

# 4

## Facing protectionism generated by trade disputes

### China's post WTO blues

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#### **The escalation of friction between China and its trading partners**

China's current account in the balance of payments has been in surplus since 1994 and it has shown a clear upward trend, reaching US\$184 billion in 2006, or 9 per cent of gross domestic product (GDP). As China's capital account is also in persistent surplus because of the large inflows of foreign direct investment (FDI) and capital controls on outflows, its foreign exchange reserves reached US\$1.07 trillion in 2006—the largest in the world. China also became the second-largest holder of US Treasury securities, holding as much as US\$353.6 billion, trailing only Japan, which holds US\$648.8 billion.

At the time of writing (June 2007), China's overall trade surplus, the China–US trade surplus and the China–EU trade surplus continued to soar,<sup>1</sup> causing a marked escalation in concern about China's unfair trading practices and the gross undervaluation of the renminbi. In February 2007, the US Trade Representative (USTR) had filed a case with the World Trade Organization (WTO) against prohibited subsidies in China. This action was followed by two more WTO cases against China in April 2007—challenging market access restrictions on products of copyright-intensive industries and challenging weaknesses in the legal regime for protection and enforcement of copyrights and trademarks.<sup>2</sup>

In order to appreciate adequately the high intensity of the sound and the fury of the anti-China rhetoric—and the global character of these criticisms—it is worthwhile to quote a number of news reports from the barrage of press articles on the trade imbalance issue that appeared on 13 June 2007.<sup>3</sup>

The *Financial Times* (2007a) reported

Peter Mandelson, the EU trade commissioner...called various aspects of China's trade policy 'illogical, indefensible' and 'unacceptable and accused [China] of doing nothing to rein in rampant counterfeiting...Mr Mandelson also refused to grant China market economy status...[because it had] fulfilled [only] one of five criteria.<sup>4</sup>

The *Straits Times* (2007) of Singapore reported

Peter Mandelson proclaimed that the...[EU] trade deficit with China was no longer 'tolerable' and warned that relations with Beijing were now at a 'cross-roads'...[Trade is] so skewed that the EU now exports more to Switzerland... than to the entire Chinese market.

*USA Today* (2007) reported that

[a]fter years of inconclusive skirmishing, trade tensions between the United States and China are about to intensify. 'We are competing not only with a country with low wages but with very high and heavy subsidies and a rigging of their currency,' says Rep. Sander Levin, D-Mich., chairman of the House trade subcommittee. 'I hate the term trade war because it is always used when you try to get a fair break...Sometimes pressure works.'

In confirmation of the growing perception of—and deepening dissatisfaction about—unfair Chinese trading practices, the media on 13 June 2007 also contained reports on the actions being undertaken by the Bush administration and the Chinese government to forestall protectionism.

The *Standard* (2007) of Hong Kong reported

US lawmakers plan to introduce legislation today seeking to pressure China to raise the value of the yuan to stem a ballooning trade imbalance... Sponsored by Democratic senator Charles Schumer, the bill will lay out the US response whenever countries 'unfairly undervalue their currency'. Currently, there are half a dozen measures before the US Congress aimed at China, including proposals to apply sanctions unless it allows the yuan to appreciate by at least 10 per cent.

The *Wall Street Journal* (2007b) reported

[t]urning aside growing congressional anger over the US trade deficit with China, President George Bush's administration today will reject demands that it formally accuse Beijing of 'manipulating' its currency to give Chinese companies an edge over American businesses. 'There might be an initial sigh of relief in the markets that the Treasury has not taken a more confrontational line, but protectionist pressures are only likely to build', Julian Jessop, chief

international economist at Capital Economics in London, warned clients in a note yesterday. Meanwhile Beijing took steps yesterday apparently aimed, at least in part, at defusing US concerns. Chinese authorities permitted an unusually large rise in its tightly controlled currency.

The *International Herald Tribune* (2007) reported that 'the yuan had the biggest gain since the end of a dollar link in July 2005. The yuan rose 0.26 per cent to 7.6436 against the dollar...[yielding a cumulative gain of] 8.3 per cent since...July 2005.'

Events then moved quickly. On 14 June 2007, Senators Max Baucus (Democrat from Montana), Charles E. Grassley (Republican from Iowa), Charles E. Schumer (Democrat from New York) and Lindsey Graham (Republican from South Carolina) introduced legislation 'to punish China if it did not change its policy of intervening in currency markets to keep the exchange value of the currency, the yuan, low' (*New York Times* 2007).

