Working Paper Series
Congressional Budget Office
Washington, DC

China's Approach to Capital Flows Since 1978

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April 2008
2008-02

 The author thanks Adam Weber for his valuable research assistance, and Bob Dennis, John Peterson, Kim Kowalewski, Doug Hamilton, Bruce Arnold, and Joseph Kile for their helpful comments.

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Abstract

Since China began its pro-market reform in 1978, its management of capital flows has followed a cautious learning-by-doing approach, guided by the goal of propelling strong economic growth while minimizing risk to stability. Claiming that the country's financial infrastructure is still not ready to deal with large swings of financial flows, China has frequently fine-tuned restrictions of portfolio flows but generally kept a tight rein of those flows. Meanwhile, promoting foreign direct investment (FDI) inflows (and outflows in recent years)—with the aim of accessing foreign management know-how, technologies, raw material, and markets for exports—has been an important element of China's development strategy.

There is some evidence that China's approach of encouraging FDI in strategic locations and sectors while restricting portfolio flows has contributed to its high growth rates since 1994. But that approach also has some problematic legacies. China's FDI policies may have exacerbated a pattern of unbalanced growth between rural and urban areas and rising income inequality. China's gradualist approach toward capital-account liberalization also has retarded the development of an efficient domestic financial market and well-functioning foreign exchange market, which need to be in place for the smooth functioning of a flexible exchange rate system.

China's Approach to Capital Flows Since 1978

1. Introduction

China began finding its way cautiously toward pro-market reforms and opening its economy in late 1978. Its management of capital flows has followed a learning-by-doing approach, guided by the goal of propelling and sustaining economic growth and development while minimizing risk to economic (and political) stability.

The government has frequently fine-tuned but generally kept a tight rein on private portfolio flows, claiming that China's financial infrastructure is still not ready to deal with large swings of those flows. During periods when capital flight was a more serious threat, controls over outflows tended to tighten while those over inflows became more relaxed. In contrast, when inflows (betting on an appreciation of the yuan or prices of financial assets in China) became more problematic, controls over them tended to become more restrictive. In recent years, China has also lowered barriers on portfolio outflows as a way to help ease the pressure of the rapid rise in its balance of payments.

Promoting foreign direct investment (FDI) inflows has remained an important element of China's development strategy since the (post-1978) reform era began. In the early years of the reform era, China had small foreign exchange (FX) reserves and was far behind technologically. Against that backdrop, attracting FDI inflows was viewed as a way to jump-start China's economic growth. Nevertheless, initiatives to promote those inflows were timid and tentative at first, and FDI was allowed only in special economic zones. Since 2004, China's policymakers—enabled by its large holdings of FX reserves—have also permitted outward FDI to rise rapidly. Both inward and

outward FDI deals appear to have aimed at accessing foreign technologies, management skills, and export markets. It appears that outward FDI deals also have given an added emphasis to securing raw materials which are critical to the sustainability of China's rapid growth.

There is some evidence that China's approach to capital flows has contributed to its economy's high growth rates since 1994. Some studies—but not all—have found that the rapid rise in FDI inflows has made an important contribution to China's growth.[1] Most analysts agree that the government's control over portfolio flows shielded its economy from the 1997-1998 Asian crisis, when many of its neighboring economies were buffeted by large swings in foreign capital flows. Some analysts also argue that China's ability to sustain its currency-peg regime since 1994, which was underpinned by its tight controls of portfolio flows, played an important role in maintaining China's price stability and economic growth, though other analysts have partly blamed the currency peg for the sharp rise in recent inflation.[2] Up to 1994, China was afflicted by cycles of boom and bust (Figure 1). After it consolidated the official exchange rate and the swap rate and fixed the exchange rate at the lower swap rate in 1994, price inflation was brought down to 3 percent in 1997 (from over 20 percent in 1994), and the devastating cycles of boom and bust have not yet resurfaced.[3] From

[1] For example, see Whalley and Xin (2006) and Wei (1993).

[2] For example, McKinnon (2007) argues that, given that China's financial market is not ready to support "normal" operations of monetary policies to allow the central bank to control inflation and that the Fed has proved to be credible in keeping U.S. inflation under control, China's policy of pegging its currency to the dollar fixed exchange rate allows it to eliminate inflation expectations, thereby keeping price stability and fostering an environment conducive to investment and growth.

[3] Before 1994, the swap rate was allowed to float, forming a platform for a market mechanism. See Section 3.1 for more detail.

1996 to 2007, China's annual real gross domestic product (GDP) growth rates averaged 9.2 percent, while consumer price inflation averaged about 1.9 percent.

Nevertheless, China's approach to capital flows appears to also have some problematic legacies. Its approach to encouraging FDI in selected industries and in limited geographical areas, combined with its restrictions on labor mobility, may have contributed to an unbalanced growth pattern that is partially responsible for the sharp rise in income inequality between the urban and rural residents. The sharp rise in China's net exports, which to a large extent reflects exports of foreign-invested enterprises, may have also added to the international community's criticism of China's currency policies.

China's controls over portfolio flows and its inflexible exchange rate system also face mounting challenges: The sharp rise in its trade surplus and large net FDI inflows may have fueled China's overheating economy in recent years, causing troubling upward pressures on asset-price inflation. Domestic stock markets has been prone to rampant speculation in part because domestic stocks available for public trading are limited while private portfolio outflows have been restricted. Since 2005, China has rapidly relaxed controls over portfolio outflows as part of its efforts to cool down its overheating economy and to relieve the upward pressure on its exchange rate. However, in part because most investors are still betting that the yuan—which has been allowed to appreciate only tiny increments each day until lately—will continue to rise against the dollar, such partial liberalization of capital controls has not yet succeeded in

cooling the Chinese economy.[4] Moreover, as international pressure for a more flexible yuan grows, the downside of China's past tight controls of portfolio flows has also grown more obvious. Those tight controls helped to insulate China's financial markets from destabilizing swings of capital flows, but they have also retarded the development of China's FX infrastructure (i.e., the development of sufficient numbers of market makers and instruments for hedging currency risks, such as forward contracts and derivatives), which needs to be in place for the smooth functioning of a flexible exchange rate system.

2. Foreign Direct Investment

This section looks into the role of the Chinese government, among other factors, in propelling the rapid rise of FDI inflows over the past two decades. It then discusses the impact of those inflows on the Chinese economy. Finally, it discusses the surge in China's FDI outflows since 2003.

2. 1. The Government's Policies Toward Foreign Direct Investment (FDI) Inflows

China opened up to inward FDI in a cautious and experimental manner. In the earlier years of the reform era, changes were slow and laws and regulations remained rather restrictive. Pro-market reforms and policies toward FDI inflows were first

[4] To relieve the rising pressure on the yuan to appreciate, the People's Bank of China announced a change in the exchange rate regime on July 21, 2005, replacing the yuan's de facto peg to the U.S. dollar by a crawling-peg regime, which uses a basket of currencies as a "reference" for the central parity that will be announced at the end of each previous trading day. The yuan was allowed to appreciate or depreciate a maximum of 0.3 percent each day from that parity. On May 21, 2007, that band was widened to 0.5 percent. In practice, the movement of the yuan has been within a much narrower band than officially allowed, even though the yuan's appreciation against the dollar has quickened since early 2007. (The yuan appreciated 7.5 percent against the dollar over the 12 months since January 2007, more than double the 3.6 percent rise over the 12 months since January 2006.)

experimented with in four special economic zones (SEZs) in 1980.[5] In 1984, those experiments were expanded to another 14 open coastal cities (OCCs); and generous tax incentives were set up in both SEZs and OCCs with the goal of attracting FDI that would bring along advanced technology. For example, in the first two years that a foreign-invested enterprise (FIE) in those special economic zones or cities made a profit, it was exempt from corporate income tax.[6] In subsequent years, the same FIEs would be subject to an average corporate income tax of 15 percent, less than half the standard 33 percent paid by Chinese companies.[7] FDI inflows jumped 98 percent in 1984 and continued to grow at double digit rates for several years (Figure 2). Growth of FDI inflows began to fall in 1989, after the government's harsh suppression of the Tiananmen Square protest, and was nearly nil in 1990. In response, the government began to take measures to reassure foreign investors. For example, a law was enacted in 1990 to prohibit the state from nationalizing joint ventures and simplify the procedures for new foreign investment. In 1991, the government eliminated a 10 percent tax imposed on distributed profits remitted abroad by FIEs. In 1992, Deng Xiaoping's speech during his tour of the south (of China) further reaffirmed China's

[5] Three of them (Shenzhen, Shantou, and Zhuhai) are in Guangdong Province; one of them (Xiamen) is in Fujian Province.

[6] FIEs are enterprises established in China by foreign investors using their own capital, including enterprises funded with capital from Hong Kong, Macao, and Taiwan (HMT). In China, any of a number of legal entities can be considered FIEs, including equity joint ventures, cooperative joint ventures, wholly owned foreign enterprises, and foreign-invested companies limited by shares. Though regarded as independent businesses, FIEs must receive government approval and can operate only in certain industries. To establish FIEs, foreign investors submit either their own investment proposals or choose ones previously submitted by Chinese companies, in which case the FIEs become joint ventures with Chinese partners.

[7] See Prasad and Wei (2005) and Tseng and Zebregs (2002). Tseng and Zebregs also discuss other factors that may have helped to attract FDI, such as market size; infrastructure; and the establishment of open economic zones, which have more liberal investment and trade regimes than other areas.

commitment to pro-market reforms, and FDI soared in 1992 and 1993 (Figures 2 and 3). When those inflows declined somewhat following the 1997-1998 Asian crisis, the government extended preferential treatment to FDI in energy, transportation, and infrastructure industries. The profit tax on FIEs in the western region was reduced in an attempt to promote development there.

After China's accession to World Trade Organization (WTO) in 2001, FDI inflows began to surge again. Since then, FDI flows from industrial countries have risen substantially, and they have mainly gone to the financial service sector. After 2002, foreign banks were allowed to buy equity of domestic banks, although the share of ownership could not exceed 20 percent for a single foreign investor or 25 percent for total foreign ownership. In addition, foreign banks were allowed to provide yuan service to domestic firms in open cities beginning in 2003. One aim of easing restrictions of foreign ownership of domestic banks was to improve their corporate governance and practices, thereby speeding up the development of the financial markets and institutions.

