote financial reforms and opening."[3] Eswar Prasad, former head of IMF's China Division and now professor at Cornell University, said that while the decision will encourage China's reformers, "Domestic opposition to further financial-sector reforms and market-oriented liberalization measures remains fierce, and this decision by itself is unlikely to shift the balance substantially." [4]

The addition of the RMB to the SDR basket—which already comprises the U.S. dollar, euro, pound, and yen—not only acknowledges the international importance China plays in the world economy, but also validates China's interventionist approach to economic policy and exchange rate management, which led some observers to criticize the IMF's decision as premature. China continues to tightly manage the value of its currency and control the flow of capital in and out of the country. Edwin M. Truman, nonresident senior fellow at the Peterson Institute for International Economics, noted that changes introduced by the Chinese government in response to the August IMF report are too new and "have no established track record," and called the RMB's inclusion a "political trophy" granted to the Chinese government by the IMF.[5]

Aside from earning China economic prestige, the immediate impact of the RMB's inclusion in the SDR basket will be limited. In the longer term, central banks will increase their holdings of the RMB, and investors will be encouraged to hold RMB-denominated assets. Standard Chartered estimates the RMB's new status as a reserve asset will lead to a 1 percent shift (about $1 trillion) of global reserves into RMB-denominated assets over the next five years.[†] Use of the RMB for trade settlement is still small but has been growing steadily: according to SWIFT, a global provider of financial messaging, in September 2015 the RMB was the fifth most used currency, accounting for 2.45 percent of all international payments.[‡] The big test for RMB's inclusion is whether the Chinese government maintains its commitment to liberalization as China's economic slowdown deepens.

[*] For more on this year's developments in China's currency policy and foreign exchange reserves management, including China's efforts promote the RMB for inclusion as a reserve currency in the SDR basket, and the change in RMB exchange rate mechanism, see U.S.-China Economic and Security Review Commission, *2015 Annual Report to Congress*, November 2015, 50–52. *http://origin.www.uscc.gov/sites/default/files/Annual_Report/Chapters/Chapter%201%2C%20Section%201%20-%20Year%20in%20Review%2C%20Economics%20and%20Trade.pdf*.

[†] If the Standard Chartered estimates are correct, the RMB would account for 9 percent of global central bank foreign exchange holdings, versus 65 percent for the U.S. dollar. Ian Talley and Lingling Wei, "IMF Move to Give Yuan Reserve Status Likely to Boost China Assets," *Wall Street Journal*, November 15, 2015. *http://www.wsj.com/articles/imf-move-to-give-yuan-reserve-status-likely-to-boost-china-assets-1447608676?alg=y*.

[‡] The U.S. dollar leads SWIFT rankings with 43.3 percent, followed by the euro (28.6 percent), pound (9 percent), and yen (2.9 percent). SWIFT, "RMB Falls Back to Position #5 as an International Payments Currency," October 29, 2015. *https://www.swift.com/about_swift/shownews?param_dcr=news.data/en/swift_com/2015/PR_RMB.xml*.

U.S. and Chinese Regulatory Impasse on Joint Auditing Inspections Continues

Over the last decade, the Public Company Accounting Oversight Board (PCAOB),* an independent regulator of accounting firms that audit U.S.-listed firms, has been negotiating with the China Securities Regulatory Commission (CSRC) and Ministry of Finance (MOF) to be able to conduct joint inspections of accounting firms located in China.[6] Under the Sarbanes-Oxley Act of 2002, the PCAOB is required to conduct regular inspections† of all registered U.S. and non-U.S. public accounting firms that audit firms listed on U.S. stock exchanges.[7] These inspections seek to protect investors in U.S. capital markets by ensuring that all public accounting firms are adhering to U.S. auditing standards.[8] However, Chinese regulators view such inspections by a foreign regulator enforcing foreign laws in China as a violation of national sovereignty. In addition, granting inspectors access to audit paperwork—required under U.S. law—may violate China's State Secrets Law.‡ This law provides a very broad and vague definition of state secrets and restricts the transfer of information related to those state secrets.[9] Thus unable to conduct these inspections, the PCAOB is violation of its mandate.[10]

