

# ***MIZUHO CHINA MONTHLY***

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China Business Promotion Department  
Advisory Department

## - Executive Summary -

<b>Industrial and Regional Policies</b>	<b>Foreign direct investment in China: Development outcomes and the outlook for the future Part 1</b>
<p>As China marks the fortieth anniversary of its shift to a policy of reform and opening up at the end of 1978, this two-part report offers an overview of the outcomes and challenges that have come with growth in foreign direct investment in China (inbound), which rivals that in China's FDI (outbound; examined here previously), and the adjustments that are being made to China's foreign policy as its economy transitions into a "new normal" of slower growth, and discusses the outlook for the future of FDI against a protracted trade war between China and the United States.</p>	
<b>News from the China Advisory Department</b>	<b>China's Changing Pharmaceuticals Market</b>
<p>China is facing an urgent task of reducing medical expenses. To maintain social stability, the country must inevitably upgrade the quality of its public services. China is now working to cut costs and improve the quality of its medical sector at the same time. This article will focus on the ongoing reform in China's pharmaceuticals distribution system.</p>	

# Foreign direct investment in China: development outcomes and the outlook for the future

## Part 1

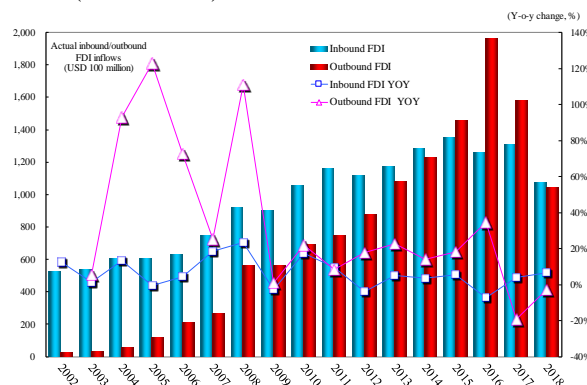
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### 1. A new phase in foreign direct investment in China

For many years now China has ranked the world's second largest FDI recipient (the largest among developing countries) after the United States. China's outbound FDI has increased rapidly in recent years and overtook inbound FDI in 2015 (taking a particularly long lead in 2016; **Figure 1**), but the positioning again reversed in 2017. Trade friction between China and the United States is intensifying by the day however, and this together with the structural reforms in China's economic policy and its industrial upgrade are ushering in a major shift in both inbound and outbound FDI. This is taking place against a backdrop of the Chinese government's pursuit of qualitative improvements over quantitative growth, the shift in emphasis away from policies aimed at attracting FDI in industry and the manufacturing sector and towards its tertiary (service) and modern, emerging sectors, and the need to balance the synergies of growth in outbound and inbound investment with domestic regional development and to link this to international economic cooperation so as to adapt to the changes in both the global and the domestic economy and industry.

In fact, as the conspicuous increase in numbers of new foreign-funded companies being set up in China given in **Figure 2** shows, investment inflows per company are clearly getting smaller, whilst small-scale investments in the tertiary industry, etc., are now outpacing FDI inflows into manufacturing.

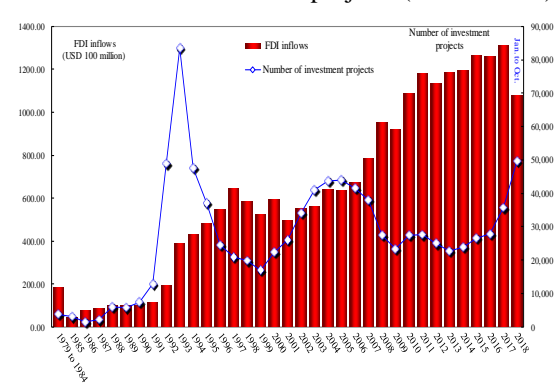
Figure 1: Trends in China's inbound/outbound FDI flows (2002 - 2018)



Source: Compiled from respective yearly editions of the Statistical Bulletin of China's Outward Foreign Direct Investment, published by the Ministry of Commerce (MOFCOM), National Bureau of Statistics (NBS) and State Administration of Foreign Exchange (SAFE).

Note: FDI inflows for 2018 are the results for the first 10 months of the year, those for FDI outflows for the first 11 months.

Figure 2: Long-term trends in inbound FDI inflows and numbers of investment projects (1978 - 2018)

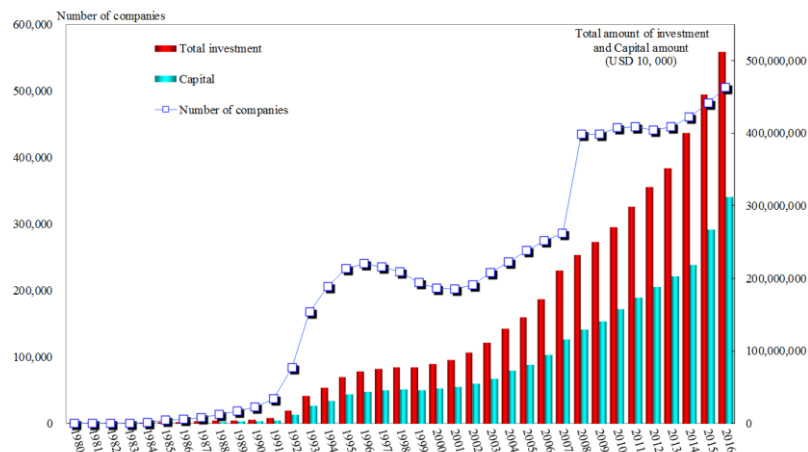


Source: Compiled from official data announcements by the NBS and the MOFCOM. The data for 2018 are the preliminary figures for the first 10 months of the year.

**Figure 3** plots the increase in numbers of foreign-funded companies setting up in China and enables the division of inbound FDI into four distinct phases covering the forty years between 1978 to the present, where phase one

spans the years 1978 to 1991, phase two the years 1992 to 2000, phase three the years 2001 to 2007, and phase four the years from 2008 to the present. Each phase was set in motion by a specific event: (1) the determination of China's reform and opening up policy on December 18, 1978, (2) Deng Xiaoping's Southern Tour, (which was departed on January 18), speech of January 1992, (3) China's accession to the World Trade Organization in December 2001, and (4) the global financial crisis that was triggered by bankruptcy of Lehman Brothers in September 2008. Early 2018, meanwhile, marked the outbreak of a trade battle between China and the United States and marks a critical juncture not only for inbound/outbound FDI but also for Chinese economic and social development that looks set to become both a symbolic feature and to usher in a new phase in inbound FDI.