Clearly, the government's role in promoting FDI inflows was not limited to improving the legal framework to make China a more welcoming and credible environment for direct investment. It went further than that, with the passage of laws that offered a variety of preferential treatment to FIEs in strategically important industries and in selected cities or economic zones. Recognizing the long-term distorting effects of such a complex network of tax laws, and because domestic enterprises have stepped up their complaints against unfair tax treatment, the government enacted a new corporate income tax law (which took effect on January 1,

2008) that consolidated tax rates of both domestic enterprises and FIEs at 25 percent. But significant preferential tax treatment remains, as shown in Exhibit 1.

2.2. Market Drivers of FDI in China

Two factors—inexpensive labor and the potentially large market—are probably the most notable and most agreed-upon market forces that have attracted FDI into China.

Low labor costs have been especially important for attracting vertical investment (investment intended to take advantage of low-cost production for reexporting of its products abroad). In the early years of the reform era, FDI into China was mostly dominated by such export-oriented investment. That export-oriented FDI came mainly from other Asian economies that had pursued export-led growth but whose domestic labor had become too costly to compete with Chinese labor. In particular, Hong Kong and Taiwan, with their geographical proximity and cultural ties to China, became the prime source of such FDI inflows. In 1992, combined FDI from Hong Kong and Taiwan accounted about 78 percent of total inward FDI, with Hong Kong alone accounting for 68.2 percent (Table 1).[8]

Since the mid-1990s, however, the fact that Chinese consumers have grown wealthier has made the enormous market potential of China an increasingly more

[8] It should be noted that a portion of FDI inflows from Hong Kong are likely to be due to round-tripping (i.e., capital originating from China returning in disguise as FDI to take advantage of tax, tariff, and other benefits) and inflows that actually originated from other countries. Estimates of total round-tripping ranged from 7 percent of inflows in 1996 to almost 25 percent in 1992.

important factor in attracting FDI.[9] Thus, direct investments from North America and Western Europe, which are heavily tilted to horizontal investments (i.e., investments whose products are intended to service the Chinese domestic market), have grown more sizable.[10] After 2001, as China allowed foreign entry into its financial sector and banking industries (to comply with conditions of its accession to the WTO), direct investments from the United States and other OECD countries began to account for an increasingly larger share of total FDI inflows to China, as those countries' financial firms competed to get a foothold in the Chinese market. In 1992, FDI from the European Union, the United States, and Japan accounted for about 13 percent of total FDI in China; by 2006, that share rose to 26 percent (Table 1).[11]

In addition to low labor costs and the potential of a large market, some researchers suggest that the sharp rise in China's FDI inflows over the past decade may also have reflected deficiencies in China's domestic capital markets. Private firms in China have little access to external financing because most funds are funneled to state-owned enterprises. In particular, private firms have faced discrimination relative to state-owned enterprises, both from the banking system (in terms of loan decisions by

[9] The high prices American banks were willing to pay for a small share in China's state-owned banks (of questionable financial health) would seem irrational if those banks were not aiming to get a foothold in a rapidly expanding market earlier than their rivals.

[10] According to Whalley and Xin (2006), FIEs controlled by U.S. investors sold more than 80 percent of their products locally in 2002. In comparison, FDI inflows from Japan have been more balanced between vertical and horizontal investments, with about 45 percent of production for China's domestic market.

[11] The share of FDI inflows from major industrial countries, especially those from the United States, may be even higher in recent years if adjusted for their FDI channeled through tax havens such as the British Virgin Islands. FDI from the (British and U.S.) Virgin Islands accounted for 11.6 percent of total FDI into China in 2002; that share rose to 16.2 percent by 2006. Meanwhile, contrary to the impression one gets from financial news, the share of FDI from the United States had declined since it peaked at 10 percent in 2002, falling to a mere 4 percent by 2005 before recovering to 9 percent in 2006. Juxtaposing these two pictures suggests that some U.S. multinational corporations may have set up corporations in safe-haven locations to serve as a conduit for their direct investment in China.

state-owned banks) and the equity market (in terms of approval of stock listings.)[12] As a result, private firms may have taken advantage of pro-FDI policies and used foreign joint ventures as a way to acquire needed capital in order to undertake investment.[13] However, that phenomenon—to the extent it occurred—may have become considerably less important since 2001: Foreign capital financed only 4.2 percent of fixed investment from 2001 to 2006, down from over 8 percent during the 1990s (Table 2).

2.3. Effects of Inward FDI on China's Economy

China's post-reform economic growth has been propelled mainly by rapid growth in net exports, productivity growth, and investment.[14] FDI inflows have made important contributions to China's growth through their effect on net exports and productivity growth, even though they directly financed only about 6 percent of fixed investment from 1981 to 2006 (Table 2). Given the existence of various obstacles on labor mobility in China, however, the restrictions allowing FDI only in designated special zones (or cities), along with the special incentives given to FDI in higher-tech

[12] The banking system tends to make politically-motivated, rather than economic-motivated, loans to state-owned enterprises; state-owned enterprises are also more likely to obtain approval for equity-financing through the stock market.

[13] Related to this view is the Bretton-Wood II hypothesis, which maintains that the Chinese have rapidly accumulated foreign reserves in part to reduce foreign investors' reluctance of investing in a still high-risk environment.

[14] As pointed out by Prasad (2007), because of the high content of imported material in Chinese exports, net exports' direct contribution to China's nominal GDP growth (from the perspective of growth accounting) was not significant until after 2004, when China's trade surplus surged. However, the overall effect of net exports on growth should be much bigger than indicated by growth accounting because investment growth, which is stimulated in part by exports, is counted solely as a component of domestic demand growth in that accounting.

sectors with higher potential productivity growth, may have also contributed to rapidly rising income inequality in China.

Contribution to Net Exports. FIEs have become increasingly important contributors to the rise in China's net exports since 2000 (Figures 4a and 4b). From 2000 to 2005, FIEs' net exports share of China's total net exports surged from a mere 10 percent to 53 percent. (During that period, China's net exports rose from $24 billion to $102 billion.) That contribution to net exports, however, appears to have peaked in 2005, perhaps reflecting the rising importance of horizontal FDI (whose products are intended for the Chinese market).

FIEs' role as rising net exporters was not established until after 1998. They were still net importers in 1996 and 1997 (the only two years for which data are available), perhaps in part because of the high cost of imported capital goods needed in the initial stages of establishing a new enterprise.

FIEs may also have contributed to growth in net exports indirectly through technology spillover to local Chinese firms. This is suggested by the shift in the composition of China's overall exports toward higher-value products at a faster speed than the composition of FDI inflows. In the early 1990s, exports still mainly consisted of garments and other low-value manufactured goods. But since then, they are increasingly composed of higher-valued items, such as electronic goods. For example, from 1994 to 2006, the share of higher-end exports categorized as *machinery & transport equipment* surged from 18.1 percent of total exports to 47.1 percent, while the share of miscellaneous manufactures (mostly *apparel and clothing accessories* and *footwear*) fell from 41.3 percent to 24.6 percent (Table 4).

Contribution to Productivity Growth. Several studies have found that the rapid growth in total factor productivity (TFP) is a main pillar of China's real GDP growth in the reform era, second only to capital formation. For example, Kuijs and Wang (2006) found that capital accumulation contributed over 50 percent, and TFP growth about 33 percent, to China's output growth between 1978 and 2004, with employment growth contributing the modest remainder. Bosworth and Collins (2007) also have similar findings.

Some researchers argue that inward FDI has spurred TFP growth in China. Whalley and Xin (2006) suggest that inward FDI may have contributed to real GDP growth by as much as 3.9 percentage points annually in 2003 and 2004, about 41 percent of total GDP growth during that time. They further point out that this is mainly because labor productivity of FIEs (which employed only about 3.2 percent of the work force in those years) was about 9 times that of the non-FIE economy. Those findings, though they may appear shockingly high, do not seem to be outside the realm of likelihood in light of the sharp rise in the share of FIEs' contributions to the rise in China's overall value added. Even though the share of foreign investment in financing China's total fixed investment has stayed modest (around 6 percent), FIEs' share of value added in the industrial sector (i.e., the *manufacturing and mining* sector) soared from 11 percent in 1994 to 28 percent in 2004 (Figure 5).[15] Since the industrial sector accounted for about 47 percent of China's GDP in 2004, the contribution of industrial FIEs to GDP in that year amounted to about 13 percent (=0.28 * 0.47). But since FIEs in the industrial sector accounted for only 64 percent of all FIEs in China, that 13

[15] Because of capital controls, the vast majority of foreign investment is FDI.

percent is the lower bound of FIEs' total contribution to China's GDP in that year. If we assume that the contributions of FIEs to GDP are about the same across all industries to which they belong, then the contribution of all FIEs to GDP would have been higher, at about 20 percent (=0.13/0.64) in 2004. This is a significant increase from FIEs' contribution to GDP in 1996, which was about 13 percent based on similar imputations.[16]

FIEs may have boosted China's productivity growth in part because of the rapid rise in FDI in the IT (information technology), or *communication, computer, and other electronic equipment* sector. From 1997 to 2001, FDI in the IT sector rose from 5.9 percent to 15.1 percent of total inward FDI (Table 3). The rise of FDI in the IT sector, directly through FIEs' own output and indirectly through the effect of technology spillover from FIEs on the output of non-FIEs, caused the IT sector's value-added share in the industrial (i.e., *mining and manufacturing*) sector to rise rapidly from the 1997 through 2003 (Figure 6). The stable share of the industrial sector in China's GDP (around 45 percent) in turn implies that FIEs contributed significantly to China's growth during that time (Figure 7).

Contribution to Unbalanced Growth. The government's policy toward FDI inflows in high-tech industries and only in SEZs and selected cities, however, may have contributed to an unbalanced growth that is now threatening the stability and sustainability of China's future growth. About 84 percent of FDI in China is located in suburban/urban areas of nine provinces in recent years, with the other 20 provinces

[16] Data on the share of industrial FIEs in total FIEs are not available before 1996. That share was 58 percent in 1996.

with vast rural lands sharing the remaining share.[17] Given the existence of various obstacles restricting labor mobility and the faster growth of the FIE subeconomy than the non-FIE economy, the high concentration of FDI in urban areas has contributed to the high concentration of job creation in those areas. [18] That uneven distribution of job creation in turn has contributed to the rapidly rising income inequality in China.