On 19 June 2007, the International Monetary Fund (IMF) adopted a new country surveillance framework that set out

...a catch-all obligation on countries not to adopt policies that undermine the stability of the international system, and lists a set of objective criteria that will be used to indicate whether a country is complying with its commitments. Warning lights will include large-scale currency intervention, the accumulation of reserves and 'fundamental exchange rate misalignment'—a term that mirrors language in a bill before the US Congress that would impose penalties on nations that fail to correct such misalignments. Rodrigo Rato, managing director of the IMF, said: 'This decision is good news for the IMF reform programme and good news for the cause of multilateralism... [because this new framework] gives clear guidance to our members on how they should run their exchange rate policies, on what is acceptable to the international community and what is not' (*Financial Times* 2007b).

The above developments were warnings that China, Europe and the United States could be marching towards a trade war. In this chapter, we examine the reasons for the trade friction with China and propose policies to reduce that friction. Our discussion will focus on four questions

- 1 What are the problems caused by trade imbalances?
- 2 What are the problems revealed by the appearance of trade imbalances?
- 3 Is a large yuan appreciation the best cure for trade friction?
- 4 What is to be done?

## **What are the problems caused by trade imbalances?**

It is not uncommon to encounter allegations that the US–China trade deficit represents the export of unemployment from China to the United States. A recent study by Robert Scott (2007), of the Economic Policy Institute, used an input–output model to arrive at the claim that the bilateral trade deficit of US\$49.5 billion in 1997 caused the loss of 597,300 jobs that year and the 2006 bilateral trade deficit of US\$235.4 billion caused the loss of 2,763,400 jobs—and that every state had suffered a net loss of jobs from the rise in the bilateral trade deficit during 1997–2006. The alleged job losses in 2006 from the bilateral trade deficit implied that the 2006 unemployment rate was 1.21 percentage points higher than if the bilateral trade balance had been zero.<sup>5</sup>

There are two major problems with the Scott (2007) study. First, the overall unemployment rate in the United States did not grow in line either with the widening overall US trade deficit or with the widening US–China trade deficit. The average unemployment rate of 4.9 per cent in the 1998–2006 period was lower than the average unemployment rates in the previous periods of 1980–88 and 1989–97, which were 7.5 per cent and 6 per cent respectively. In reality, the US economy was a highly successful job-creation machine in the 1997–2006 period.

Second, in the face of the strong demand for labour in the US economy during the period of growing trade deficit, a substantial amount of the so-called job losses could have been voluntary departures by workers—rather than involuntary displacement of workers—from import-competing industries that paid low wages or had potentially low wage growth in the future.

The more sophisticated complaint against the growing trade deficit is that the displacement of workers adds to the downward pressure on US wages created by globalisation. This downward wage pressure comes from the post 1990 integration of the labour force in the former Soviet Union, India and China into the international division of labour. The number of workers already engaged in the international division of labour was 1.08 billion in 1990, and the combined labour force of the former Soviet Union, India and China was 1.23 billion (Table 1). The division of labour in 1990 was certainly an unnatural one because half of the world's workforce had been kept out of it voluntarily by the autarkic policies of the former Soviet Union, India and China.

The economic isolation of the Soviet bloc started crumbling when the new non-communist Solidarity government of Poland began marketisation and internationalisation of its economy on 1 January 1990. The economic transition and political disintegration of the Soviet bloc became irreversible when President Boris Yeltsin replaced Mikhail Gorbachev as the unambiguous

leader of Russia in August 1991 and implemented market-oriented reforms in January 1992.<sup>6</sup>

For the Chinese élite, the events in the Soviet Union confirmed that there did not exist a third way in the capitalism versus socialism debate. In early 1992, Deng Xiaoping led a successful campaign to put China firmly on the path of convergence to a private market economy (Sachs and Woo 2000, 2003). Today, under the heading of a socialist market economy with Chinese characteristics, the Chinese constitution gives private property the same legal status as public property, and the Chinese Communist Party accepts capitalists as members.

In 1991, India faced a balance-of-payments crisis, and it responded by going well beyond administration of the standard corrective macroeconomic medicine of fiscal monetary tightening and exchange-rate devaluation into comprehensive adjustments of microeconomic incentives. The trade regime was deregulated significantly, restrictions on foreign investment were relaxed, reform of the banking sector and the capital markets was initiated, and divestment of public enterprises and tax reforms were announced (Acharya 2004).