Figure 3: Phases in inbound FDI growth as evidenced by calendar year (company) registrations



Source: Compiled from the **China Trade and External Economic Statistical Yearbook 2017** by the Department of Trade and External Economic Relations Statistics, NBS

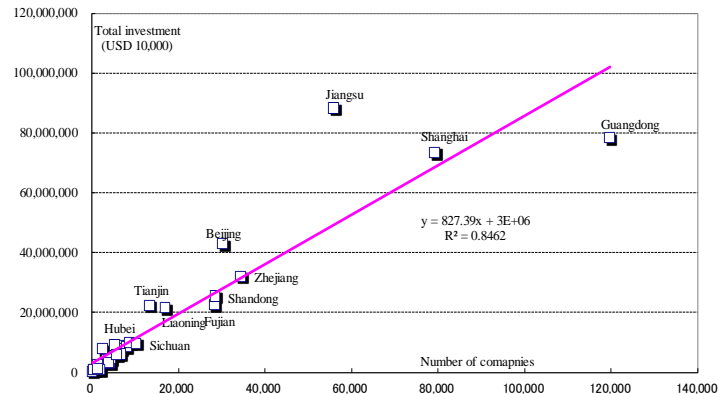
## 2. The two major characteristics of FDI in China

Looked at in terms of industry agglomeration principles and corporate business strategies, there are two distinct characteristics to FDI in China: (1) its extreme concentration / clustering along the eastern coastal area of China and (2) the predomination of wholly foreign-owned enterprises (WFOE) as the investment vehicle of choice for China-based businesses.

Turning first to (1), as of 2016, Guangzhou, Jiangsu and Shanghai are the three biggest recipients of inbound FDI both in terms of the number of foreign-funded companies set up and FDI inflows, with the number of foreign incorporations surpassing FDI inflows in Guangzhou, whilst the reverse is true in Jiangsu (FDI inflows outstrip incorporations). In Shanghai, FDI inflows and foreign-funded enterprise numbers are evenly matched (fall closest to the trend line in **Figure 4**), but Guangdong, Jiangsu and Shanghai alone continue to account for roughly half the national inbound FDI total. The next group of FDI agglomeration comprises Beijing, Zhejiang, Shandong, Tianjin, Fujian and Liaoning, all of which are in eastern China and have highly developed economies and industries. The momentum of growth has been particularly rapid in recent years, with Hubei, Sichuan and the other provinces of China's midwestern region where corporate global expansion has

increased falling markedly behind as foreign investment in China concentrates in the eastern region.

Figure 4: Regional distribution of foreign-funded companies and FDI inflows (2016)



Source: Compiled from the *China Trade and External Economic Statistical Yearbook 2017* by the Department of Trade and External Economic Relations Statistics, NBS

**Table 1** gives cumulative FDI stocks as of 2016 and shows the distribution of FDI inflows in fiscal 2017 results across three major regions (including some groups). It evidences further growth in the share of FDI inflows in the eastern region in 2017 over the previous year (with the share of new incorporations increasing from 83.93% to 90.4% and the share of FDI inflows from 80.48% to 87.5%), and argues that the concentration of FDI in China's eastern coastal area continues to know no bounds. Viewed in terms of industry agglomeration principles and economic rationality, this "heavy concentration" of foreign investment is only natural. As is well known, China's policy of openness has been broadly characterized by a series of special preferential policies for foreign investment that have predominantly focused on the eastern coastal regions, including the four special economic zones and fourteen open coastal cities that were established in the 1980s, Pudong, the financial district of Shanghai that was established in the 1990s, and the free trade zones that were first introduced in 2000, and these have proved highly effective in attracting foreign investment. As might be expected, the establishment of numerous development zones in the eastern coastal region as part of efforts to improve the climate for investment in this area (**Figure 5**) has yielded results in terms of agglomeration advantages and effects for expansion by foreign corporations. It will come as no surprise to learn that more than 80 percent of foreign buyouts of Chinese firms (M&A deals), which have been on the increase in recent years, are concentrated in the eastern region (2,200 deals in 2017; **Figure 6**).

Table 1: Trends in the distribution of FDI in China over its three major regions

[A] Distribution of cumulative FDI inflows over the three major regions of China as of the end of 2016

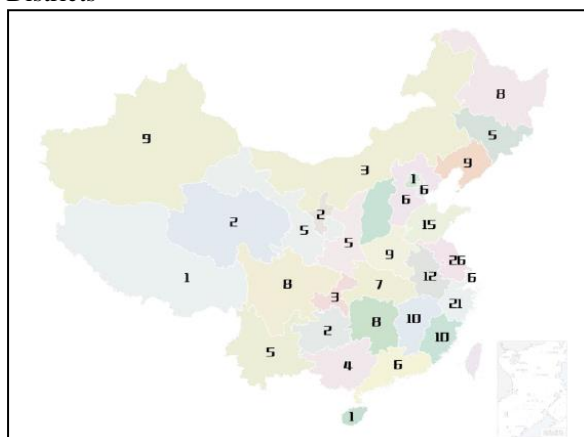
Region \ Item	No. of newly incorporated foreign-funded enterprises		Actual FDI inflows	
	No. of companies	Ratio to total (%)	Amount (USD 100 million)	Ratio to total (%)
Eastern region	725,609	83.93	15084.05	80.46
Central region	89,091	10.31	1409.82	7.52
Western region	49,504	5.74	1189.34	6.34
Related authorities	199	0.02	1062.96	5.67
Total	864,503	100	18746.17	100

[B] Distribution of FDI inflows over the three major regions of China in 2017

Region \ Item	No. of newly incorporated foreign-funded enterprises			Actual FDI inflows		
	No. of companies	YOY (%)	Ratio to total (%)	Amount (USD 100 million)	YOY (%)	Ratio to total (%)
Eastern region	32,219	28.8	90.4	1,146	4.9	87.5
Central region	1,672	1.5	4.7	83	17.1	6.3
Western region	1,761	43.2	4.9	81	-15.5	6.2
Total	35,652	27.8	100	1,310	4	100

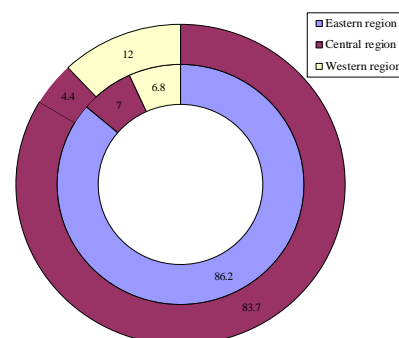
Source: Compiled from the MOFCOM “Report on National Assimilation of FDI in China in 2017” and “Statistics of FDI in China for January to December 2017”

Figure 5: Distribution of National Economic Development Zones in China's Administrative Districts



Source: Reprinted from the MOFCOM “Statistics on FDI in China 2018”

Figure 6: Regional distribution of inbound FDI deals by M&amp;A in 2017

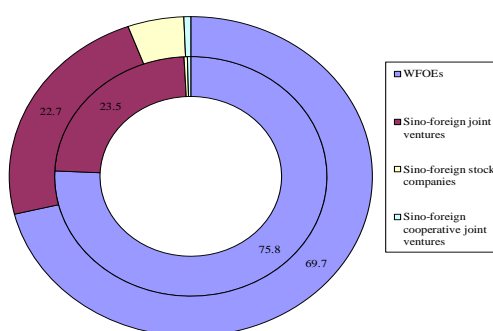


Source: Compiled from the MOFCOM “Statistics on FDI in China 2018”. The inner circle shows the number of newly incorporated enterprises, the outer circle the composition of FDI inflows.