The PCAOB and Chinese regulators have been negotiating to resolve this regulatory impasse. In June 2015, a PCAOB spokesperson announced that Chinese regulators and the PCAOB agreed to begin an inspection pilot program this year, with a final agreement very close to completion.[11] But in October, media sources reported the expected final agreement fell through after the Chinese government narrowed the terms of the inspections to the point of rendering them ineffective.[12] At the Standing Advisory Group Meeting on November 12, 2015, PCAOB Chairman James Doty cited continued misunderstandings regarding the scope of their inspections and the addition of new Chinese bureaucratic interests as factors complicating efforts to close negotiations.[13] He stated that the PCAOB will continue to negotiate for access.[14]

The PCAOB faces a difficult road ahead. According to Paul Gillis, professor at Peking University's Guanghua School of Management, Chinese regulators are fine with the status quo, so a restart to negotiations is unlikely anytime soon.[15] However, the PCAOB is required by U.S. law to conduct inspections of China-based accounting firms.[16] The PCAOB could deregister all China-based accounting firms for noncompliance.[17] Because all U.S.-listed firms are required to use a PCAOB-registered auditor and submit financial statements audited by a PCAOB-registered auditor to the U.S. Securities and Exchange Commission, deregistering all China-based accounting firms could ultimately force Chinese companies such as Alibaba and Baidu to delist from the U.S. stock exchanges.[18] Joseph V. Carcellos, professor of accounting and information management at the University of Tennessee and member of the PCAOB's Investor Advisory Group, explained, "There is no obvious solution that doesn't have serious side effects."[19]

"Without having the PCAOB involved in doing those evaluations, the quality and reliability of audits in China will continue to be a black box to U.S. investors," warned Jason Flemmons, senior managing director at FTI Consulting Inc. and former deputy chief accountant for enforcement at the U.S. Securities and Exchange Commission.[20] Nemit Shroff, associate professor of accounting at Massachusetts Institute Technology's Sloan School of Management, found PCAOB inspections of auditors increased the credibility of both the auditors and the financial statements for firms audited by those PCAOB-inspected auditors.[21] Furthermore, when the PCAOB releases its inspection reports, these audited non-U.S. firms increase their long-term debt by 11.5 percent and investment by 10.9 percent, thus improving their access to additional financing and investment.[22] In 2015, the PCAOB expects to audit 220 firms, including 60 non-U.S. firms in 25 jurisdictions.[23]

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* In response to the Enron accounting scandal, the Sarbanes-Oxley Act of 2002 created the PCAOB to oversee all accounting firms that audit public companies listed on U.S. stock exchanges. Although the PCAOB is a private-sector, nonprofit corporation, the U.S. Securities and Exchange Commission approves its budget and rules, appoints board members, and approves rules drafted by the PCAOB. Sarbanes-Oxley Act of 2002 § Pub. L. No. 107-204, 116 STAT. 745 (July 30, 2002), codified at 15 U.S.C. § 7201 (2002).

† The PCAOB conducts annual inspections for auditors with more than 100 listed companies, and conducts at least triennial inspections for auditors with 100 or fewer listed companies. Public Company Accounting Oversight Board, "Inspected Firms." *http://pcaobus.org/Inspections/Pages/InspectedFirms.aspx*.

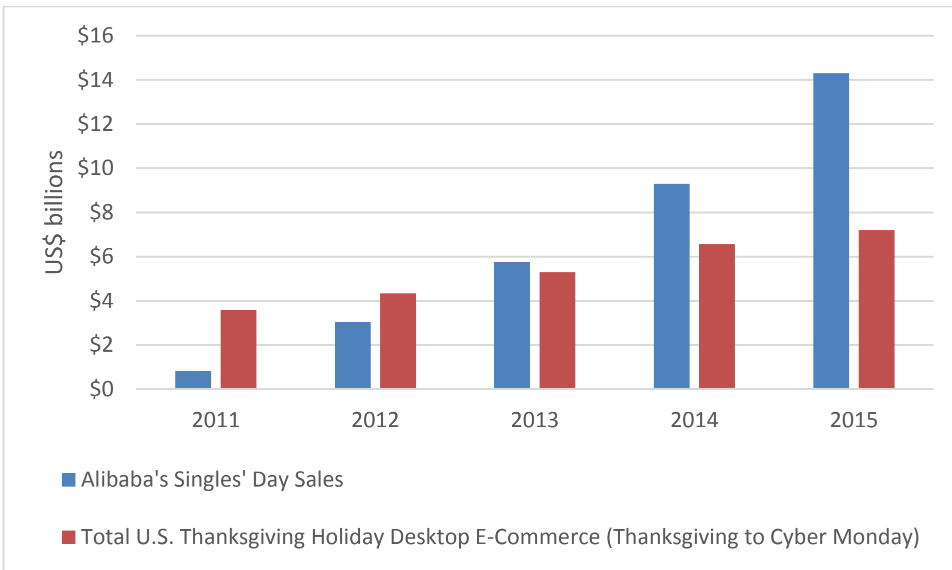
‡ For more information on China-based auditing firms' complex compliance dilemma, see Kevin Rosier, "China's Great Legal Firewall: Extraterritoriality of Chinese Firms in the United States," *U.S.-China Economic and Securities Review Commission,* May 5, 2015, 9–10. *http://origin.www.uscc.gov/sites/default/files/Research/Extraterritoriality%20of%20Chinese%20Firms_Research%20Report_0.pdf*.