A decade after the start of internationalisation, the number of workers involved in the international economic system had increased to 2.67 billion in 2000 (with 1.36 billion workers from the former Soviet Union, India and China) (Table 4.1). The Heckscher-Ohlin model would predict that this doubling of world labour—achieved by bringing in cheaper labour from the former Soviet Union, India and China—would lower the relative price of labour-intensive goods and hence reduce real wages in industrialised economies.<sup>7</sup>

The fact that US capital could now move abroad to set up production facilities in the economies of the former Soviet Union, India and China to service the

Table 4.1 **The distribution of the global labour force, 1990 and 2000**  
(million persons)

	Total	Non-SIC <sup>a</sup> countries		China	SIC countries	
		Industrialised economies	Developing economies		India	Soviet bloc
1990	2,315	403	680	687	332	213
2000	2,672	438	851	764	405	214

<sup>a</sup> SIC— former Soviet Union, India and China.

**Source:** Freeman, R., 2004. Doubling the global work force: the challenge of integrating China, India, and the former Soviet Bloc into the world economy, Harvard University, 8 November (unpublished). Our figure for 'total' in 2002 is different from that in Freeman (2004).

US market provided another channel (besides the cross-border movement of goods) for globalisation to depress US wage rates. It is important to note that the imposition of a very high US tariff would not only drastically curb imports from the former Soviet Union, India and China, it would also radically reduce this type of FDI flow from the United States to the former Soviet Union, India and China.

The inconvenient fact is, however, that the US real wage has not fallen. One possible explanation to reconcile the theoretical prediction with the real outcome is the remarkably high US productivity growth since the late 1980s, perhaps enabled in large part by the information and communications technology revolution. This productivity growth was high enough to prevent the real wage from declining but not enough to keep it growing at the same rate as GDP growth—and the economic impact of globalisation is manifested in a diminished labour share of GDP.

While the Heckscher-Ohlin model does provide a coherent mechanism for globalisation to lower the labour share of US income and to widen the distribution of US wages, the inconvenient truth is that China cannot be blamed as the most influential factor in these two wage outcomes, even though China accounted for 764 million of the combined labour force of the former Soviet Union, India and China of 1.38 billion in 2000. China is not the main culprit because there have been three other, independent developments that have had important consequences for US wages.

First, there have been technological innovations that have substituted capital for labour—for example, fewer secretaries are needed because answering machines can now convert messages into voice files and email them to the travelling professionals. Technological innovations have also transformed many of what were traditionally non-tradable services into tradable services, allowing jobs to be outsourced to foreign service providers. For example, the information and communications technology revolution has allowed offshore call centres to handle questions from US customers, offshore accountants to process US-based transactions and offshore medical technicians to read the X-rays of US patients.<sup>8</sup>

Second, there have been institutional changes that attenuated the labour share of income. Union membership has declined, reducing the bargaining power of labour. There has also been an upward shift in the compensation norms for high-level executives, often using vehicles such as stock options, which in effect make them co-owners of the company. This could reflect a combination of a shift in social attitudinal norms and more collusion between managers and their boards.<sup>9</sup>

Third, there was increased immigration into the United States (before 2001), especially a disproportionate inward immigration of low-skilled labour.<sup>10</sup>

Based on a partial review of the literature, our assessment is that the pressure that is preventing US wages (especially of unskilled labour) from rising in line with GDP growth can be roughly decomposed among the various factors as follows

- 70–80 per cent of the downward wage pressure is from labour-substituting technological innovations, and wage-weakening institutional changes
- 5–10 per cent of the downward wage pressure is from inward immigration
- 15–20 per cent of the downward pressure is from import competition and the relocation of manufacturing activities abroad.

In short, the popular outcry in the United States and the European Union against China's trade surpluses is misplaced. Even if China's trade balance were zero, the pains of structural adjustment and income redistribution caused by technological innovations, institutional changes, globalisation and immigration would still be there. The additional pain from the incremental structural adjustment caused by the widening trade deficit is minor in comparison.

### **What are the problems revealed by the appearance of trade imbalances?**

Before discussing the economic problems in China and the United States that generated the trade imbalances, we should mention a troubling basic data issue: there is strong disagreement about the size of the US–China trade deficit. Figure 4.1 shows that the Chinese figure for the bilateral deficit in 2006 (US\$145 billion) was only 57.7 per cent of the US figure (US\$251 billion).<sup>11</sup> The huge gap between these two estimates in 2006 was a huge improvement in accuracy from the past in two ways. First, the gap was usually much larger in previous years: for example, the 1993 Chinese estimate of the trade deficit was only 25.6 per cent of the US estimate. Second, the recent period is one in which the two countries could agree whether the bilateral balance was in surplus or in deficit! Throughout the 1983–92 period, the Chinese data showed China to be running a deficit in its trade with the US but the US data showed a surplus.