Trends in investment vehicles (2), meanwhile, point to little change in the preference for wholly foreign-owned enterprises (WFOE), which account for the overwhelming majority of FDI in China at more than 60 percent (and topping 70% in some periods; **Figure 7**). For foreign-funded enterprises, this investment vehicle has various benefits as a management

strategy in that it gives the parent organization the strongest decision-making authority and the highest pay off and allows it to maintain and protect its technologies and expertise, though recent years have witnessed an unprecedented increase in business alliances and joint ventures (with local companies) in some industries and regions, as foreign corporations look to enlarge their share of the domestic market and/or to utilize the management resources of the Chinese partner<sup>1</sup>, and there is a strong possibility that the increased clout of Chinese corporations and growing competition in the domestic market will lead to growth in investment and start-ups by Sino-foreign partnerships.

Figure 7: Breakdown of inbound FDI investment vehicles for newly established companies in 2017



Source: Compiled from the MOFCOM “Statistics on FDI in China 2018”. The inner circle shows the number of newly incorporated companies, the outer circle the composition of verified deal amounts.

### 3. Changes in trends among the leading investors (countries) of FDI in China

In addition to the two prominent characteristics of FDI in China dealt with above, another characteristic of inbound FDI is the fact that Hong Kong is the largest investor in China both in terms of the scale of its investment and the number of companies expanding into the mainland (**Table 2**). Hong Kong accounts for the majority of FDI in China for the same reason that it is also the leading destination for outbound FDI from the mainland and this is commensurate with the volume of Chinese trade that passes through Hong Kong, but since it is also a result of the peculiarities of trade and investment statistics, FDI in China from Hong Kong will not be discussed here. Instead, this report will concentrate on a comparative study of trends among corporate investors from Japan, EU, and the United States targeting China, since this is likely to be of most interest to readers.

<sup>1</sup> A recent report published by the MOFCOM shows that mergers with a Chinese-funded enterprise account for the majority of inbound FDI by M&A deals (1,215 of the 2,066 M&A deals finalized in 2017, or 58.8%, were mergers with Chinese-funded enterprises).

Table 2: Country / Region Ranking of FDI in China on a stock basis (as of the end of 2016)

Country/region	No. of companies	Ratio to total (%)	Actual amount of investment (USD 10,000)	Ratio to total (%)
Hong Kong	398,966	46.15	9,147.90	48.80
British Virgin Islands	23,857	2.76	1,559.13	8.32
Japan	50,416	5.83	1,049.21	5.60
Singapore	23,165	2.68	852.68	4.55
America	67,085	7.76	798.56	4.26
South Korea	61,758	7.14	686.97	3.66
Taiwan	98,815	11.43	646.52	3.45
Cayman Islands	3,281	0.38	353.24	1.88
Germany	9,394	1.09	281.77	1.50
Samoa	8,394	0.97	262.14	1.40
UK	8,451	0.98	210.53	1.12
Netherlands	3,188	0.37	160.43	0.86
France	5,197	0.6	157.29	0.84
Mauritius	2,436	0.28	141.76	0.76
Macao	15,074	1.74	136.03	0.73
Other countries / regions	85,026	9.84	2,302.02	12.28
Total	864,503	100	18,746.17	100.01

Source: Compiled from Ministry of Commerce statistics on foreign investment.

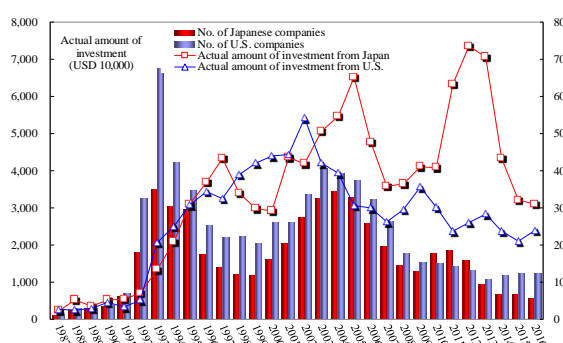
Both Japan and the United States merit attention as the foremost and heaviest developed nations investing in China, but the major changes that have occurred in recent years cannot be overlooked (**Figure 8**).

Whether because the Chinese investment boom is over or as a result of the escalating trade tensions (between China and the United States), FDI in China from both Japan and the United States is showing similar trends both in terms of amounts and numbers of incorporations. The decline seen in recent years continues, with the share in total FDI in China accounted for by the two nations dropping from around 10 percent to around 2 percent. In marked contrast to this trend, FDI in China from the EU has increased substantially in recent years (**Figure 9**), with the share of inbound FDI accounted for by these three parties evidencing a complete reversal (**Figure 10**).

Investment in China from Japan, rather than the United States, is expected to make a recovery down the line, and there will likely be further growth in FDI in China from the countries of the EU as progress is made on the “Belt and Road” initiative. The Chinese government, meanwhile, is targeting growth in China-bound investment from other regions associated with the “Belt and Road”, and growth in two-way investment and trade traffic between China and the countries and regions that are linked to the “Belt and Road” will likely have benefits in correcting the current over-concentration of inbound FDI and in easing regional disparities both within China and beyond its borders.