Policy Trends in China's Economy

Singles' Day Exceeds Black Friday in Retail Sales, Seeks Global Market

In a 24-hour event that combined theater and e-commerce, Alibaba reportedly grossed $14.3 billion in online sales on November 11 through Singles' Day promotions—almost five times the total online sales from Cyber Monday this year, the most successful Cyber Monday on record.[24] Singles' Day, an annual Chinese online shopping event that offers discounts on a variety of products from baby formula to electronics, originated as a holiday for Chinese citizens without partners, but since 2008 has been promoted by Alibaba as an opportunity for singles to treat themselves with discounted online purchases. It has since become the premier online shopping festival in China, with JD.com and other online vendors joining Alibaba in promoting e-commerce. This year Alibaba added a touch of star power by employing Western celebrities such as Kevin Spacey and Daniel Craig to promote the holiday.[25] Singles' Day has rapidly risen to become the largest online one-day shopping event worldwide. As Figure 1 shows, from 2011 to 2015 Alibaba's Singles' Day sales have increased more than 17 times, from less than $1 billion to more than $14 billion.

Figure 1: U.S. Thanksgiving Holiday E-Commerce and Alibaba Singles' Day Sales, 2011–2015



Source: Alibabagroup.com, "Alibaba Group Generated USD 14.3 Billion of GMV on 2015 11.11 Global Shopping Festival," November 12, 2015. *http://www.alibabagroup.com/en/news/article?news=p151112*; Comscore.com, "Cyber Monday Surpasses $3 Billion in Total Digital Sales to Rank as Heaviest U.S. Online Spending Day in History, December 2, 2015. *http://www.comscore.com/Insights/Press-Releases/2015/12/Cyber-Monday-Surpasses-3-Billion-in-Total-Digital-Sales-to-Rank-as-Heaviest-US-Online-Spending-Day-in-History*

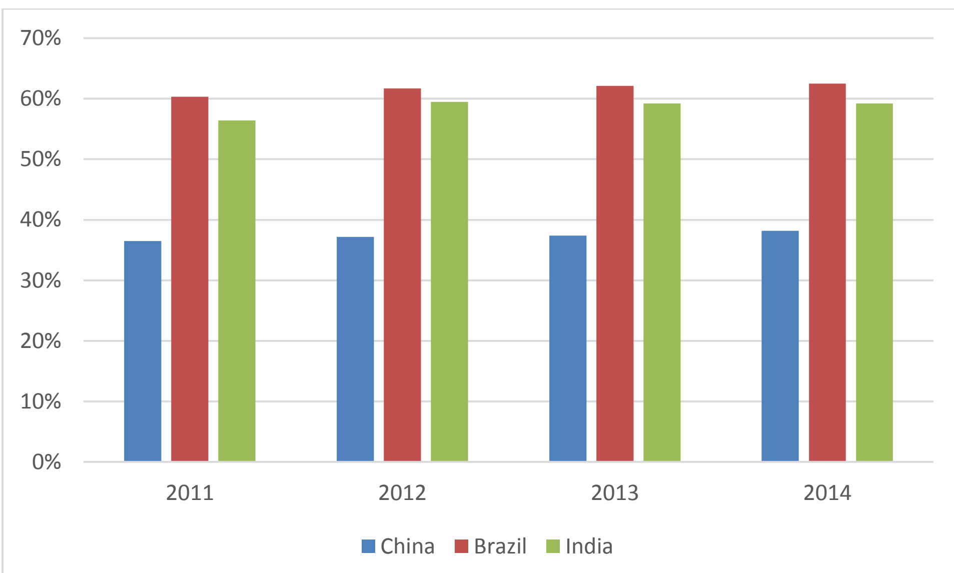
Alibaba's reported online sales eclipsed the combined $11.4 billion in store and online sales from last year's Black Friday.[26] Ninety-five million customers made at least 467 million purchases over the weekend, with a peak of 140,000 transactions per second.[27] In total, 678 million Singles' Day packages were delivered, a 66 percent increase from last year.[28]