Given these wildly different measures of the size of the bilateral trade imbalance, it is only to be expected that each side would regard the bilateral trade imbalance with a different degree of concern. The primary reason for the discrepancy between the Chinese and US estimates is the different national treatment of US–China trade that goes through Hong Kong.<sup>12</sup> Drawing on the

work of Feenstra et al. (1999) for the analysis in this chapter, we will measure the US–China trade balance as the simple average between the US estimate and the Chinese estimate, as reported in the IMF's *Direction of Trade Statistics* database.<sup>13</sup>

Figure 4.2 displays three items: China's overall trade balance, the China–US trade balance and the China–EU trade balance. China has been running a surplus on its US trade since 1986, a surplus on its EU trade since 1997 and a surplus on its overall trade since 1994. Since 1986—except for the four years associated with an economic downturn in China (1990, 1991, 1997 and 1998)—the bilateral surplus with the United States exceeded China's overall trade surplus, meaning that China was running massive deficits in its trade with some of its other trading partners.

The changing configuration of China's bilateral trade balances reflects mainly the steady expansion of production networks into China. In this new geographical division of the production of components and of the production stages in manufacturing, China usually makes the cheaper components and assembles the final products by combining the domestically produced components with imported components. The fast transfer of manufacturing and assembly operations to China from Japan, Taiwan and South Korea translates directly into high growth in the China–US trade surplus because this transfer reduces the Japan–US trade surplus and the South Korean–US trade surplus correspondingly. In short, the China–US trade deficit could be reduced by transferring the assembly operations of Korean, Taiwanese, Japanese and European production networks to Vietnam, but the Vietnam–US trade deficit would then increase, leaving the overall US trade balance unchanged.

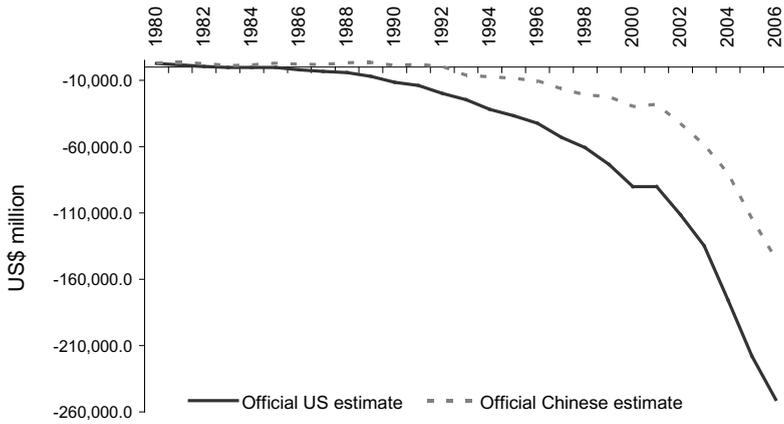
China's chronic and growing overall trade surplus reveals a deep-seated problem in its economy: its dysfunctional financial system. This problem is revealed by the aggregate-level accounting identity that the overall current account balance (of which, in China, the overall trade account is the biggest part) is determined by the fiscal position of the government, and by the savings–investment decisions of the state-controlled enterprise (SCE) sector and the private sector.<sup>14</sup> Specifically,

$$CA = (T - G) + (S_{SCE} - I_{SCE}) + (S_{private} - I_{private}) \quad (1)$$

where CA is the current account in the balance of payments.

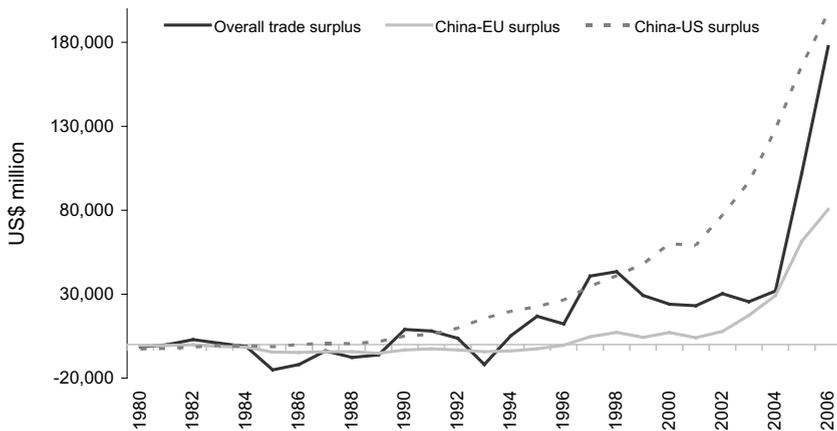
$$CA = (X - M) + R \quad (2)$$

Figure 4.1 **US–China trade deficit: discrepancy between US and Chinese data, 1980–2006 (US\$ million)**



**Source:** International Monetary Fund (IMF), 2007. *Direction of Trade Statistics*, 9 May, Statistics Department, International Monetary Fund, Washington, DC.