Income inequality in China has grown rapidly even as the country's GDP per capita has grown faster than that of industrial economies, such as the United States, as well as other emerging-market economies, such as India (Table 5). According to official data, annual per capita income of urban dwellers rose more than sixfold from 1985 ($250) to 2006 ($1,600); in contrast, per capita income of rural dwellers during that period rose only threefold, from about $200 to $600 (Figure 8). Since a potentially large number of rural people may not be counted in official data because of the one-child policy, that gap could be even larger than the official data indicate. However, unbalanced growth between urban and rural areas and rising inequality are hallmarks of countries undergoing rapid development, so the precise role of FDI policy is hard to determine.

[17] See Whalley and Xin (2006).

[18] Labor movements have continued to be restricted by the household registration (hukou) system, even though some reforms to that system have been initiated since the mid-1990s. Migrant workers who could not obtain household registration are considered illegal immigrants, deprived of social benefits—such as police protection and public education for their children. Consequently, China's employment growth mainly occurred in cities, with little growth in rural areas. Even though firms in the booming cities are facing a labor shortage, they cannot easily tap the surplus labor from rural areas or other cities. See Whalley and Zhang (2004).

2.4. Outward FDI

China's FDI outflows remained relatively insignificant for most the post-1978 reform era (Figure 3). However, as China's rapidly growing FX reserves began to put increasing upward pressure on the Chinese exchange rate and asset prices in 2004, the country's policy on FDI outflows shifted toward a more liberal regime, and those outflows began to surge.[19] That shift was partly aimed at reducing the extent to which its currency needed to appreciate and the urgency of that appreciation. The shift occurred when ensuring a steady supply of raw materials to sustain China's rapid economic catch-up had become more urgent than ever, and after China had acquired enough FX reserves to afford direct investment abroad.

China's approach to outward FDI, like its approach to inward FDI, is closely tied to its strategy of accelerating its economic development through accessing foreign technology and management skills, export markets, and raw materials. For now, however, ensuring a steady supply of raw materials appears to have topped other objectives.[20] For example, from 2003 to 2006, the lion's share of China's outward FDI (36 percent) went into the *mining* sector (Table 6). The two other major sectors that also received large shares of China's outward FDI were those important in facilitating sales of Chinese products in their overseas markets as well in transmitting marketing and logistical skills to Chinese firms at home. From 2003 to 2006, on average, the

[19] For example, in 2005 some domestic firms were allowed to set up corporations abroad to facilitate overseas listing, mergers, and acquisitions.

[20] China's strong demand for raw material in the past several years has been cited as a major factor behind the rapid rise in prices of commodities such as petroleum, natural gas, iron ore, and copper, etc.

transport, storage, and postal service sector received 8 percent of total FDI outflows, while the *leasing and commercial services* sector received 22 percent.

The impression one gets from the press—that China's foreign direct investments have concentrated heavily in strategic sectors in Africa and in Latin America—turns out to be unsupported by the data. Indeed, other Asian countries have persisted as the largest recipients of China's FDI outflows, followed by Latin America at a distance. Even though it appears that Latin America has overtaken Asia as the largest recipient of those outflows after 2004, that picture is misleading because the Cayman Islands—a popular tax haven—accounted for over 80 percent of China's outward FDI received by the region (Table 7).[21] Indeed, assuming for illustration purposes that all China's FDI in the Cayman Islands eventually went somewhere other than either Asia or Latin America (i.e., North America, Europe, or Africa), the share of China's FDI in Latin America (excluding the Cayman Islands) would have been only 4 percent in 2006, considerably below the share in Asia, which was 44 percent that year.

Despite the flurry of news about China's overseas investment, China's FDI outflows are still dwarfed by its FDI inflows or portfolio outflows. Even after a couple of years of sharp growth, China's FDI outflows reached only $18 billion by 2006, just a fraction of its FDI inflows ($78 billion) or portfolio outflows ($110 billion) in that year. That portfolio outflows were much larger than FDI outflows seems to confirm a

[21] The Cayman Islands is a popular tax haven because there are no income taxes, capital gains taxes, profits taxes, or estate taxes there. Its laws also allow companies to be formed with a minimum of paperwork. Thus, business transactions could be easily routed through the Cayman Islands to take advantage of the favorable tax laws. For example, a company in country X, which ultimately sells to U.S. department stores, might first sell its products to a Cayman subsidiary, which then resells those products to U.S. stores. The effect is to "book" the sale in the Caymans—with a zero tax rate— rather than in country X, with its high corporate tax rate. A wealthy individual subject to high income and estate taxes in his own country could also unload his ownership of wealth to corporations or trusts set up in the Cayman Islands to avoid those taxes.

report by *The Economist* that Chinese firms are less keen on acquiring a majority stake in foreign companies than on trying to gain experience (in management skills, industry-specific technology, and other know-how, etc.) by taking minority stakes in them.[22]

3. Portfolio Investment

The Chinese government's control over portfolio flows has been closely intertwined with its exchange rate policies, evolving roughly along a learning-by-doing approach.[23] Maintaining exchange rate stability has been one of several aims of China's capital-control measures. The authorities state that they will not consider allowing the yuan to float freely until they feel that they are ready for full capital-account liberalization. Instead, China has resorted to fine-tuning its controls over portfolio flows to maintain the stability of its exchange rate and its economy since the beginning of the reform era. But that approach is now facing many challenges.

3.1. The Evolution of China's Control over Portfolio Flows

The Chinese authorities have frequently adjusted the exchange rate and capital-control arrangements since the late 1970s, aiming to find the system that would facilitate the country's economic growth and development with minimum risk to economic and political stability. In the initial years, the yuan was substantially overvalued, and China began running a current-account deficit in 1985. The authorities

[22] See "Trojan Dragons," *The Economist*, November 1, 2007.

[23] For example, Zhao (2006) notes that, "In mid-1978 the China Communist Party … established a philosophy that 'Practice is the sole criterion to test truth. . . .' Following this philosophy, . . . [China's] external liberalization has been experimental and gradual, making it evolutionary rather than revolutionary."

were forced to devalue the yuan several times for the first two decades of the reform era (Figure 9). The exchange rate system changed from a centrally planned administrative mechanism to a dual exchange rate system, then to a managed float with a narrow band, followed by a de facto peg to the U.S. dollar, and finally to a managed float with slightly widened band. Along the way, the authorities revised capital-control measures several times, aiming to stem capital flight at some times and block inflows at other times, to support the stability of those exchange rate regimes.

Overall, the evolution of China's capital-controls can be roughly broken into seven phases:

(1) 1978-1985: China cautiously opened up to capital inflows. In December 1978, the Chinese government initiated economic reform and started opening up to the rest of the world. The aim of those policies was to jump start the economy by tapping foreign capital to fund investment and attracting foreign technology to promote export growth and import substitution. The exchange rate system was supposed to facilitate those goals in an economic system that kept central planning at the core while allowing market mechanism to function at the margin.

Finding the "equilibrium" exchange rate of the yuan without the help of a well-functioning FX market turned out to be difficult. In 1981, China introduced a dual exchange rate system: an internal settlement (2.8 yuan/dollar) rate for authorized current-account transactions and an official rate for other transactions (1.5 yuan/dollar). The dual exchange rate system was intended to boost foreign exchange reserves, which stood at $2.3 billion in 1980. Domestic enterprises had to surrender foreign exchange earnings to the state and received yuan at the official exchange rate. Depending on the

source of the exchange earnings, they could also receive a share of the surrendered foreign exchange as "retention quotas."

The official rate proved to be unsustainably high and was gradually devalued. On January 1, 1985, the official rate was eventually unified with the settlement rate at 2.8 yuan/dollar. All transactions were to be settled at the official rate, and the settlement rate was discontinued. However, judging from the continuing decline of China's current account balance (to -3.7 percent of GDP in 1985), the yuan was still overvalued even at the consolidated rate (Figure 9). Subsequently, the official rate fell to 3.72 yuan/dollar by the end of 1986, a depreciation of 25 percent from its value in early 1985.

(2) 1986-1991: Capital controls were first eased but then retightened. In 1986, China reintroduced a dual exchange rate system in 1986, and swaps centers (formally, Foreign Exchange Adjustment Centers) were established in some cities. Foreign-invested enterprises and Chinese enterprises with retention quotas (of foreign exchange) were permitted to trade foreign exchange among themselves at a rate different from the official rate in those swap centers. All domestic banks were also allowed to conduct foreign exchange business.

By 1988, most cities had established foreign exchange swap centers. The trading volume in swap centers steadily increased, and more firms were allowed to trade in the swap market. As the swap rates continued to decline, the fixed official rate was under increasing downward pressure. The authorities managed to keep the official rate at 3.72 yuan/dollar for nearly three years but finally gave in and, in December 1989, began a sequence of devaluating the yuan. The official rate subsequently fell to

5.22 yuan/dollar by March 1991. In April 1991, the official exchange rate regime was changed from a periodical adjustment to a managed float, allowing the authorities to adjust the rate even more frequently.

The swap market rates generated market distortions and became problematic in the late 1980s and early 1990s. (China had one official foreign exchange rate and often many market exchange rates because of imperfect arbitrage between swap centers.) Against this backdrop, rules and regulations were introduced to strengthen the supervision of external transactions. For example:

- All receipts of foreign-invested enterprises in foreign currencies were to be deposited in domestic banks, and all expenditures in foreign currencies were to be paid from those accounts.
- A domestic enterprise could invest overseas with its own foreign exchange earnings, and the State Administration of Foreign Exchange (SAFE) had to examine the source of its foreign exchange earnings. The investing enterprise had to deposit 5 percent of the investment in a special account of a bank designated by SAFE. The profits and other foreign exchange earnings were supposed to be repatriated home and surrendered to the state.
- A ceiling was imposed on the outstanding short-term external debt of each financial institution.
- All firms conducting foreign trade were required to submit to SAFE a copy of their export contracts, customs declaration forms, and cash vouchers. SAFE could launch investigations and impose punishments on firms that failed to provide these documents verifying repatriation of exports proceeds.