Alibaba worked to globalize the event by folding in international buyers and sellers. Several U.S. firms—such as Walmart, Nike, and Macy's—participated in the event, and U.S. buyers are estimated to have purchased $1.4 billion worth of goods.[29] Alibaba has worked to position itself as a gateway for foreign firms to connect with Chinese consumers and many foreign companies took advantage of this opportunity. Alibaba reports that one-third of Singles' Day consumers did business with foreign brands or sellers.[30] There may be opportunities for U.S. sellers in China as Chinese e-commerce spending suggests a preference for safe, high-quality foreign goods. For example, this year Chinese online consumers purchased significant quantities of Australian baby formula—creating temporary shortages in Australian supermarkets—as Australian formula is perceived to be safer than the Chinese alternative. Almost 300,000 Chinese infants fell ill in 2008 after drinking Chinese baby formula laced with melamine.[31]

This rise in Chinese online spending coincides with China's growing middle class and Internet connectivity. This year Credit Suisse estimated China's middle class numbered 109 million people,* exceeding the U.S. middle class by 17 million people.[32] Similarly, by 2014, 48 percent of Chinese citizens had access to the Internet—a total of 649 million people. Growth in Internet access is slowing, however; only 31 million new users were added in 2014, an increase of 5 percent.[33]

Despite this impressive display of consumption, overall Chinese consumer spending remains low even as China seeks a rebalance away from investment-led growth. In 2013, per capita annual consumption in China stood at roughly $1,600 compared with $4,760 in Brazil and $5,500 in Russia.[34] Similarly, Chinese consumption as a share of gross domestic product (GDP) has remained level around 36 percent (see Figure 2).[35] However, while Chinese consumption is low, significantly more of it is spent online relative to other countries, including the United States. In 2014 Chinese online retail totaled an estimated $454 billion, compared to $315 billion in the United States.[36] As Figure 3 shows, almost 12 percent of Chinese retail shopping is now done online. In part, the rise of online retailing is explained by the fact that Chinese consumers tend to purchase more daily consumption items—particularly foodstuffs—online, whereas U.S. consumers do not.[37]

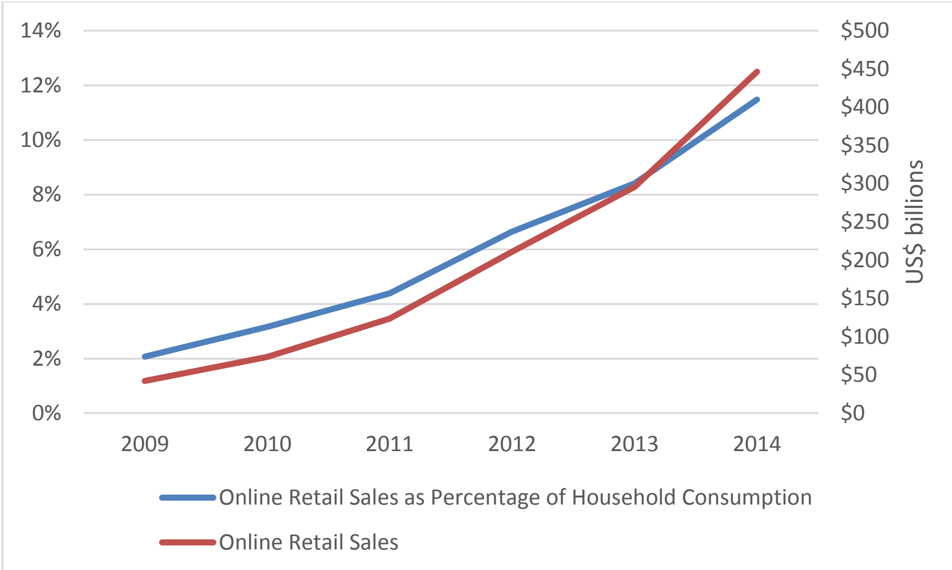
Figure 2: Household Consumption as a Percentage of GDP, 2011–2014



Source: China's National Bureau of Statistics, via CEIC database; World Bank Data. *http://data.worldbank.org/indicator/NE.CON.PETC.ZS.*

* Estimates for China's middle class use a different wealth threshold ($29,245) than the United States ($50,000) to adjust for differences in local purchasing power.