Figure 4.2 **China trade account balance, 1980–2006 (US\$ million)**



**Source:** International Monetary Fund (IMF), 2007. *Direction of Trade Statistics*, 9 May, Statistics Department, International Monetary Fund, Washington, DC.

where  $X$  is the export of goods and non-factor services,  $M$  is the import of goods and non-factor services,  $R$  is the net factor earnings from abroad (that is, export of factor services),  $T$  is state revenue,  $G$  is state expenditure (including state investment),  $S_{SCE}$  are the savings of the SCEs,  $I_{SCE}$  is investment of the SCEs,  $S_{private}$  is savings of the private sector and  $I_{private}$  is private-sector investment.

The Chinese fiscal position ( $T-G$ ) has for the past decade been a small deficit, so it was not the cause for the swelling current account surpluses in the 2000s. The current account surplus exists because the sum of savings by SCEs and the private sector exceeds the sum of their investment expenditures. The current account surplus has expanded steadily because the non-government savings rate has been rising steadily. We will argue later that there is a link between the existence of the current account surplus and the growth of the surplus.

Why has China's financial system failed to translate the savings into investments? Such an outcome was not always the case. Before 1994, the voracious absorption of bank loans by SCEs to invest recklessly kept the current account mostly negative and the creation of non-performing loans high. When the government implemented stricter controls on the state-owned banks from 1994 onwards (for example, by removing top bank officials whenever their bank lent more than its credit quota or allowed the non-performing loan ratio to increase too rapidly), the state-owned banks slowed the growth of loans to SCEs. This cut-back created an excess of savings because the state-owned bank-dominated financial sector did not then channel the released savings (which were also increasing) to finance the investment of the private sector. This failure in financial intermediation by the state-owned banks is quite understandable. Firstly, the legal status of private enterprises was, until recently, lower than that of state-owned enterprises; and, secondly, there was no reliable way to assess the balance sheets of the private enterprises, which were naturally eager to escape taxation. The upshot was that the residual excess savings leaked abroad in the form of the current account surplus. Inadequate financial intermediation has made developing China a capital-exporting country!

This perverse current account outcome is not new. Taiwan had exactly this problem until the mid 1980s when all Taiwanese banks were state owned and were operated according to the civil service regulation that the loan officer had to repay any bad loan that he had approved. The result was a massive failure in financial intermediation, which caused Taiwan's current account surplus to be 21 per cent of GDP in 1986. The reason why China has not been producing the gargantuan current account surpluses seen in Taiwan in the mid 1980s is because of the large amount of SCE investments.

Why is the savings rate of the non-government sector rising? The combined savings of the state-owned enterprise and non-state-owned enterprise sector rose from 20 per cent in 1978 to 30 per cent in 1987, and then went above 45 per cent after 2004. In discussions on the rise of the savings rate, a common view is that the rise reflects the uncertainty about the future that many state-owned enterprise workers feel in the face of widespread privatisation of loss-making state-owned enterprises. We find this explanation incomplete because it seems that there has also been a rise in the rural savings rate even though rural residents have little to fear about the loss of jobs in the state-owned enterprise sector because none of them are employed there.<sup>15</sup>

We see two general changes that have caused urban and rural savings rates to rise significantly. The first is increased worries about the future. The steady decline in state subsidies to medical care, housing, loss-making enterprises and education, and mismanagement of pension funds by the state, have led people to save more to insure against future bad luck (for example, sickness, job loss), to buy their own lodging, build up nest eggs for retirement and invest in their children.