(3) 1992-1993: Capital controls on inflows were eased following the Tiananmen Square suppression. After the growth of capital inflows ground to a halt following the harsh suppression of the Tiananmen Square protest, Deng Xiaoping called for an acceleration of reforms and an opening up during his famous “tour through the south” in early 1992. His view was soon endorsed by the Congress of the

Communist Party. The authorities officially accepted a market-based floating exchange regime and current-account convertibility as the ultimate goals of the exchange reform. Besides FDI inflows, China started exploring more channels to use foreign capital. In 1992, the B-share market was launched in Shenzhen and Shanghai, allowing domestic corporations to issue shares denominated foreign currencies, which only nonresidents were allowed to buy. In 1993, nonbank financial institutions were allowed to conduct business in foreign currencies.

However, accelerated liberalization in the external and financial sectors may have contributed to economic overheating in 1992 and 1993. Price inflation soared from about 5 percent in 1992 to 24 percent in 1994. The average annual growth rate of real GDP surged to 14 percent in 1992 and 1993 (Figure 2). The current-account balance swung from a surplus of $13.3 billion (3.1 percent of GDP) in 1991 to a deficit 11.9 billion (-1.8 percent of GDP) in 1993. The high inflation and a rapidly falling current account drove expectations of further depreciation of the yuan. The exchange rate in the swap market fell to over 10 yuan/dollar in mid 1993, before intervention by the People's Bank of China lifted it to 8.7 yuan/dollar at the end of 1993. (Meanwhile, the official rate remained at a much higher 5.8 yuan/dollar.) Against this backdrop, reforming the exchange rate regime became an urgent issue.

(4) 1994-1996: Controls on inflows were tightened, while controls on outflows eased, to support the new exchange rate regime and combat inflation. On January 1, 1994, the official and swap market exchange rates were unified at the prevailing swap market exchange rate (8.7 yuan/dollar). The unified exchange rate regime was a managed floating rate with a narrow band (+/- 0.25 percent) in each

trading day. The China Foreign Exchange Trade System (CFETS) became operational, creating an integrated system of foreign exchange trading centralized in Shanghai. The swap centers in the old regime became branches of the Shanghai market. A two-tier trading system was established. Firms traded foreign exchange with banks. Banks traded their net foreign exchange position in CFETS. As exchange rate flexibility increased, foreign exchange designated banks were allowed to offer yuan forward products for firms to hedge exchange risk.

Firms were no longer allowed to retain foreign exchange for current-account transactions. They had to surrender their foreign exchange earnings from such transactions at the official rate and purchase foreign exchange when a payment in foreign currency was needed. Foreign exchange proceeds from capital-account transactions could not be converted into renminbi (RMB, or yuan), unless approved by SAFE.

After those policy changes, credit growth cooled and inflation moderated. The current-account deficit turned into a surplus by 1994, and the yuan gradually appreciated to 8.45 by the end of 1994. However, the expectation of further appreciation of the yuan in turn induced large speculative capital inflows through loopholes and all sorts of schemes, partially offsetting the government efforts to contain the overheating.

In response, measures were taken to relax restrictions on capital outflows and to enhance controls over inflows. Except for FDI, all financial-account transactions were to be approved by SAFE case by case.

(5) 1997-2000: Controls on outflows were tightened, while restrictions on inflows eased in the aftermath of the Asian crisis. Capital outflows became an increasing problem in late 1997 and early 1998, as the eruption of the Asian crisis in the summer of 1997 prompted concerns about the devaluation of the RMB. FDI inflows remained strong. But large portfolio outflows ensued, as foreign banks sharply reduced their exposure, causing the financial account to turn from a surplus of $21 billion in 1997 to a deficit of $6 billion in 1998 (Table 8). Illegal capital flight, which can be roughly estimated by *the errors and omissions* in the balance of payments account, rose sharply in 1997 and remained high in 1998 and 1999.[24]

To reduce illegal capital outflows and maintain a stable exchange rate, the authorities tightened the screening of capital-account transactions and imposed severe penalties, such as imprisonment, for fraudulent behavior. Meanwhile, controls of inflows were relaxed. Restrictions on extending external guarantees, issuing bonds in the international market, and FIEs' borrowing in yuan were relaxed.

The banking industry also began to open up to foreign investment. In 1997, 13 more cities were opened for foreign banks to conduct business in RMB, adding to the 5 open cities already in place. In 1999, the geographic restriction on foreign banks was repealed, though such restrictions on foreign banks' conducting business in the yuan remained. Moreover, foreign banks were allowed to invest in domestic banks, in hope

[24] The entry for errors and omissions in China's balance of payments accounting can be used to extract information on illicit portfolio financial flows. China's policy of allowing current-account convertibility but not financial-account convertibility (except for FDI inflows) suggests that the entry for errors and omissions—the gap between the change in foreign reserves and the combined balance of both the current account and the financial account—is mostly due to underreporting or overreporting of financial (rather than current-account) flows.

that this would improve domestic banks' corporate governance and promote sound practices.

During the Asian financial crisis, the trading band of ±0.25 percent was narrowed further. Even though the regime was still nominally a managed float, China had essentially operated it as a de facto peg to the dollar and the exchange rate was kept at 8.28 yuan/dollar until July 2005.

(6) 2001-2004: Portfolio inflows were eased following China's accession to the WTO. China's accession to the WTO in December 2001 marked a new stage for China's external liberalization. In addition to committing to tariff cuts, China has promised that a large number of key services—including important business services, courier services, wholesale trade, franchising, tourism services, rail and road transport, and freight forwarding services—will be fully or almost fully open to foreign entry by 2008. Substantial foreign entry will also be allowed in many other services—including in telecommunications, audiovisual services, construction, retail trade, insurance, banking, securities, and maritime transport.

Since then, China has made rapid progress toward opening up its financial sector to foreign investment. More cities were opened to foreign banks to conduct business in the RMB. In addition to the liberalization of direct investment by foreign banks, domestic investors have been allowed to invest in B-shares with self-owned foreign exchange earnings since 2001. Starting in 2002, qualified foreign institutional investors (QFII) have been allowed to invest in the domestic capital market (bond and stock markets). Consequently, from 2001 to 2004, portfolio inflows dwarfed outflows, contributing to upward pressure on the yuan exchange rate.

(7) 2005-Present: Portfolio outflows are encouraged to ease the upward pressure on the yuan. The Chinese government has long maintained that the yuan is not ready to float until the country's FX and financial markets are ready to manage the potentially large swings of portfolio flows. Therefore, instead of allowing the rapid rise in China's current-account surplus and net capital inflows to freely drive up the yuan exchange rate, the authorities began to lower barriers on capital outflows and tighten restrictions of portfolio inflows to help relieve that upward pressure on the yuan.[25] Since 2004, for example, the government has allowed multinational corporations operating in China more freedom to move funds in and out of the country, insurance companies to invest in foreign-currency-denominated assets overseas, social insurance funds to invest in overseas securities markets, qualified foreign institutions to issue RMB-denominated bonds in China, and emigrants as well as overseas citizens receiving inheritances to transfer their property abroad. In 2005, the first foreign company was listed on the Shanghai Stock Exchange. Corporations were allowed to keep all of their foreign exchange earnings in their own accounts, up from 80 percent previously. Since early 2006, qualified domestic institutional investors—basically local fund managers and banks—have been permitted to invest money offshore. Most recently (on December 17, 2007), the China Banking Regulatory Commission also announced that Chinese citizens would soon be able to buy shares and mutual funds in London and New York through their local banks.

[25] Since July 21, 2005, the yuan was also allowed to fluctuate within a band of 0.3 percent each day from the parity established the previous day. That band was widened to 0.5 percent since May 21, 2007.

Portfolio outflows began to surge after 2004, outgrowing the rise in inflows (Figures 10 and 11). In 2004, portfolio inflows still exceeded outflows by $20 billion; but by 2006, outflows exceeded inflows by $68 billion—amounting to a reversal of net capital inflows of $88 billion (Table 8). Using an alternative gauge of net portfolio inflows—which adjusts for the error-and-omission balance (shown in Table 8 as the *adjusted net portfolio inflows*), the reversal is an even greater $127 billion (from a $47 billion net inflow to a $80 net outflow).

4.2. The Challenges Ahead

In view of the country's past struggles with swings in capital flows, it is not surprising that China is reluctant to abolish capital controls before its financial market is ready. Even though China has begun liberalizing its financial services industry at a rapid pace since its accession to the WTO, it is questionable whether its banks and capital markets can now function efficiently as financial intermediaries. As long as its financial sector is still underdeveloped, portfolio inflows are likely to be used inefficiently. The banking and corporate sectors may also tend to increase their exposure to currency risk faster than their ability to manage that risk, a problem that was central to the Asian crisis of 1997-1998. At the same time, once capital is allowed to exit freely, a large amount of capital flight could occur if perceptions of political uncertainty suddenly increase.

Most economists also agree that it is unwise for countries (such as China), where FX trading is inhibited (either by incomplete markets or government regulations

or both), to plunge into a floating exchange rate regime.[26] A sufficient number of market makers willing and able to take open positions is an important factor for a reasonably smooth market-based float.[27] Despite all the progress China has made so far, Chinese commercial banks are still constrained in their ability to take large open positions to fulfill their roles as FX market makers for a variety of reasons: The domestic bond market is still not sufficiently deep and liquid, the domestic banking system is still tightly regulated, and capital controls are not near to being completely abolished. With no natural market makers in the system, an immediate switch to freely float the yuan would very likely result in wildly erratic movements in the yuan exchange rate, while the ability and options of traders (exporters and importers) to hedge currency risks would still be limited.