Figure 3: Chinese Online Retail Sales and Household Consumption, 2009–2014



Source: China's National Bureau of Statistics, via CEIC database; Richard Dobbs, "China's E-Tail Revolution: Online Shopping as a Catalyst for Growth," *McKinsey and Company*, March 2013. *http://www.mckinsey.com/insights/asia-pacific/china_e-tailing.*

Skeptics cautioned that the $14.3 billion in sales reported by Alibaba may be inflated. Singles' Day numbers are closely watched and many companies take steps to boost their numbers. Alibaba allows consumers to make down payments before Singles' Day and then pay the remaining balance on November 11—possibly boosting Singles' Day sales figures.[38] Additionally, there have been reports of Chinese online venders paying customers to purchase their products and then return them to boost reported sales and seller rankings on Alibaba.[39] A spike in seller activity is expected on Singles' Day, presenting optimal conditions for retailers to manipulate sales figures. According to industry estimates, roughly 25 percent of the sales from Singles' Day in 2013 were returned.[40] Sellers with high sales volume appear higher in Alibaba search results, incentivizing online sellers to arrange fake sales. Much of what is sold in China's online markets is also counterfeit. According to China's State Administration for Industry and Commerce (SAIC), 40 percent of e-commerce goods are counterfeit or of low quality, and 63 percent of the goods sold through one of Alibaba's online markets are similarly compromised.[41]

While Alibaba appears to have captured most of the Singles' Day activity, it is facing increasing competition from other Chinese online marketplaces. Rival JD.com reported higher growth in Singles' Day sales—sales were up 130 percent from 2014 versus 69 percent for Alibaba.[42] Nevertheless, Alibaba enjoys an unusual advantage in marketing Singles' Day specials. In 2012, Alibaba trademarked the "double 11" that denotes the holiday and its date, preventing its competitors from advertising under the common Chinese name for the holiday.[43] In 2014, the SAIC issued a notice confirming that only Alibaba had the right to advertise under this expression.[44]

Sector Spotlight: Traditional Chinese Medicine

In October, Tu Youyou, a retired researcher at the China Academy of Chinese Medical Sciences, was awarded (jointly, with two other scientists) the Nobel Prize in physiology or medicine for her role in discovering artemisinin, a drug with antimalarial applications, marking China's first Nobel award in science.[45] Dr. Tu, who was tasked with curing drug-resistant malaria during the Cultural Revolution, reportedly read through 2,000 traditional Chinese recipes before successfully identifying and isolating artemisinin, an active ingredient extracted from wormwood.[46] In response to receiving the prize, Dr. Tu said in a statement, "Artemisinin is a gift for the world's people from traditional Chinese medicine [TCM]."[47] Others have argued Dr. Tu's discovery, which relied on a Western approach of isolating pure compounds, is more representative of modern, scientific medical research than of the validity of TCM.[48]

Since Dr. Tu was awarded the prize, the TCM field has reignited interest and debate among Eastern and Western medical practitioners and scientists.[49] Amid China's economic slowdown, domestic TCM manufacturers are supplementing dampened domestic sales by expanding exports; simultaneously, international restrictions on unregulated TCM products are pushing domestic producers to standardize and internationalize quality. While TCM-related remedies and research institutes have proliferated in the United States and Europe in recent years, regulators are concerned that because TCM products and treatments are not subject to the same scientific rigor and certification as those in Western medicine, their effects are not only unknown, but also potentially dangerous. Critics of TCM also point out its devastating effect on wildlife conservation: the demand for TCM ingredients made from the parts of endangered species has fueled massive illicit global trade of threatened animals, including rhinoceroses, elephants, tigers, pangolins, and manta rays.[50,*]