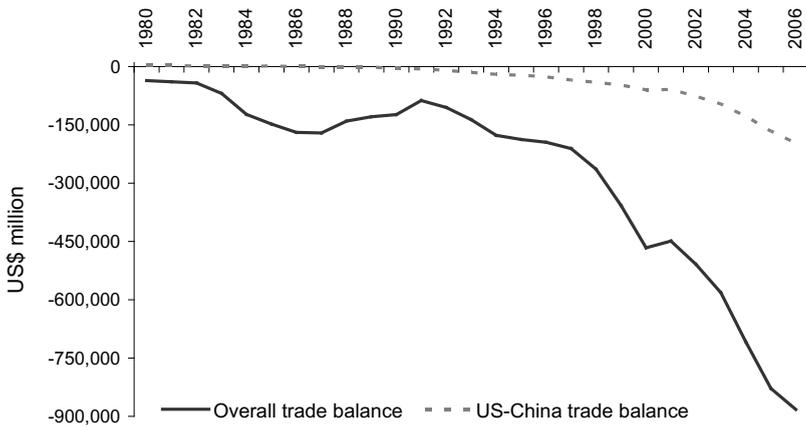
The second change is the secular improvement in the official Chinese attitude towards market capitalism. Given the high rate of return to capital, this increasingly business-friendly attitude of the Communist Party of China has no doubt encouraged rural and urban residents to save for investment: that is, greater optimism about the future has spawned investment-motivated saving.<sup>16</sup> Our investment-motivated savings hypothesis is not new. According to Jeffrey Williamson (1988), the historical record of Western Europe and North America shows that 'investment demand seems to have been the driving force behind private saving and accumulation, past and present'.

In our explanations for the existence and the growth of the current account surpluses, there is a common element: China's financial system. The fact is that savings behaviour is not independent of the sophistication of the financial system. An advanced financial system will have a variety of financial institutions that enable pooling of risks by providing medical insurance, pension insurance and unemployment insurance; and transform savings into education loans, housing loans and other types of investment loans to the private sector. *Ceteris paribus*, the more sophisticated a financial system, the lower the savings rate—a proposition that finds formal statistical support in Liu and Woo (1994) and Woo and Liu (1995). China generates the current account surplus because of inadequate financial intermediation, and the surplus grows over time because the dysfunctional financial system fails to pool risks to reduce uncertainty-induced savings and fails to provide loans to reduce investment-motivated saving (Figure 4.2).

The overall US trade balance has been in deficit at least since 1980, and it has always been much bigger than the US–China trade balance (Figure 4.3). This pattern of imbalances suggests three conclusions. First, the US–China trade deficit is only 22.4 per cent of the overall US trade deficit, so even if the bilateral trade balance were brought to zero by tariffs aimed at China, the overall trade deficit would still be large. Second, the bilateral trade deficit surplus is created by the same factors that are causing the overall trade deficit: the large annual budget deficit created by the tax cuts enacted by the Bush administration in 2001 and the post 2001 growth in defence expenditure. Third, the highly sophisticated US financial system (which pioneered the sub-prime mortgage market and corporate junk bonds to enable consumption and investment) has lowered the US private savings rate.

Clearly, the sustained nature of the overall US trade deficit was possible only because foreign lenders had faith in the growth prospects of the US economy, and because the East Asian central banks were willing to hold an increasing amount of US financial instruments. The paradox is why the US Congress is so concerned about trade deficits when foreigners have such confidence in the economic future of the United States. Both groups cannot be right.

Figure 4.3 **US trade imbalance, 1980–2006** (US\$ million)



**Source:** International Monetary Fund (IMF), 2007. *Direction of Trade Statistics*, 9 May, Statistics Department, International Monetary Fund, Washington, DC.

## **Is a large yuan appreciation the cure for trade friction?**

China has been under foreign pressure at least since 2002 to appreciate the yuan significantly. In December 2002, Haruhiko Kuroda and Masahiro Kawai (2002) from Japan's Ministry of Finance called for a yuan appreciation in order to stop China exporting its price deflation to the rest of the world. In September 2003, US Treasury Secretary, John Snow, declared that China should appreciate the yuan as part of its international responsibility to eliminate imbalances in the global balance of payments.<sup>17</sup> In September 2003, Morris Goldstein and Nicholas Lardy (2003) of the Institute for International Economics in Washington, DC, claimed that an immediate yuan appreciation of 15–25 per cent would benefit China because it would remove 'the incentive for further speculative capital inflow and reserve accumulation. No longer would the foreign component of the money supply be working at cross-purposes with the needs of domestic stabilization.'