Some economists, such as Eichengreen (2006), argue that the progress already made toward partial liberalization of capital controls actually makes it even more urgent for China to allow the yuan greater flexibility (under a managed float). Currently, China's crawling-peg exchange rate regime allows the yuan to move within

[26] Those economists include McKinnon (2007) and Eichengreen (2006). Even analysts in the Peterson Institute for International Economics, who are among the most critical of China's slowness in allowing its currency to appreciate, do not believe China is ready to adopt a free float yet. Goldstein and Lardy (2003), and more recently Goldstein (2004, 2007), maintain that "full capital account liberalization in China has to wait for a strengthening of China's banking and financial system—not that exchange rate appreciation has to wait for financial-sector reform." Since a free-floating exchange rate is not advisable without full capital-account liberalization, they have advocated that China should first revalue its currency in one big step (by about 20 percent to 25 percent from its level in June 2005) *and* widen the currency band substantially (to between 5 percent and 7 percent). After that first-stage reform and after China has strengthened its domestic financial system enough to permit a significant liberalization of capital outflows, then the country should then adopt a managed float.

[27] In countries where FX trading is not inhibited and is well functioning, large banks normally have direct access to the international market and are the dealers that match buy and sell orders for the domestic currency. In the absence of government intervention (including playing the role of a market maker), these dealers must continually take open positions—for or against the domestic currency—in order to "make" the foreign exchange market. In doing so, they provide depth and liquidity to the market, helping to stabilize the currency (at least in a well-behaved market).

a band of only 0.5 percent from the central parity announced the previous day, making it relatively easy for speculators to make one-way bets. Given that most investors consider the yuan to still be significantly undervalued, lowering restrictions on capital outflows could only encourage more speculative inflows, rendering the authorities less capable of insulating the economy from the effects of those inflows.

The authorities thus are facing a dilemma. The risk is high if China floats the yuan before its financial and FX markets are up to speed. The risk is also high if capital flows are liberalized while its financial market is still underdeveloped and its exchange rate is heavily managed. Continuing to restrict portfolio flows, however, will continue to inhibit the development of its financial and FX markets, delaying the time when the yuan is ready to float. Meanwhile, the cost of delaying the yuan's eventual shift to float—manifested in the effect that the rapidly rising FX reserves have on inflationary pressure and economic overheating—is mounting steadily. Given the Chinese economy's sizable weight in the global economy, especially in the Asian region, the stakes are high in China's transition toward floating its exchange rate.

5. Conclusion

China's economic growth since the early 1990s has been very rapid, with growth of income per capita averaging about 9 percent a year. In some aspects, China's record is even more impressive than those of the four Asian newly industrialized economies (Singapore, Hong Kong, South Korea, and Taiwan). This paper discusses the contribution that China's approach toward capital flows appears to have made to that record.

But China's approach to capital flows is not an unqualified success. It may have contributed to a pattern of unbalanced growth and rising income inequality, which risks the sustainability of its rapid growth. China's fine-tuning and gradualist approach toward capital-account liberalization, necessary to sustain its currency-peg exchange rate policy, may have also retarded the development of an efficient domestic financial market and well-functioning foreign exchange market. The acceleration of liberalizing portfolio flows since 2001 has contributed to notable progress in the financial sector; however, given China's currency-peg regime, it also further hampers the Chinese central bank's ability to rein in inflation and an overheating economy. Now that China has grown into a major world economy, whether it can successfully manage the transition toward full capital-account convertibility and a free-floating exchange rate matters not only to China but also to the global economy.

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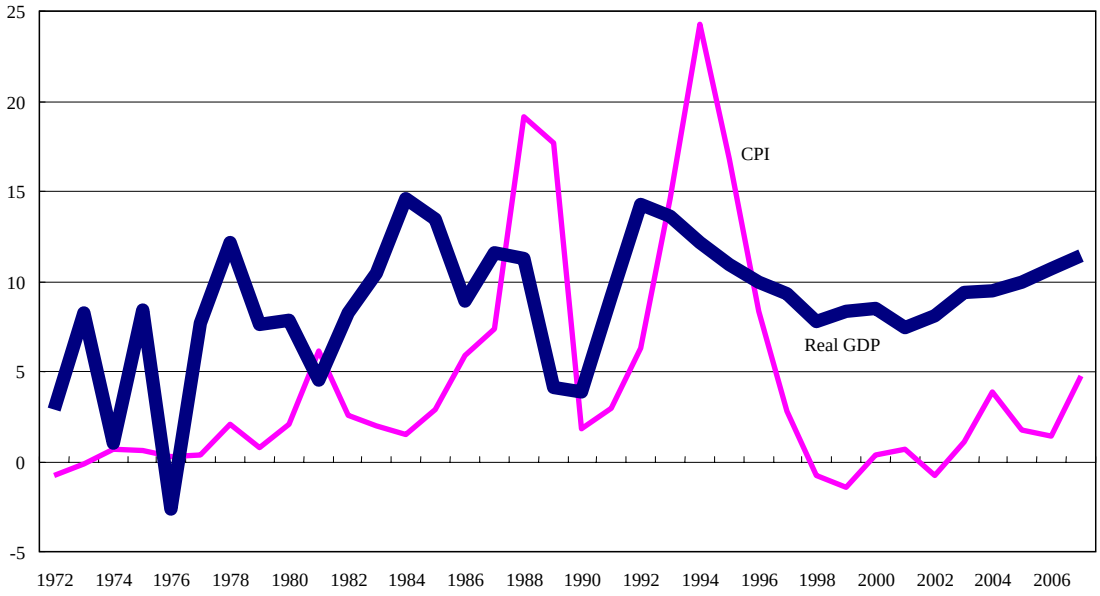
Exhibit 1: Key Aspects of China's New Corporate Income Tax Law Related to Preferential Tax Treatments, Effective January 2008

Tax Rate	Tax rate standardized at 25% for domestic enterprises (DEs) and foreign-invested enterprieses (FIEs)
Preferential Tax Treatment	Reduced tax rate of 20% for "small and thin profit" companies; and 15% for encouraged high/new-tech enterprises Expansion of the tax incentives for venture capital businesses and for investments in environmental protection, energy and water saving and safe production techniques Retention of tax incentives for investments in agriculture, forestry, animal husbandry, fishery, and basic public infrastructure projects Replacement of tax incentives for labor service enterprises, public welfare enterprises, and enterprises that utilize comprehensive resources Continuation of tax incentives for newly established high-/ new-tech enterprises in special economic zones and Shanghai Pudong New Area; and for encouraged enterprises in Western regions Cancellation of an existing tax holiday available to general production enterprises and to export-oriented enterprises New tax reduction/exemption for income generated from environmental protection and energy and water saving projects and technology transfer that meets prescribed criteria
Grandfathering of the Current Preferential Tax Treatment	Current reduced tax rates (15% or 24%) for existing FIEs will be gradually increased to the standardized rate within the five years after the implementation of the corporate income tax (CIT) law. Unused tax holiday for existing FIEs is grandfathered until the expiration. In instances in which a tax holiday did not start because of loss situations, the tax holiday shall be deemed to commence from the effective date of the unified CIT law.

Source: PricewaterhouseCoopers, Hong Kong.

Figure 1. China's Real Gross Domestic Product and Consumer Price Index

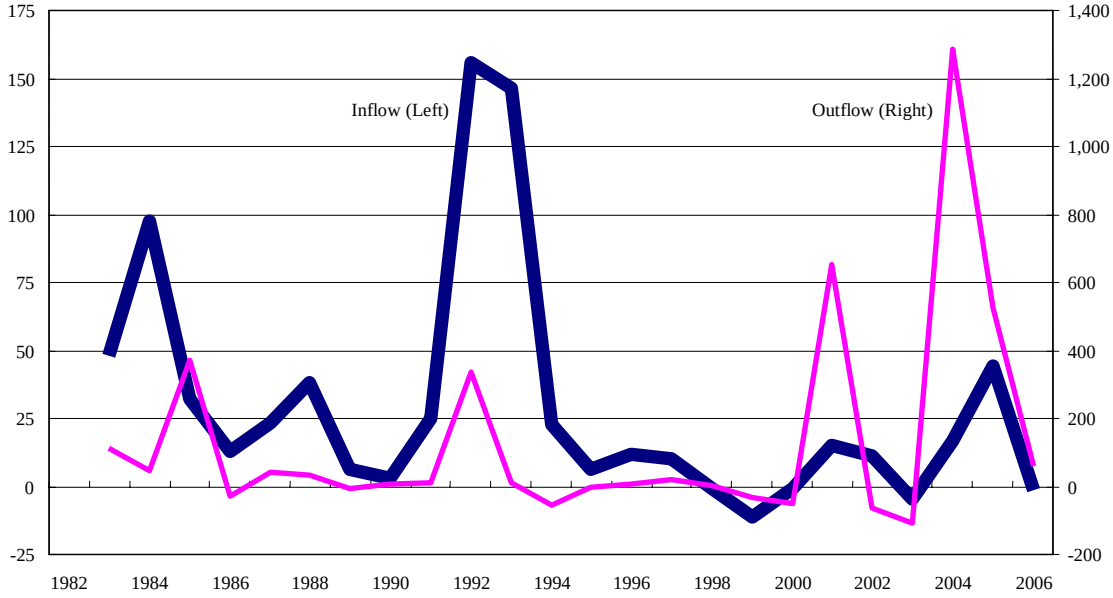
Percent Change from Previous Year



Source: China National Bureau of Statistics.

Figure 2. China's Foreign Direct Investment Flows

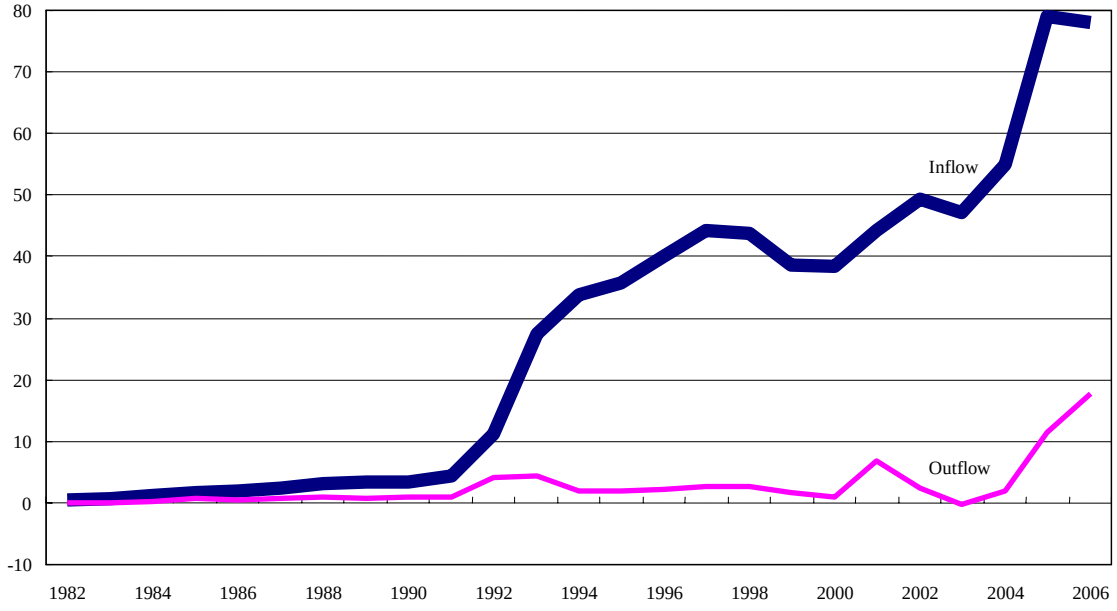
Percent Change from Previous Year



Source: State Administration of Foreign Exchange.