Domestic TCM Market

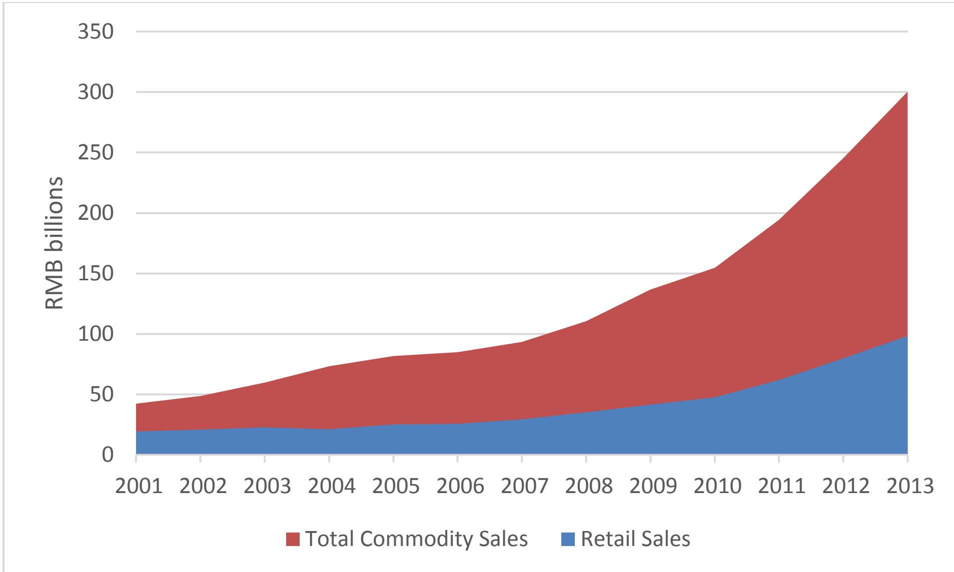
TCM is a holistic medical system for the diagnosis, prevention, and treatment of diseases, and its practice across Asian cultures dates back more than 2,500 years.[51] TCM encompasses many different therapies, including acupuncture, herbal medicine, tai chi, and others, and is characterized by an underlying Chinese philosophy of Yin-Yang balance.[52] The practice of TCM has been predominant—especially in rural areas—in China for thousands years, and today serves as a primary treatment channel for many uninsured patients who cannot afford high out-of-pocket payments for Western medicine treatments.[53] Starting in the 1950s, the Chinese government first began efforts to modernize the field by establishing TCM higher education, research, and hospital networks.[54] From the 1980s to the 2000s, China's national TCM policies promoted increased international outreach and integration with Western medicine in China and abroad.[55]

To promote the development of the TCM industry, the Chinese government has issued a host of supporting policies and improved supervision and regulation of TCM products at both the national and local levels.[56] Under these policies, TCM has experienced phenomenal growth. Industry revenue is expected to reach $28.3 billion in 2015, a 13.4 percent increase from 2014 and representing an average annualized growth rate of 19.1 percent since 2010.[57] As the main instruments of treatment in TCM hospitals as well as important components of Chinese patent drugs,[†] TCM pills generated an estimated $27.1 billion in domestic demand in 2014.[58] According to China's National Bureau of Statistics, retail sales of TCM commodities—products sold in measured doses—accounted for 37.8 percent of total domestic TCM commodities sales in 2013 (see Figure 4).

[*] For more information on China's illegal wildlife product market, see U.S.-China Economic and Security Review Commission, *Monthly Analysis of U.S.-China Trade Data*, December 2014. *http://origin.www.uscc.gov/sites/default/files/Research/December%202014%20bulletin.pdf*.

[†] Here, 'Chinese patent drugs' refers to a standard formulation of herbs combined in pill form, rather than a legal patent a pharmaceutical company would rely on to protect intellectual property.