In March 2007, Goldstein (2007) offered the opinion to the US Congress that the

...renminbi (RMB) is now grossly undervalued—on the order of 30 percent or more against an average of China's trading partners and 40 percent or more against the US dollar...[The] US Treasury has refused to label China as a 'currency manipulator' despite overwhelming evidence to the contrary and the managing director of the International Monetary Fund continues to reject the role of global umpire for exchange rate policies that was laid out for the Fund in its charter. China should deliver right away a meaningful 'down payment' of a 10–15 per cent appreciation of the RMB from its current level. Failure by China to drastically reduce its large-scale, one-way intervention in the exchange market should result in a finding of 'currency manipulation' in the Treasury's May 2007 report to the US Congress...Finally, the IMF should return to its roots by taking up in earnest the role that its founders set out for it as the global umpire for exchange rate policies.

We will use the format of question and answer to analyse the question posed in the title of this part of the paper and to assess the validity of the above assertions.

### **Did China export deflation, as Kuroda and Kawai (2003) claimed?**

The fundamental problem with Kuroda and Kawai's claim is that it is impossible to blame Japan's deflation on China's deflation because the timing is wrong. Japan's deflation started with the bursting of the stock market cum real estate bubble in 1992, which was well before China's trade account surpluses started to soar in the 2000s. If anything, trade with China since 2003 has been an important

stimulus to Japanese economic recovery. Sustained high Chinese investment spending has sucked in large amounts of intermediate inputs, machinery and capital equipment from Japan.

Would a yuan appreciation reduce global imbalances, as Bergsten (2007) claimed?

There is little doubt that a large appreciation of the yuan against the US dollar—say, 40 per cent, as suggested by Goldstein (2007)—could eliminate the US–China trade deficit as well as China’s overall trade surplus. But this move would only hurt China and would not ‘save’ the world. *Ceteris paribus*, in the aftermath of a 40 per cent yuan appreciation, foreign companies producing in China for the G7 markets would move their operations to other Asian economies (such as Vietnam and Thailand) and export from there, and G7 importers would start importing the same goods from other Asian countries instead. In the absence of a collective appreciation of all Asian currencies, a yuan appreciation would only reconfigure the geographical distribution of the global imbalances, not eliminate them.

How could a collective regional appreciation against the US dollar be achieved?

It would be naive to assume that Asian currencies tend to move closely together when one of them moves a large amount, such as 40 per cent. The last time the Asian currencies moved together by a large amount was during the Asian financial crisis of 1997–98, and China did not join in despite many predictions to the contrary. Should the US government now expand its currency appreciation campaign serially to other East Asian countries and undertake a ‘surge’ in exchange rate activism on any country that pushes back? For many reasons, this would not be a desirable international economic strategy for the United States.<sup>18</sup>

Would a large, simultaneous collective appreciation of the Asian currencies be an unambiguous gain for the United States?

We are not sure. Immediate cessation of the foreign financing of the US savings gap would translate into an immediate zero current account balance, and this would require an immediate increase in US exports and/or an immediate decrease in US imports. Exports would increase quickly only if there were substantial excess production capacity or if there were a substantial drop in domestic demand that freed up the domestic goods for sale abroad. Imports

would decrease quickly only if there were excess production capacity (to enable replacement of imports) or if there were a substantial drop in domestic demand that reduced the use of consumer goods and inputs. Since there is no substantial excess production capacity in the US economy today, the immediate elimination of the current account deficit would require a huge drop in domestic demand, which would have its origin in a large negative wealth shock, possibly in the form of a stock market collapse or an inflationary spike.<sup>19</sup>

Would the absence of a yuan appreciation cause high inflation in China, as Goldstein and Lardy (2003) claimed?

The growth of Chinese money supply has not slowed drastically despite the heightening of anti-inflation rhetoric by the Chinese government in response to the continued high growth of investment expenditure. Has the Chinese government lost control of its money supply, as a number of analysts have warned? Not at all. The speculative inflows and growth in foreign exchange reserves cannot expand the money supply without the agreement of the People's Bank of China (PBC). As well as sterilisation through open-market operations, China has the use of credit quotas on bank lending. The fact is that all Chinese banks are state controlled, and their high-ranking executives are appointed by the state. Given the choice between maximising bank profits or heeding orders from the prime minister's office, the bank chiefs can always be counted on to choose the latter. There is no question about the Communist Party of China losing control of the money supply since 2002.

Money supply growth in 2005–07 did not slow markedly because China chose not to enforce the credit quotas stringently. First, the inflation rate, although rising, is still low. Second, it is good politics to have a booming economy in the period leading up to the important seventeenth Party Congress in November 2007, which will ratify important personnel appointments for the next five years.

What is the correct level for the exchange rate?