Figure 3. China's Foreign Direct Investment Flows

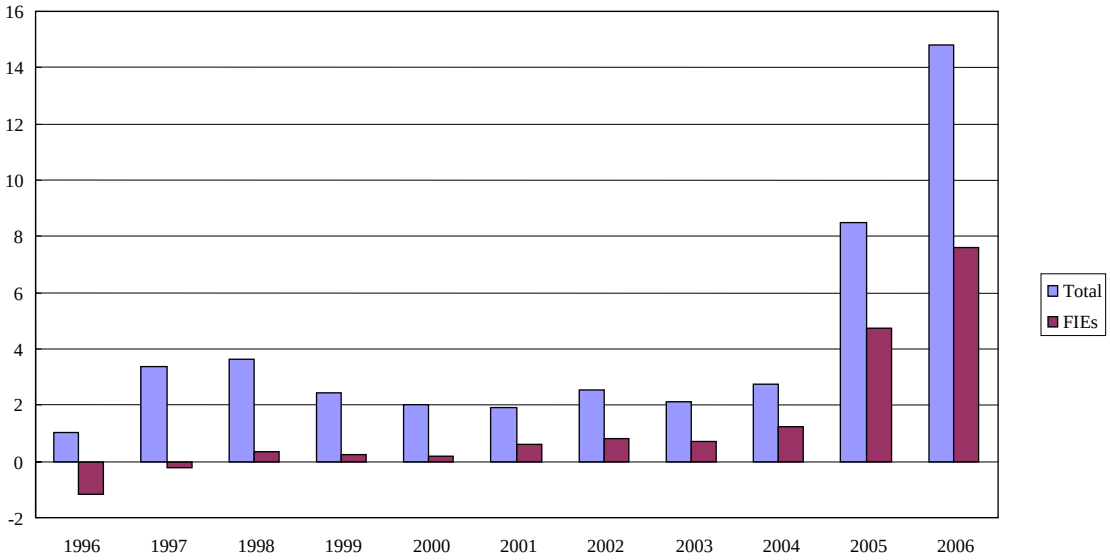
Billions of US$



Source: State Administration of Foreign Exchange.

Figure 4a. China's Trade Balances: Total vs. Foreign-Invested Enterprises'

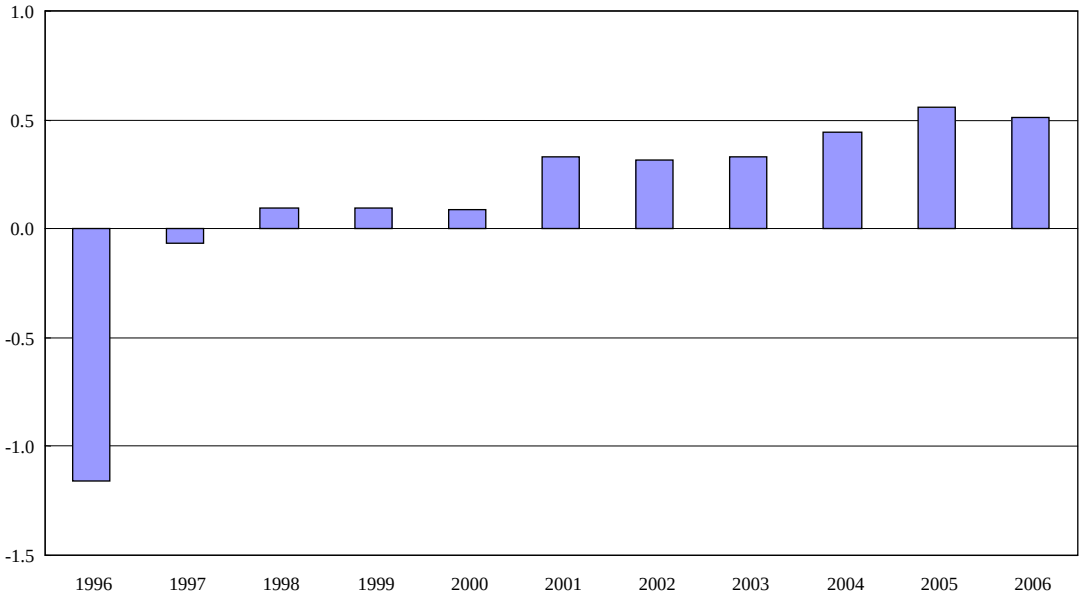
Billions of US$



Source: CEIC.

Note: FIE = foreign-invested enterprise.

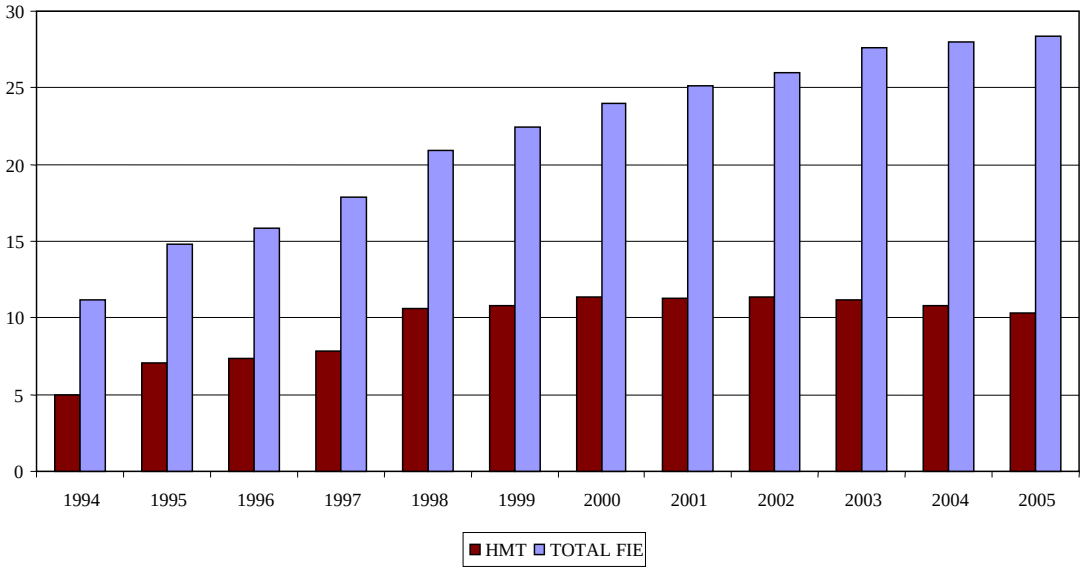
Figure 4b. Ratio of China's Foreign-Invested Enterprises' Trade Balance to Total Balance



Source: CEIC.

Figure 5. Value Added of Mining and Manufacturing in China: FIEs vs. HMT

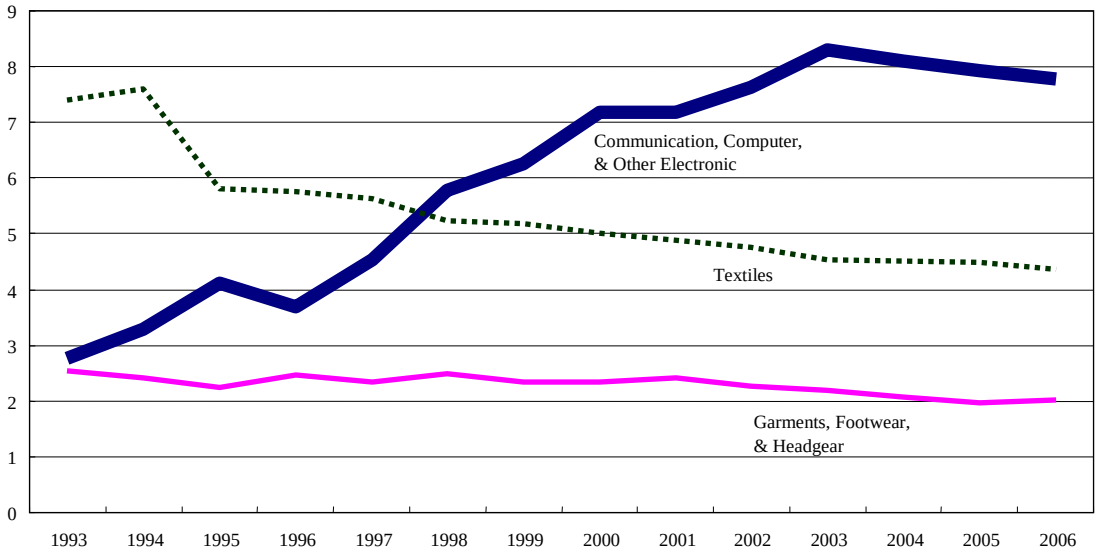
Percent of Total Value Added of Mining and Manufacturing



Source: CEIC.

Notes: FIE = foreign-invested enterprise; HMT = Hong Kong, Macau, and Taiwan; 2004 is interpolated.