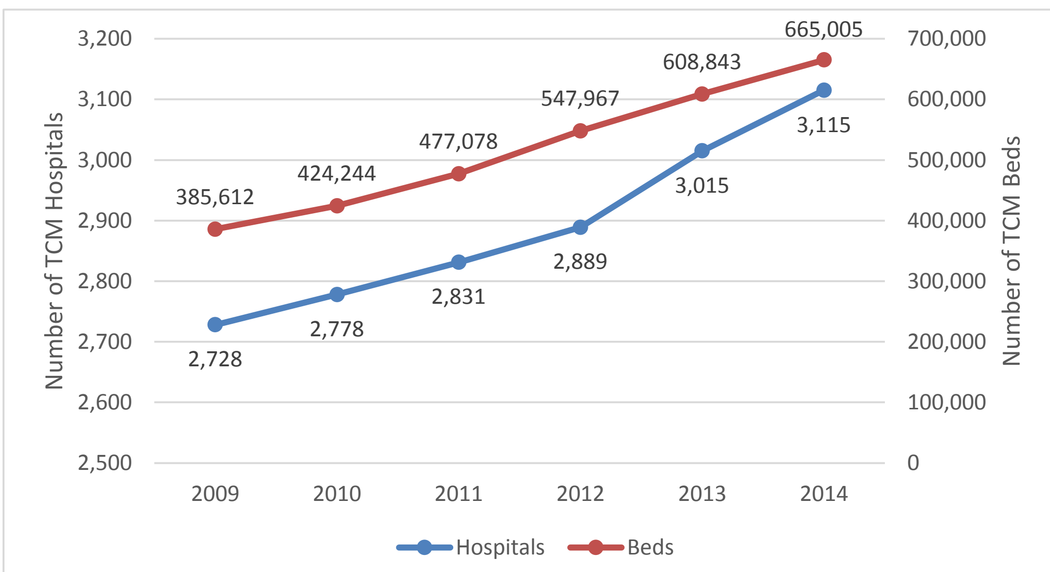
Figure 4: Domestic Chinese Herbal and Traditional Medicine Sales, 2001–2013



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

Driven by government support and increasing demand amid rising healthcare prices in China, the development of China's TCM hospital industry has also accelerated in recent years.[59] In 2015, industry revenue is expected to reach $46.7 billion, a 14 percent increase from 2014 and representing annualized growth of 18 percent since 2010.[60] As of 2014, there were 3,115 TCM hospitals in China and 665,005 beds (see Figure 5).[61] According to one industry research report, most TCM hospitals have adopted Western medical devices and detection methods for making diagnoses.[62]

Figure 5: TCM Facilities in China, 2009–2014



Source: China's National Health and Family Planning Commission, via CEIC.

After a boom in 2013, however, oversupply of TCM products and increased competition from cheaper prescription drugs threaten to throw the domestic industry into recession.[63] When wholesale prices for TCM herbs were soaring, Chinese herb farmers planted and stockpiled more herbs, hoping to benefit from the price surge; but after the cost of some high-quality TCM herbs dropped as much as 80 percent in mid-2015, the industry is in a slump even though the market is growing.[64] Since China's National Development and Reform Commission lifted price controls on most medicines in June to promote market-based pricing reforms, TCM products are faced with increased competition from more modern drugs.[65]

Internationalization of TCM

Robust exports of TCM products, boosted by the Chinese government's innovation and export promotion policies, have helped domestic TCM manufacturers mitigate weaker demand in the domestic market.[66] According to China Meheco Co., Ltd., a state-owned pharmaceutical development enterprise, China's TCM exports reached approximately $3.6 billion in 2014, an increase of 13.5 percent year-on-year (see Figure 6).[67] Liu Zhanglin, deputy director of the China Chamber of Commerce for Import and Export of Medicines and Health Products (CCCIEMHP), partially attributes export growth to government programs—like the "One Belt, One Road" initiative[*]—that promote trade and bolster economic development across land and sea routes connected to China.[68] Mr. Liu estimates countries along the Belt and Road account for about half of China's TCM exports.[69] In addition, the modernization and international development of TCM is identified as key for unlocking potential revenues in China's 13th Five-Year Plan for new pharmaceutical development.[70]

Figure 6: China's TCM Product Exports, 2010–2014

Source: China's General Administration of Customs, via CEIC; China Pharmaceutical Innovation and Research Development Association, "Analysis and Forecast of China's 2014 TCM Product Trade," *Medical Economics Reporter*, April 24, 2014. Staff translation. *http://www.phirda.com/newsinfo.aspx?id=11307*; Yu Zhibin and Mei Li, "TCM Trade Performed Relatively Well in 2013," *Medicine Economics Reporter*, February 24, 2014. Staff translation. *http://www.yyjjb.com/html/2014-02/24/content_205443.htm*; Li Kai, "TCM Exports Will Hit $3 Billion, a 20 Percent Increase Year-on-Year," Caixin (China), July 4, 2013. Staff translation. *http://china.caixin.com/2013-07-04/100551289.html*; Yu Zhibin, "Entering a New Era of TCM Trade," *Modern Chinese Medicine* 14:2 (2012): 50. Staff translation. *http://wenku.baidu.com/view/3d6a45d0c1c708a1284a4416.html*; China Association of Traditional Chinese Medicine, "Analysis of TCM Trade in 2009 and Forecast for 2010." Staff translation. *http://www.catcm.org.cn/newsmain.asp?id=678&cname=*.