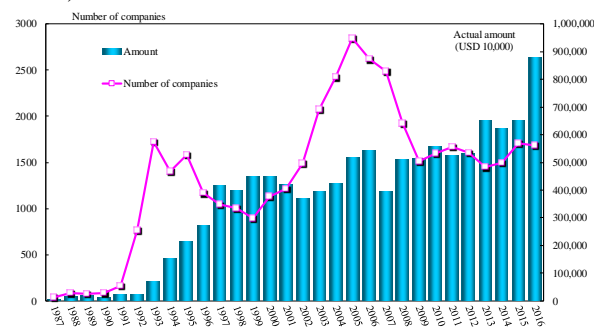


Figure 8: A comparison of FDI in China from the United States and Japan (1987-2016)



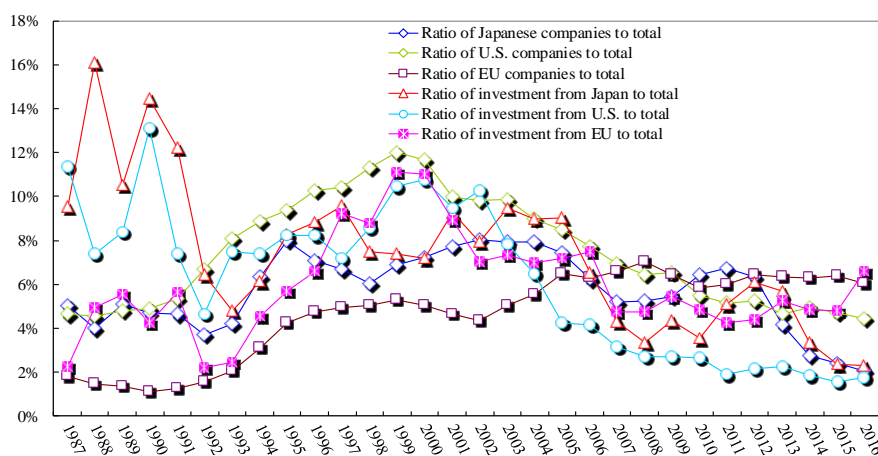
Source: Compiled from the MOFCOM “Statistics on FDI in China 2017”.

Figure 9: Trends in FDI in China from the EU (1987-2016)



Source: As for Figure 8.

Figure 10: Changes in the share of FDI in China by Japan, the United States and the EU (1987-2016)



Source: As for Figure 8.

#### 4. An overview of the economic effects of FDI in China

Inbound FDI has had various effects on the economy of China, including growth in industrial production, etc., economic growth resulting from job creation, and the promotion of international trade, though much recent economic development research has pointed to its impact on the transfer of technology<sup>2</sup>.

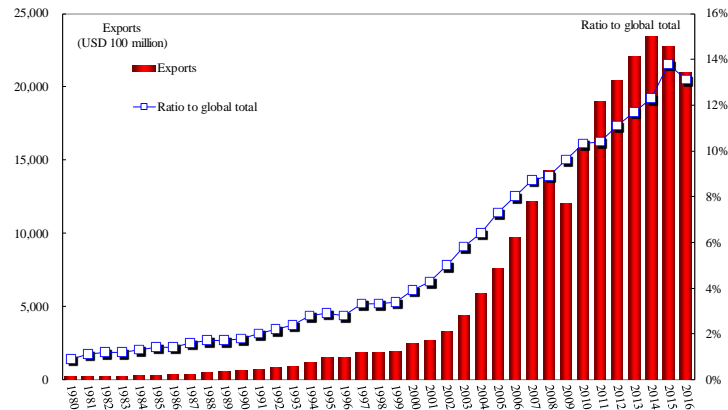
The effects of foreign investment in terms of trade promotion, increased tax revenues and job creation, etc., over time are reflected in economic statistics published by the Chinese government and export reports, thus this section uses these materials to provide an overview of the economic effects – both direct and indirect – of FDI in China.

The first and most striking impact of this growth in FDI in China has been its effect on promoting trade in general and foreign exports in particular. As is well known, China

<sup>2</sup> For example, “Keizai grobarizeishon no shinkasetsu” (A new hypothesis on economic globalization) by Kiyoshi Ikemoto and “grobarizeishon no shogeki” (The impact of globalization), edited by Yoshihiko Motoyama, Toyo Keizai Inc., 2001 offer good explanations of the merits and drawbacks of FDI, whilst “kokusai keizaigaku” (International economics) by Ryuhei Wakasugi, Iwanami Shoten, 1996 and “kaiatsu keizaigaku nyumon” (An introduction to development economics) by Yasuyuki Todo, SAIENSU-SHA, Co., Ltd., 2015, etc., offer good analyses of the effects on technology transfer of direct investment and foreign trade.

pursued an economic development strategy based on the processing trade that involved utilizing its abundant and surplus rural labor population to perform cheap labor for many years after it embarked on its policy of reform and opening up. This resulted in remarkable growth in foreign trade, with exports surging from 11.6 billion USD in 1980 to 2,097.6 billion USD in 2016 (an increase of approximately 116-fold or a compound annual growth rate of 15%), with its share of global trade rising from 0.9 percent in 1980 to 13.1 percent in 2016 (making it the world's second largest exporter after the United States; **Figure 11**).

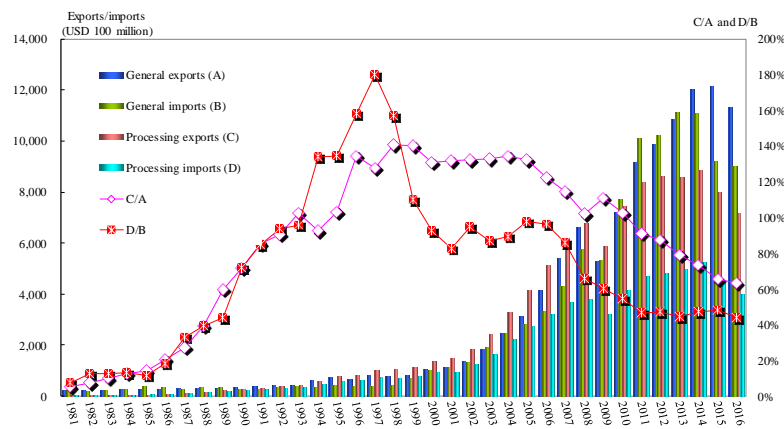
Figure 11: Trends in goods exports from China and ratio of global total (1980-2016)



Source: Compiled from the **China Trade and External Economic Statistical Yearbook 2017** by the Department of Trade and External Economic Relations Statistics, NBS

**Figure 12** shows the trends in China's general and processing trade imports and exports, but it also tracks the growth, high point and degeneration of its processing trade. For many years the ratio of China's processing trade to general trade hovered above 100 percent, but it began dropping in the years following the global financial crisis, with processing exports now accounting for 60 percent and imports for around 40 percent. The processing trade, which accounted for 54 percent of China's total trade at its peak in 1998, accounted for less than 30 percent of total trade in 2017.