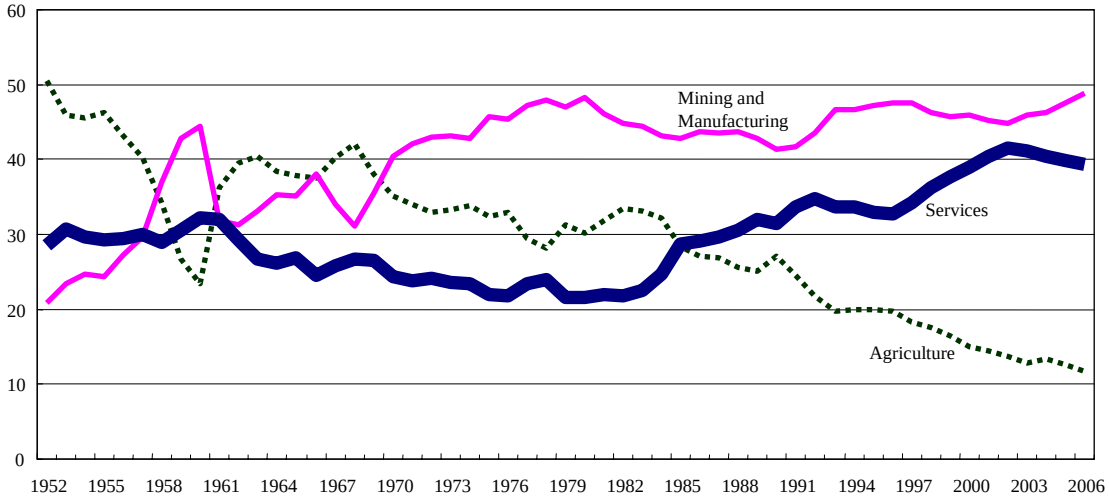
Figure 6. Value Added of Selected Industries in China
Percent of Total Value Added of Mining and Manufacturing



Source: CEIC.
Note: 2004 is interpolated.

Figure 7. China's Gross Domestic Product by Sector

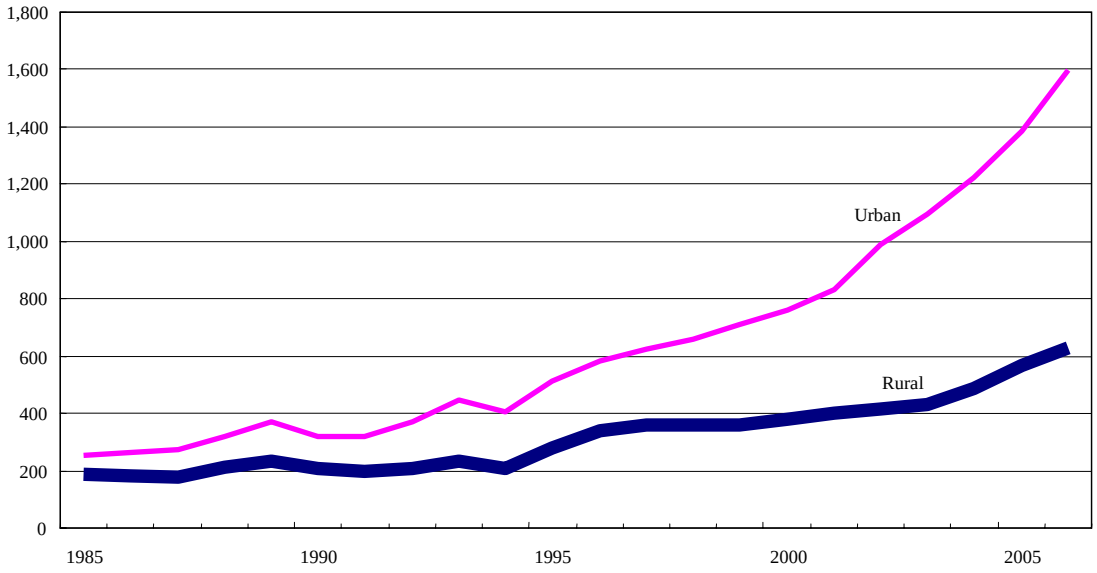
Percent



Source: China National Bureau of Statistics.

Figure 8. Annual Income per Capita in China: Urban vs. Rural

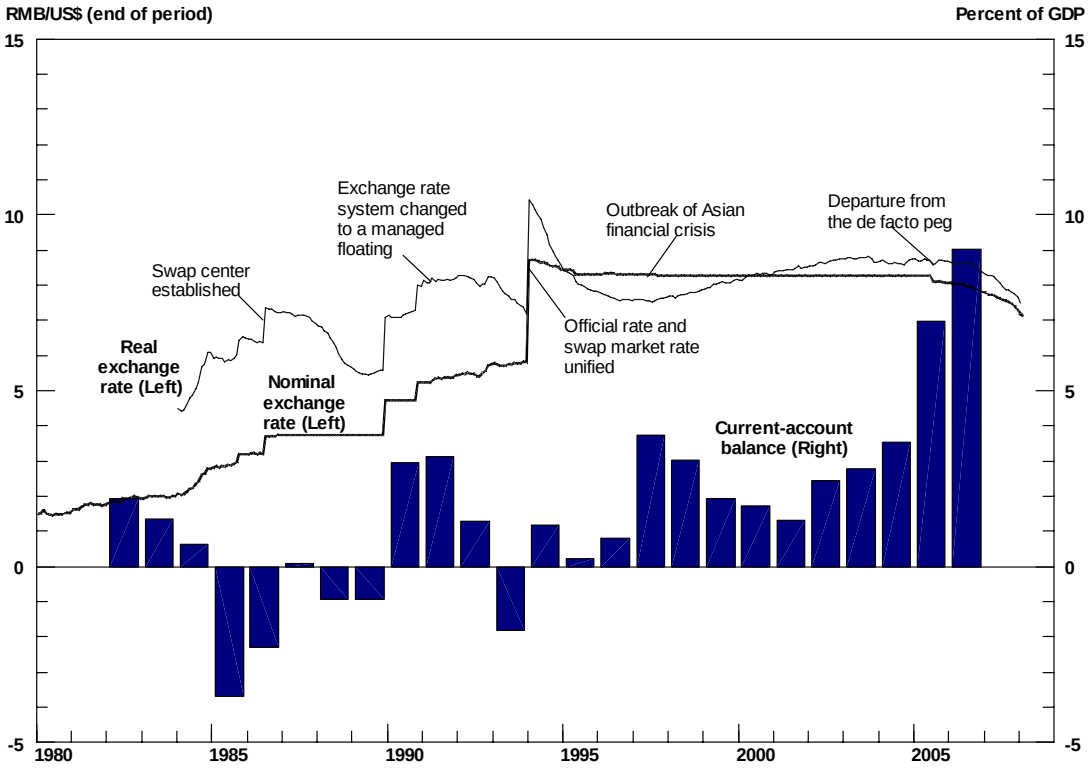
US$



Source: CEIC.

Note: 1986 rural income per capita is interpolated.

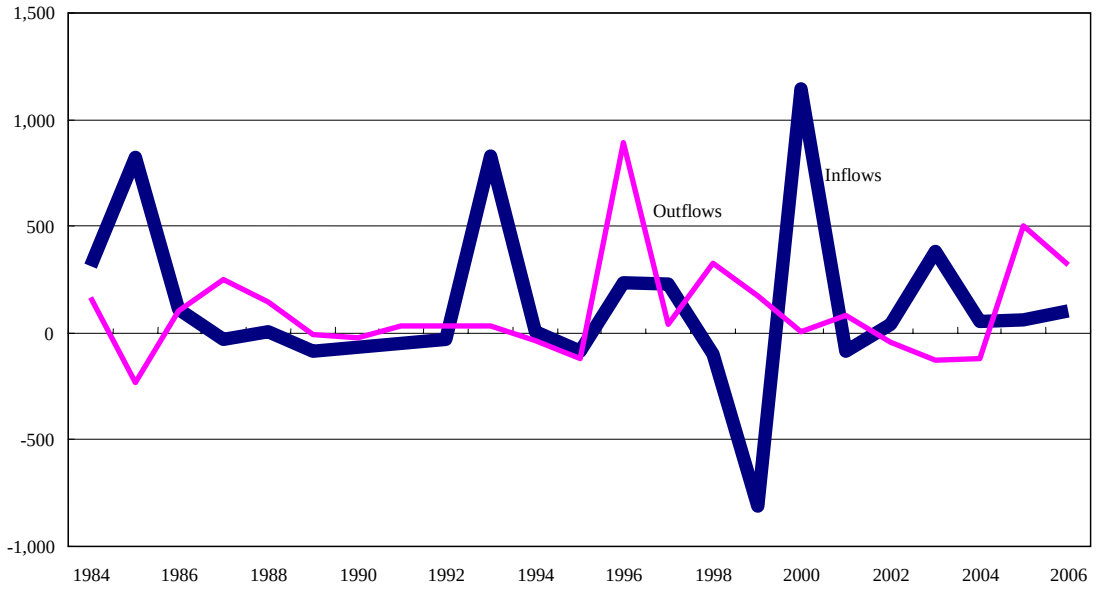
Figure 9. China's Current-Account Balance and the RMB Official Exchange Rate



Sources: Min Zhao, *External Liberalization and the Evolution of China's Exchange System: an Empirical Approach* (2006); China National Bureau of Statistics; China State Administration of Foreign Exchange; Organisation of Economic Co-operation and Development; Haver Analytics.

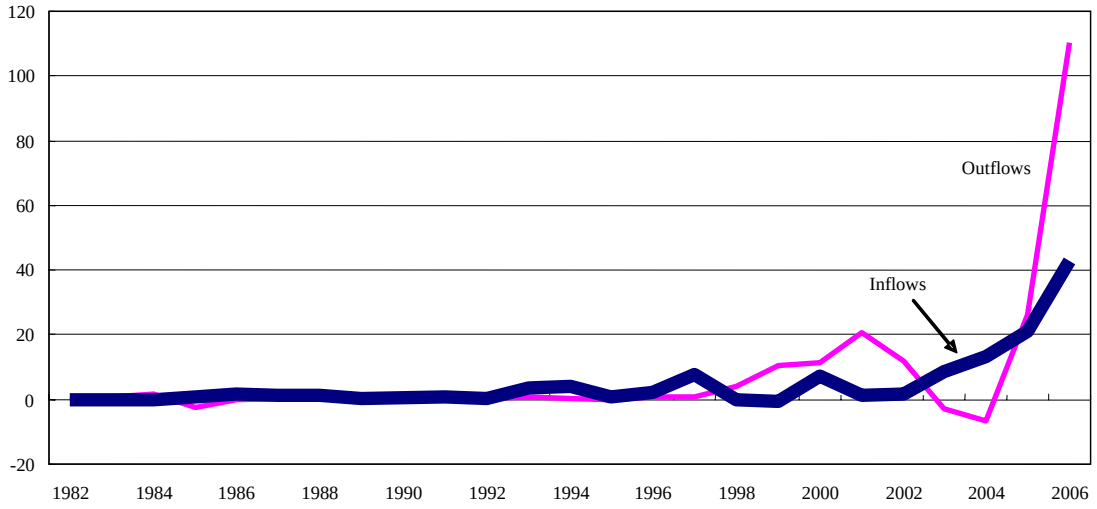
Note: RMB = renminbi (yuan); GDP = gross domestic product.