In the first half of 2015, TCM products were exported to 154 countries and regions, with Hong Kong ranking as the biggest overseas TCM market, according to the CCCIEMHP.[71] After the Asia Pacific region, the United States was the second-largest destination for TCM exports in the first six months of 2015, according to *Medicine Economic Reporter*, a publication affiliated with the China Food and Drug Administration (CFDA). The *Reporter* estimates TCM exports to the United States totaled $270 million in the first half of 2015—a 17.2 percent increase from the

[*] For deeper discussion of China's "One Belt, One Road" and related initiatives, see Chapter 3, Section 1, "China and Central Asia," in U.S.-China Economic and Security Review Commission, *2015 Annual Report to Congress*, November 2015, 391–418. *http://origin.www.uscc.gov/sites/default/files/Annual_Report/Chapters/Chapter%203%2C%20Section%201%20-%20China%20and%20Central%20Asia.pdf*.

previous year—accounting for 14.1 percent of total Chinese TCM exports.[72] Plant extracts comprised 78.2 percent of Chinese TCM exports to the United States.[73]

In tandem with increasing U.S. imports of TCM products, U.S.-based TCM and related alternative medicine institutions and practices have also increased in number, boosting international recognition of the field. The National Center for Complementary an Integrative Health (NCCIH), an arm of the U.S. National Institutes of Health established in 1998 to generate scientific evidence of the usefulness of complementary health approaches, estimated in 1997 there were approximately 10,000 TCM practitioners serving more than one million patients a year.[74] While acupuncture is most representative of TCM practice in the United States—California alone has an estimated 15,000 acupuncturists—herbal TCM remedies have not gained widespread approval.[75] In March 2014, the Cleveland Clinic become one of the first hospital-based clinics in the United States to open a Chinese Herbal Therapy Clinic to provide patients with supplementary, holistic healthcare options. Changes to Ohio laws enabled Chinese herbal therapists to legally prescribe custom, traditional herb recipes within a clinical setting.[76]

TCM Regulation in the United States and Europe

Many U.S. TCM imports are marketed as dietary supplements because the U.S. Food and Drug Administration (FDA) regulations governing dietary supplements are less stringent; to be sold as a drug, the manufacturer would have to provide proof of effectiveness and safety.[77] While many TCM practices are considered safe by the FDA, others, especially herbal products, can be dangerous. There have been reports of TCM products tainted with drugs, toxins, or heavy metals, or not containing the listed ingredients.[78] For example, a 2013 study conducted by Greenpeace East Asia found nearly 90 percent of 36 samples of Chinese-made herbal products being sold abroad contained three or more kinds of pesticides.[79] Almost half the samples contained pesticides listed as highly or extremely hazardous by the World Health Organization, and more than 80 percent showed pesticide levels that exceed what European authorities consider the maximum level of safety.[80] A separate 2014 study found TCM was a major cause of acute liver failure in China.[81]

In contrast to U.S. regulators, European regulators have stepped up legal and regulatory efforts to safeguard against these potentially dangerous goods by proposing to introduce statutory registration of herbal practitioners and remedies.[82] Herbal medicine products in the EU are regulated by the 2004 European Directive on Traditional Herbal Medicinal Products, which came into full effect on April 30, 2011.[83] Prior to the directive's implementation, TCM and other herbal medicines were regulated by EU member states at the national level.[84] While the directive unifies the licensing system for traditional herbal medicine products, the requirement that the product demonstrate a minimum of 15 years of medicinal use in the EU is an obstacle for non-European traditional herbal medicines like TCM.[85] In March 2015, for example, the first traditional Chinese medicine obtained approval from the UK Medicines and Healthcare Products Regulatory Agency to be sold over the counter there.[86] Chinese pharmaceutical SOE Meheco Co., Ltd. assesses that the EU's 2014 restrictions on uncertified traditional medicines dampened the demand for TCM exports in the EU, where prescription TCM sales fell 4.5 percent in 2014 to $10.1 million.[87] To overcome these restrictions, internationalization and modernization are upheld in domestic policy as prerequisites for expanded recognition and operation of the TCM industry abroad, according to Lu Chuanjian, vice president of the TCM hospital in Guangzhou.[88]

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