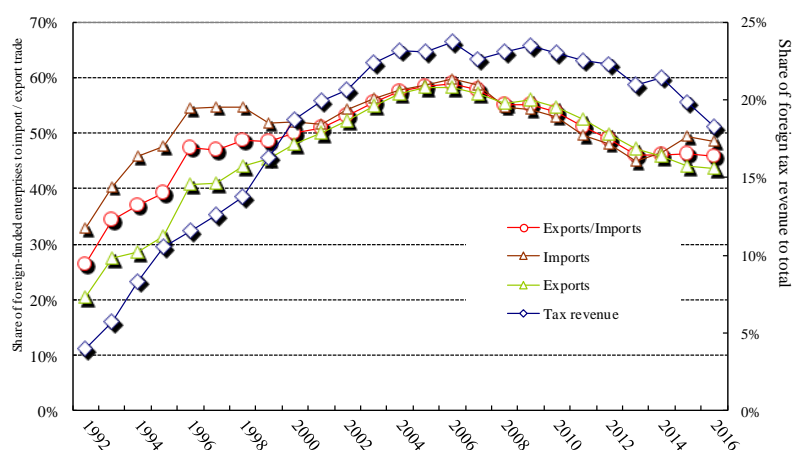
Figure 12: Changes in China's general trade and processing trade structure (1981-2016)



Source: Compiled from the **China Trade and External Economic Statistical Yearbook 2017** by the Department of Trade

**Figure 13** shows the ratios of external trade and tax revenue from foreign-funded enterprises to the totals. At one point, foreign-funded enterprises accounted for more than 50 percent of China's external trade, but that ratio has been falling since the global financial crisis. It has, however, remained at above 40 percent in recent years, which argues that foreign-funded enterprises continue to play a role for China in promoting external trade. The ratio of tax revenue from foreign-funded enterprises to the total has dropped from a high of 23.7 percent (in 2006) to 18.3 percent in 2016, but these foreign companies continue to be a major source of tax revenue for the government.

Figure 13: Changes in the ratio of external trade and tax revenue from foreign-funded enterprises to the totals



Source: Compiled from “Statistics on FDI in China 2017” and the “Report on Foreign Investment in China 2017-2018”

It is, however, job creation that is the most remarkable and visible outcome of the growth in FDI in China. This is consistently reflected in and referenced to in Chinese government statistics and the Ministry of Commerce reports on the introduction (assimilation) of foreign capital. Foreign-funded enterprises in principle support around 6 percent of urban employment in China (**Table 3**), whilst the latest report from the Ministry of Commerce indicates the job creation potential (efficiency) afforded by foreign-funded enterprises to be several times higher than that of domestic non-financial companies. As might be expected, there are signs that some foreign-funded enterprises are pursuing greater efficiency by introducing robots (making staff cuts) in a bid to improve the job situation and deal with rising wages.

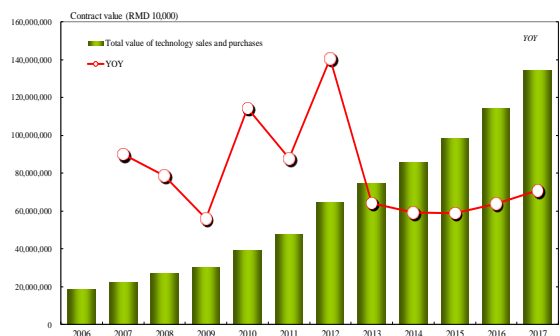
Table 3: A comparison of employment opportunities offered by foreign-funded and domestic enterprises

<i>Item</i> <i>FY</i>	No. of foreign-funded enterprises employees (10,000)	No. of urban workers (10,000)	Ratio of urban workers employed by foreign-funded enterprises (%)	No. of foreign-funded enterprises	Total number of enterprises nationwide	No. of employees per foreign-funded enterprise	No. of employees per company nationwide	Employment opportunities offered by foreign-funded enterprises over domestic companies (multiplier)
2011	2,149	35,914	6.0	230,115	7,331,200	93	49	1.9
2012	2,215	37,102	6.0	243,453	8,286,654	91	45	2.0
2013	2,963	38,240	7.8	202,389	8,208,273	146	47	3.1
2014	2,955	39,310	7.5	231,954	10,617,154	127	37	3.4
2015	2,790	40,410	6.9	237,456	12,593,254	117	32	3.7
2016	2,666	41,428	6.4	203,836	14,618,448	131	28	4.6

Source: Compiled from the MOFCOM "Statistics on FDI in China 2018"

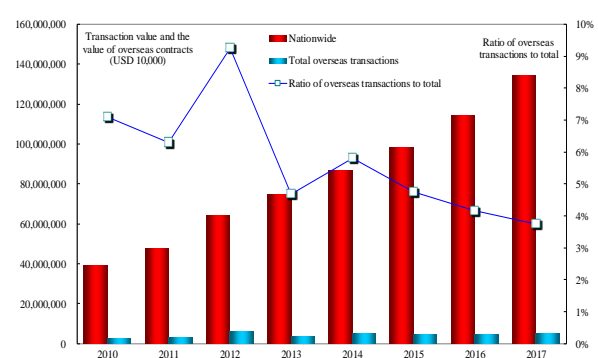
The effects of FDI in China on technology transfer are incalculable, but there are limits on what can be evidenced using directly related statistical data. By way of circumstantial evidence, **Figure 14** shows the speed of the growth in technology transactions (which equates to a compound annual growth rate of more than 20%). Of note is the fact domestic enterprises spend more on technology acquisitions than their foreign-funded counterparts. Overseas technology transactions, including those with Hong Kong, Macao and Taiwan, have leveled off since their peak in 2012, dropping sharply from 9.3 percent of the total in 2012 to 3.8 percent in 2017 (**Figure 15**).

Figure 14: Trends in the value of technology transactions in China



Source: Compiled from respective editions of the National Bureau of Statistics "China Statistical Yearbook". Year-on-year figures are estimates.

Figure 15: Changes in the share of overseas technology transactions to the total

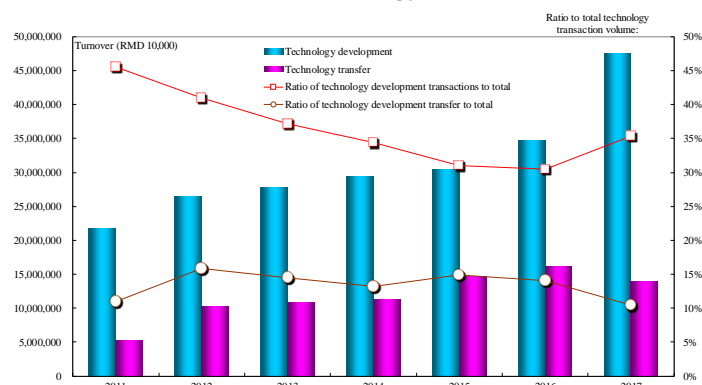


Source: As for Figure 14.

Moreover, a look at the value of technology development and technology transfer(-related) transactions, which account for a large proportion of China's technology transactions (**Figure 16**), shows that whilst the ratio of the former (technology development) to the total has been falling since its high of 45 percent in 2011 it has yet not to drop below 30 percent and in 2017 climbed to 35.4 percent marking an upturn. Growth in transactions relating to the transfer of technology has been sluggish however, with the ratio dropping from 15.9 percent in 2012

to 10.4 percent in 2017<sup>3</sup>.