Figure 10. Growth of China's Portfolio Inflows and Outflows
(Percent Change from Previous Year)



Source: State Administration of Foreign Exchange.

Figure 11. China's Portfolio Flows
Billions of US$



Source: State Administration of Foreign Exchange.

Table 1. Changing Sources of FDI Inflows to China

Percent of Total Realized Value for Year

	1990	1992	2001	2002	2003	2004	2005	2006
Hong Kong (China)	53.9	68.2	35.7	33.9	33.1	31.3	24.8	29.1
European Union	4.2	2.2	8.9	7.0	7.4	7.0	7.2	9.8
United States	13.1	4.6	9.5	10.3	7.9	6.5	4.2	9.4
Japan	14.4	6.5	9.3	7.9	9.5	9.0	9.0	6.6
Korea	--	--	--	5.2	8.4	10.3	7.1	5.6
Singapore	--	--	--	4.4	3.9	3.3	3.0	3.4
Taiwan	6.4	9.5	6.4	7.5	7.4	5.1	3.0	3.1
Other	8.0	9.0	30.3	23.8	22.7	27.4	41.6	33.0
Virgin Islands	--	--	--	11.6	10.8	11.1	12.5	16.2

Source: MOFCOM FDI Statistics.

Web address: http://www.fdi.gov.cn/pub/FDI_EN/Statistics/AnnualStatisticsData/default.jsp.

Table 2. Fixed Asset Investment in China by Source of Funds

Percent of Total, Average

	1981-1984	1985-1988	1989-1996	1997-2000	2001-2006
State Appropriation	24.0	12.7	3.9	4.8	4.8
Domestic Loan	13.4	21.4	21.7	18.6	18.1
Foreign Capital	4.3	4.9	8.9	7.4	4.2
Self-Raised and Other	58.3	61.0	65.5	69.2	72.9
Total	100.0	100.0	100.0	100.0	100.0

Source: CEIC.

Note: There is a break in the data in 1996.

Table 3. Distribution of China's Foreign Direct Investment Inflows by Sector, Selected Years

Percent of Total Capital Utilized

	1997	2001	2004	2006
Agricultural	1.4	1.9	1.8	0.9
Construction	3.2	1.7	1.3	1.0
Electricity, Gas, and Water Supply	4.6	4.8	1.9	1.8
Manufacturing	62.1	65.9	71.0	57.7
Textile	4.1	4.1	3.9	3.0
Chemical Material and Product	3.2	4.7	4.4	3.8
Communication, Computer, and Other Electronic Equipment	5.9	15.1	11.6	11.8
Other Manufacturing	49.0	42.0	51.0	39.1
Mining	2.1	1.7	0.9	0.7
Transport, Storage, and Postal Service	3.7	1.9	2.1	2.9
Real Estate	11.4	11.0	9.8	11.8
Banking and Insurance	--	0.1	0.4	9.7
Information Transmission, Computer Service, and Software	--	--	1.5	1.5
Scientific Research	--	--	0.5	0.7
Leasing and Commercial Service	--	--	4.7	6.1
Other[a]	11.6	10.9	4.2	5.2
Total	100.0	100.0	100.0	100.0

Source: CEIC.

a. Includes wholesale and retail trade, catering, water conservancy, residential and other services, social organization, education, health care, and recreation.

Table 4. Composition of China's Exports, Selected Years

Percent of Total

	1994	2001	2004	2006
Food	8.3	4.8	3.2	2.7
Crude Materials (Except Fuel)	3.4	1.6	1.0	0.8
Mineral Fuels	3.2	3.2	2.4	1.8
Chemical Products	5.2	5.0	4.4	4.6
Basic Manufactures[a]	19.2	16.5	17.0	18.0
Machinery and Transport Equipment	18.1	35.7	45.2	47.1
Office and ADP Machines	2.2	8.8	14.7	13.9
Electrical Machinery	4.9	9.5	10.0	10.5
Telecom. and Sound Recording Equipment	5.6	8.9	11.5	12.8
Other Machinery and Transport Equipment	5.4	8.4	9.0	10.0
Miscellaneous Manufactures	41.3	32.7	26.4	24.6
Apparel and Clothing Accessories	19.6	13.8	10.4	9.8
Footwear	5.0	3.8	2.6	2.3
Travel Goods and Handbags	2.0	1.5	1.1	0.9
Other Miscellaneous Manufactures[b]	14.7	13.7	12.3	11.6
Other[c]	1.4	0.6	0.4	0.4
Total	100.0	100.0	100.0	100.0

Source: CEIC.

Note: ADP = automated data processing.

a. Includes leather, rubber, wood, paper, yarn, fabric, iron, steel, nonmetallic mineral manufactures, and nonferrous metals.

b. Includes furniture, photographic equipment, watches, prefabricated buildings, professional instruments, and sanitary plumbing.

c. Includes beverages, tobacco, and animal and vegetable oils.

Table 5. Real per Capita GDP

Average Annual Growth Rate

	1971-79	1980-89	1990-99	2000-06	1979 Level (2000 US$)	2006 Level (2000 US$)
China	3.9	8.1	8.8	8.9	173	1,593
India	0.3	3.5	3.6	5.1	207	591
U.S.	2.5	2.1	1.8	1.6	23,037	37,807

Sources: Haver Analytics; Federal Reserve Board; Department of Commerce, Bureau of Economic Analysis and Bureau of the Census; China National Bureau of Statistics; Reserve Bank of India.
Note: The GDP data underlying column one come from the Federal Reserve Board, whereas the GDP data underlying the other columns come from Haver Analytics. Therefore, the first column may not be consistent with the later columns.

Table 6. Distribution of China's Nonfinancial Outward Direct Investment, by Sector

Percent of Total

	2003	2004	2005	2006	Average, 2003-2006
Agricultural	2.9	5.3	0.9	1.0	2.5
Construction	0.8	0.9	0.7	0.2	0.6
Electricity, Gas, and Water Supply	0.8	1.4	0.1	0.7	0.7
Manufacturing	21.9	13.7	18.6	5.1	14.8
Mining	48.3	32.7	13.7	48.4	35.8
Transport, Storage and Postal Service	2.7	15.1	4.7	7.8	7.6
Real Estate	-0.5	0.2	0.9	2.2	0.7
Information Transmission and Computer Service	0.3	0.6	0.1	0.3	0.3
Scientific Research	0.2	0.3	1.1	1.6	0.8
Leasing and Commercial Service	9.8	13.6	40.3	25.6	22.3
Other[a]	12.9	16.2	19.0	7.0	13.8
Total	100.0	100.0	100.0	100.0	100.0

Source: CEIC.

a. Includes wholesale and retail trade, catering, water conservancy, residential and other services, social organization, health care, and recreation.

Table 7. Regions and Countries Receiving China's Nonfinancial Outward Direct Investment

Percent of Total Nonfinancial Outward Direct Investment

	2003	2004	2005	2006
Asia	52.7	54.6	35.7	43.5
Hong Kong	40.3	47.8	27.9	39.3
Japan	0.3	0.3	0.1	0.2
Korea	5.4	0.7	4.8	0.2
Singapore	-0.1	0.9	0.2	0.7
Europe	5.1	2.9	3.2	3.4
Russia	1.1	1.4	1.7	2.6
North America	2.0	2.3	2.6	1.5
United States	2.3	2.2	1.9	1.1
Latin America	36.4	32.1	52.7	48.0
Cayman Islands	28.3	23.4	42.1	44.4
Africa	2.6	5.8	3.2	2.9
Other	1.2	2.4	2.5	0.7

Source: CEIC.

Table 8. China's Balance of Payments (Bil. of US $)

(+: Capital Inflows; -:Capital outflows)

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Change in FX Reserves (+:increase)	35.9	6.2	8.7	10.7	47.3	75.5	117.0	206.4	207.0	247.0
Current Account Balance	37.0	31.5	21.1	20.5	17.4	35.4	45.9	68.7	160.8	249.9
Financial Account Balance	21.0	-6.3	5.2	2.0	34.8	32.3	52.8	110.7	58.9	6.0
Net FDI Inflows	41.7	41.1	37.0	37.5	37.4	46.8	47.2	53.1	67.8	60.3
Net Portfolio Inflows	6.9	-3.7	-11.2	-4.0	-19.4	-10.3	11.4	19.7	-4.9	-67.6
Other Inflows	-27.6	-43.7	-20.5	-31.5	16.9	-4.2	-5.9	37.9	-4.0	13.3
Errors and Omissions	-22.1	-18.9	-17.6	-11.7	-4.9	75.5 7.8	18.4	27.0	-16.8	-12.9
Memo:										
Adjusted Financial Account Bal.	-1.1	-25.2	-12.4	-9.8	30.0	40.1	71.2	137.8	42.1	-6.9
Adjusted Net Portfolio Inflows (including errors & omissions)	-15.2	-22.6	-28.9	-15.7	-24.3	-2.5	29.8	46.7	-21.7	-80.4
Current account/GDP Ratio (%)	3.8	3.0	1.9	1.7	1.3	2.4	2.8	3.5	7.0	9.0

Source: China's State Administration of Foreign Exchange.

Note: (1). Change in Foreign Exchange (FX) Reserves = Current Account Balance + Financial Account Balance + Errors and Omissions.

(2). GDP = gross domestic product.