Figure 16: Volume of technology development and technology transfer transactions and their ratios to total technology transactions in China



Source: National Bureau of Statistics “China Statistical Yearbook (2018). Ratios are estimates.

The above figures argue that China has accumulated sufficient industrial technology infrastructure and technological capabilities for the time being, and offer evidence of a stronger mindset towards the development of technology among domestic companies, particularly in the manufacturing sector, and of a decreasing dependency on foreign technology. This, in turn, is considered to be consistent with the sharp drop in the ratio of foreign-funded processing trade to total trade touched upon earlier and to the drop off in foreign investment in traditional manufacturing and the concurrent increase in FDI into modern emerging industries, a topic that will be dealt with in depth in Part 2 of this report. Shenzhen, which has gone from the world’s factory floor to become one of the world’s most innovative cities, offers the best illustration of this trend.

In the forty odd years since China began welcoming FDI on a large scale, there can be little question of its progress on and development of industrial production, an outcome that is the result of its utilizing the introduction of foreign capital and foreign trade as an effective means of acquiring technology, and this, it bears restating, has been by far the greatest benefit of foreign investment into China. Given the multiple economic effects of foreign investment, meanwhile, powerful statements are being made on promoting foreign investment into China and on further steps to open up domestic markets at the widespread celebrations that are being held to mark the fortieth anniversary of China’s reform and opening up. It is hoped that the development of a new foreign investment policy targeting greater openness in domestic markets will lead to more foreign expansion into the country and improve the quality of foreign investment in China.

[Continued in Part 2: industry and policy]

<sup>3</sup> Ministry of Commerce reports, however, show foreign-funded enterprises to be investing aggressively in R&D, which currently accounts for 22.1 percent of total investment and 19.1 percent of patent acquisitions (as of 2017), and shows foreign-funded enterprises to be contributing to the growth of innovation in China.

**China's Changing Pharmaceuticals Market**  
– Current state and the future of distribution system reform –

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Since its launch in 2009, China's healthcare system reform has been centering initially on universal coverage for health insurance and the expansion of medical resources—medical devices and drugs—in the 12<sup>th</sup> Five Year Plan (“12.5”) period starting in 2010 and recently under the 13<sup>th</sup> Five Year Plan (“13.5”), regarding pharmaceuticals—in particular, the revamping of China's drug distribution system.

Pharmaceuticals distribution is the largest sector in the medical market, and to reshape it is a significant challenge that can be said to have cut right into the core of the country's healthcare system.

As public hospitals are the major provider of China's healthcare services, treatment fees have long remained at low levels, and hospitals have been allowed to supplement their revenue with profits from sales of medicines. This led to a state of “以藥養医” (supporting hospital management with drug sales), where hospitals permanently overprescribe medications in order to increase profits, which in turn have pushed up patients' medical bills and directly put strain on the financial base of the public medical insurance system.

With the rapidly aging population, China is faced with the urgent task of cutting medical expenses, and further upgrading the quality of public services is also an imperative for maintaining social stability, which means that the Chinese government must push through both reforms—medical spending cuts and quality improvement—at the same time, as if rolling a two-wheeled cart.

The government is doing just that with ongoing reform regarding pharmaceuticals. A string of drastic measures have been introduced, mainly in the closely interrelated areas of (1) reducing drug prices and cutting costs, (2) securing quality, and (3) restructuring hospital management (Fig. 1). This article will outline the current state of China's pharmaceuticals distribution system reform, with focus on the areas of (1) above.

Figure 1: Recent reforms regarding pharmaceuticals

	Item	Outline	Principal policy documents
<b>Lowering drug prices, cutting costs</b>			
(1)	Abolition of drug price markups	Prohibiting hospitals from selling drugs at a profit	关于印发推进医疗服务价格改革意见的通知（发改价格〔2016〕1431号）
(2)	Packaged (case-based) pricing of drugs and medical service fees	Charging inpatients of certain diseases a fixed-price, packaged fees covering all medical services involved	关于推进按病种收费工作的通知（发改价格〔2017〕68号）
(3)	Two-invoice system	Allowing only two invoices to be issued between a manufacturer and a hospital	关于在公立医疗机构药品采购推行“两票制”的实施意见（国医改办发〔2016〕4号）
(4)	Promotion of centralized procurement systems	Assembling drug purchase orders from all public hospitals in a region and making a single centralized purchase online	关于完善公立医院药品集中采购工作的指导意见（国办发〔2015〕7号） 关于落实完善公立医院药品集中采购工作指导意见的通知（国办发〔2015〕7号）
(5)	National drug price negotiations	Having the government negotiate directly with the manufacturers of mostly imported expensive drugs and setting a uniform price	关于做好国家谈判药品集中采购的通知（国卫药政发〔2016〕19号）
<b>Securing quality</b>			
(6)	Consistency evaluation	Using an appraisal system to verify if the composition and efficacy of a generic drug matches that of the branded drug, having approved generics preferentially purchased in centralized procurements for public hospitals	关于开展仿制药质量和疗效一致性评价的意见（国办发〔2016〕8号） 关于改革完善仿制药供应保障及使用政策的意见（国办发〔2018〕20号）
(7)	Priority assessment	Using fast-track assessment for seven drugs for domestic sales permission	关于鼓励药品创新实行优先审评审批的意见（食药监药化管〔2017〕126号）
(8)	Lowering import tariffs on drugs	Reducing import tariffs on anti-cancer and other selected drugs	Implemented in May 2018
<b>Restructuring hospital management and revenue bases</b>			
(9)	Promoting tiered medical service systems and medical alliances	Establishing basic-layer hospitals as patients' first entry points/home doctors and building an alliance system for transferring severe patients to higher-level hospitals	关于推进分级诊疗制度建设的指导意见（国办发〔2015〕70号）
(10)	Raising medical service fees	Raising fees for medical services	关于印发推进医疗服务价格改革意见的通知（发改价格〔2016〕1431号）
(11)	Encouraging private capital investment	Encouraging private-sector entry into the hospital business and private capital participation in public hospitals	关于促进社会办医加快发展的若干政策措施（国办发〔2015〕45号）

Source: Compiled by the Global Strategic Advisory Department of Mizuho Bank, Ltd. based on data from Chinese government websites

## 1. Reforms regarding drug price reduction and cost cuts

Reform policies aimed at reducing drug prices can be subdivided into those targeting hospitals as end retailers and those directed at intermediary distributors (wholesalers). Policies implemented in the first category include zero markups for drug prices and the packaged pricing of drugs and medical service fees, while those in practice in the second category include the two-invoice system, the centralized procurement system, and national drug price negotiations.

### 1.1 Distribution reform targeting hospitals

#### 1.1.1 Abolishing drug price markups

For many years, hospitals had been allowed to sell drugs at a profit as a means to finance their operations. The markup rate was first capped at 15% in 2006, gradually lowered starting in 2011, and eventually reached zero at all public hospitals across China in 2017, which is said to have lessened national burden by a total of RMB 60 billion–70 billion.

Needless to say, this was a drastic measure designed to end the hospitals' continual reliance on income from drug sales, thanks to which the share of drug sales in hospital revenue (药占比, in Chinese) was reduced from around 50% the national average in the last pre-reform year of 2008 down to 39% as of 2016. The loss of this income source, however, has pushed the already loss-making public hospitals further into the red, turning their dispensary into complete cost centers. In response, some hospitals are increasing external prescriptions, while others are separating the pharmacy department from hospital management and outsourcing the entire function, including the payroll of physicians, to drug distributors. The outsourcing option, however, is seen as a contradicting model that



places pharmaceutical distributors (the very victims of drops in drug sales) behind the pharmacy counter and that possibly undermines efforts to fight overprescribing—and is already banned in Shanghai and other cities.<sup>1</sup>

In addition to coping directly with issues regarding pharmacy departments, hospitals must also work to restructure their management systems from the ground up, by addressing challenges such as raising clinical service fees, creating new client bases through differentiation, and rectifying high-cost structures, among others.

### 1.1.2 Packaged (case-based) pricing of medical service fees

This payment scheme, called “按病种付费” in Chinese, sets a fixed price for an entire medical service package instead of the conventional fee-for-service method of adding up the costs for each element. The fixed price includes all examinations, operations, medications, and other medical services offered during a hospitalization period—this means that any extra costs arising from overprescribing or excessive testing would be borne by the hospital. It is hoped that this scheme will motivate hospitals toward achieving adequate quality and quantity regarding prescriptions and treatment.

The policy kicked off in 2017 with a list released by the National Development and Reform Commission of 320 target diseases, followed by another list of 120 diseases including cardiac infarction, cataracts, tuberculosis, shingles, and esophageal cancer, among others, published by the Ministry of Human Resources and Social Security, the governing agency for health insurance.<sup>2</sup> In actual implementation, each local government is responsible for compiling its own list of diseases (minimum of 100 diseases) and price list based on regional needs and situations, with consideration of the above lists. Local lists are now being published (Fig. 2).

Figure 2: Packaged prices in Zhejiang Province (selected)

Disease	Packaged fee
Senile cataracts	RMB 6,600
Chronic subdural hemorrhages	RMB 33,400
Esophageal cancers	RMB 74,200
Mammary gland cancers	RMB 28,100

Source: Compiled by the Global Strategic Advisory Department of Mizuho Bank, Ltd., based on data from Chinese government websites

## 1.2 Reform targeting pharmaceutical distributors

### 1.2.1 Two-invoice system

Of the policies targeting distributors, the two-invoice system (两票制) is probably the one that has the largest consequences for the industry. The policy, aiming to stop the snowballing of drug prices as products go through many layers of distributors, allows only two invoices (发票), as a rule, to be issued between a manufacturer and a hospital. Local governments have announced measures and have begun implementation—in Beijing in October

<sup>1</sup> “上海市卫生和计划生育委员会关于本市医疗机构进一步加强药事管理推动药学服务转型发展的通知” (June 2018)

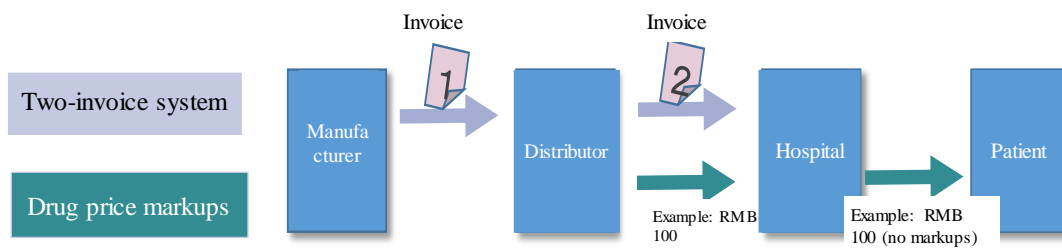
<sup>2</sup> “关于推进按病种收费工作的通知” (发改价格 [2017]68 号) and “人力资源社会保障部办公厅关于发布医疗保险按病种付费病种推荐目录的通知” (人社厅函[2018]40 号)



2017, Shanghai in June 2017, and Guangdong Province in December 2017. The system that permits only one mediator per channel (Fig. 3) is working in favor of large-scale distributors with extensive networks, causing smaller players to leave and accelerating consolidation in the industry. Larger firms are also forced to restructure their business model, such as by bringing back in-house what they might have been outsourcing (e.g., logistics, downstream sales, etc.), and rushing to undertake new investments and M&As in order to expand their business operations.

Foreign companies are no exception in having to deal with this environment shift. In 2017, U.S.-based Cardinal Health sold its China drug distribution business to Shanghai Pharmaceuticals—the third largest in the domestic market—for USD 557 million. Cardinal had ranked ninth in China’s pharmaceutical distribution industry as a single entity but decided, in view of the changing landscape, to focus on other business interests. However, leaving is not the only option; in September 2018 Britain’s Alliance Boots announced its plan to buy a 12% stake in Nanjing Pharmaceuticals—the eighth largest in the domestic market—to boost its business in China.

Figure 3: Two-invoice system and the abolition of drug price markups



Source: Compiled by the Global Strategic Advisory Department of Mizuho Bank, Ltd.

### 1.2.2 Centralized procurement system

Since before the reform, the purchase of equipment for governmental organizations and devices/medicines for public hospitals had been made through public purchase (tender, etc.) using each local authority’s procurement platform. This will be pushed forward in the 13<sup>th</sup> Five Year Period with the newly introduced Centralized Procurement System, under which public medical institutions in a region put their orders for a medicine or medical consumables together into a single, centralized purchase order.<sup>3</sup>

The system is designed to: reduce cost by placing bulk orders; wipe out collusion between doctors and distributors; and enhance the transparency of the distribution process. In reality, however, some problems are occurring, such as: manufacturers sacrificing the quality of products to offer impossibly low prices; winners of a bid failing to deliver; or a good, quality medicine losing in a tender and not reaching hospitals because it couldn’t be discounted below its worth. In addition, it has been pointed out that there are many cases where several companies are selected as winners in a tender, causing a post-tender competition of sales promotion and further discounts.

The government, while addressing these problems by requesting bidders to make various pledges in writing, is

<sup>3</sup> “国务院关于印发“十三五”深化医药卫生体制改革规划的通知” (国发[2016]78 号)

unswervingly determined to hold onto the cost-cutting policy and will likely push it further, concurrently with other policies such as promoting the use of generic drugs (mentioned later).

### 1.2.3 National drug price negotiations

National drug price negotiation is a policy that potentially has huge impact on foreign companies, although it is relevant to a limited number of items.

Under the scheme, the central government makes a list of drug items that are highly priced in the market for reasons such as that they are mainly imported and cannot be easily substituted by domestic products, and the government itself negotiates directly with each manufacturer to set a uniform national price. The first round of negotiations was held in 2016 for three drugs, including anti-HIV agents, followed by one in 2017 targeting 36 drugs and another in 2018 for a total of 17 anti-cancer drugs,<sup>4</sup> with each round achieving a 40–60% reduction from previous prices for many drugs and making the listed items—now on the public medical insurance scheme’s list of eligible medicines for reimbursement—affordable to the Chinese people.<sup>5</sup>

Aside from drugs, in September 2017, the government announced its plan to initiate national price negotiations for medical equipment (expensive consumables) starting with four items, including coronary artery stents, artificial joints, and implantable cardioverter defibrillators,<sup>6</sup> and possibly for a wider range of items in the future.

## 2 Widespread impacts of “distribution reform”

As discussed above, the ongoing drug distribution reform is affecting not only distributors but also hospitals, manufacturers, and other parties involved, causing problems for all.

The items under “Securing drug quality” and “Restructuring hospital management” in Fig. 1 are not irrelevant to distribution.

Take “Consistency evaluation” (Fig. 1 (6)), for example, which is an approval system for checking that a generic drug has the same composition and efficacy as its already-marketed brand-name version. The system obviously affects manufacturers, but once approved, generic drugs with a “quality stamp” will enjoy a range of privileges in the form of preferential use at public hospitals, qualification to participate in a tender in the same group as branded drugs, and various other locally selected schemes,<sup>7</sup> so it is not hard to imagine that the presence of generic drugs will grow in the market involving basic-level medical institutions.

“Raising medical service fees” (Fig. 1 (10)) is an effort to supplement the loss of hospital revenues resulting from the zero markup of drug prices by raising fees for professional services provided by doctors and nurses. However,

<sup>4</sup> First round “国家卫生计生委办公厅关于公布国家药品价格谈判结果的通知” (国卫办药政函 [2016]515 号), second round “关于做好 36 种谈判药品集中采购的通知” (国卫办药政函[2017]856 号), third round “关于将 17 种抗癌药纳入国家基本医疗保险、工伤保险和生育保险药品目录乙类范围的通知” (医保发[2018]17 号)

<sup>5</sup> “关于做好国家谈判药品集中采购的通知” (国卫药政发[2016]19 号)

<sup>6</sup> “关于开展国家高值医用耗材价格谈判企业申报工作的通知” (国卫药政综合函[2017]97 号)

<sup>7</sup> Policies are being announced across the country, including Jiangsu Province, Shanghai Municipality, Zhejiang Province, and Shenzhen Municipality.

this has not been bringing in enough money to fill the gap, as people's burden cannot be so easily increased. Fees per treatment have so far gone up by a mere RMB 10 or slightly more. To tackle this problem, Guangdong Province set a principle that "80% of a hospital's income loss should be covered by government subsidy, 10% by increased medical service fees, and the remaining 10% through management efforts."<sup>8</sup> The central government, rather than letting up on the reform, is set to gear up its support to the hospitals in this transition period, as seen in its 2018 policies to evaluate the progress of hospital reform across the country and to provide subsidies according to achievement.

Thanks to the development of a tiered medical services scheme (Fig. 1 (9)), basic-level medical institutions are suddenly flooded with patients,<sup>9</sup> while tertiary-level hospitals, where overcrowding had become a social problem, are seeing less outpatient visits. Higher-tier hospitals are showing a trend toward downsizing outpatient services, which, if combined with accelerated efforts to establish basic-level hospitals as the first points of entry for all outpatients, would bring a notable change in the market by way of a growing drug market for basic-level institutions.

To sum up, the reform around pharmaceutical distribution is progressing like a huge wave of interrelated policy measures (Fig. 4) that is bringing on-the-ground changes to hospitals and to all aspects of medical care.

Amid this wave of change, drug distributors are adopting a variety of strategies to cope with the changing market environment. Even the large Chinese firms boasting commanding shares in the domestic market are hurrying to boost their competitiveness and broaden business portfolios, and are increasingly seeking cooperation with foreign companies. For Japanese companies, this means greater opportunities to forge alliances with Chinese firms, and some are already working with China's leading pharma businesses for collaboration or to set up joint ventures; for example, Itochu Corporation with Jointown Pharmaceutical Group, Mitsubishi Corporation with Sinopharm Group, and Marubeni with Fosun Pharma. While hopes are high that Japan-side know-how and products will prove useful in the Chinese market, Chinese products are steadily improving both in terms of quality and technology, which means that Japanese companies will need to thoroughly consider in advance which of their products will appeal to the Chinese market.

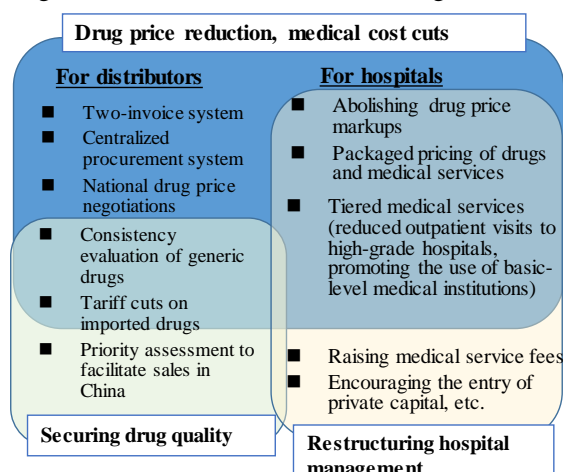
It is important to understand in full that the Chinese healthcare market, which is attracting attention around the world for its rapid growth and size, is now in the midst of a drastic change.

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<sup>8</sup> "广东省公立医院取消药品加成财政专项补偿方案" (Guangdong Province Department of Finance, July 2017)

<sup>9</sup> Tiered medical services is a scheme aimed at reducing overcrowding at large-scale tertiary-level hospitals and at establishing basic-level medical institutions (public medical institutions at the district level) as the contact point for first-visit outpatients and everyday disease cases, while also transferring severe patients to higher-level hospitals. In order to attract patients to basic-level medical institutions, medical insurance coverage ratios have been raised and the list of covered medicines has been expanded (to match that of tertiary-level hospitals), and this is proving successful.

Figure 4: Policies related to and affecting one another



Source: Compiled by the Global Strategic Advisory Department of Mizuho Bank, Ltd.

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