The *Economist* magazine constructs a purchasing power parity (PPP) exchange rate based on the prices of Big Mac hamburgers sold in different countries. In 2006, it cost 10.4 yuan to buy a Big Mac in China and US\$3.15 in the United States, so the PPP exchange rate was 3.3 yuan per US dollar in 2006, compared with the actual (nominal) exchange rate of 8 yuan per US dollar. Is it, therefore, meaningful to say that the Chinese exchange rate was undervalued by almost 60 per cent in 2006? The answer is no, because the prices of the hamburgers

included non-tradable inputs, and the prices of non-tradables were lower in China than in the United States. In general, the prices of non-tradables are lower in developing economies than in industrialised economies because labour costs are lower in the former. With economic development, the prices of non-tradables in the developing economies will rise to bring the price ratio of non-tradables to tradables closer to the price ratio in the industrialised economy.

To see that the gap between the usual PPP exchange rate and the actual exchange rate reflects the development gap between the two countries, we first make the following definitions

- a) Defining the consumer price index in China and the United States

$$\begin{aligned} \text{CPI of China, } \text{CPI}^C &= (1-a) P_T^C + a P_N^C \\ \text{CPI of the United States, } \text{CPI}^U &= (1-a) P_T^U + a P_N^U \end{aligned} \quad (3)$$

where CPI is the consumer price index, C is China, U is the United States,  $P_T^i$  is the price of the tradable good in country 'i',  $P_N^i$  is the price of the non-tradable good in country 'i', and 'a' is the weight of non-tradable goods in the price index.

- b) Defining the PPP exchange rate

$$e^{PPP} = \text{CPI}^C / \text{CPI}^U \quad (4)$$

We next state the equilibrium conditions.

- a) Goods arbitrage

$$P_T^C = e^{\text{actual}} P_T^U \quad (5)$$

where  $e^{\text{actual}}$  is the actual (nominal) exchange rate expressed as the number of yuan per US dollar.

- b) Relationship between prices of tradables and non-tradables within each country

$$\text{for developing China, } P_T^C = d P_N^C$$

$$\text{for industrialised United States, } P_T^U = f P_N^U \quad (6)$$

- c) The difference between the industrialised and the developing economy is that the relative price of non-tradables is higher in the former.

$$d > f > 0 \quad (7)$$

We can now derive the following relationship between the PPP exchange rate and the actual exchange rate

$$e^{\text{PPP}} = \text{CPI}^{\text{C}} / \text{CPI}^{\text{U}}$$

$$e^{\text{PPP}} = [(1-a+af)/(1-a+ad)] e^{\text{actual}}$$

$$e^{\text{PPP}} < e^{\text{actual}} \quad (8)$$

The above exercise shows that it is conceptually difficult to determine the 'correctness' of a country's exchange rate on the basis of PPP exchange rates. The actual (nominal) exchange rate of a developing economy will always be undervalued in relation to the PPP exchange rate, and it is ludicrous to demand that the government of the developing economy set its exchange rate equal to the PPP exchange rate (because this is not a sustainable policy).

One meaningful definition of the 'correct exchange rate' is that it is the 'market-clearing exchange rate': the exchange rate that is generated by the foreign exchange markets in the absence of intervention by any central bank. The fact that the People's Bank of China has been accumulating foreign reserves during every period means that the yuan is undervalued according to this definition. What would happen, however, if China were to go further in its marketisation of foreign exchange transactions by removing its capital controls? Diversification of asset portfolios by private Chinese agents would surely result in a great outflow of funds, possibly causing the yuan to depreciate. In such a case, the present exchange rate of 8 yuan per US dollar would be overvalued compared with the 'complete free-market exchange rate'. Of course, no one knows whether the complete free-market exchange rate would be higher or lower than 8 yuan per US dollar.

Suppose the value of the complete free-market exchange rate was 6.5 yuan per US dollar and the market-clearing exchange rate with controls on capital outflows was 4.5 yuan per US dollar—and suppose the government stops intervention immediately and then removes capital controls a few years later, after it has strengthened the supervision, management and technical capability

of the domestic financial institutions. One plausible result of this particular two-step market liberalisation (which we call Option A) would be appreciation to 4.5 yuan per dollar on cessation of foreign exchange market intervention followed by depreciation to 6.5 yuan per dollar on removal of the capital controls.

Suppose China adopts another form of two-step liberalisation (Option B), incremental appreciation of the yuan and removal of the capital controls after a few years. Option B is better than Option A because the exchange rate overshooting in Option A creates an unnecessary to-and-fro movement in resources. As mentioned, the removal of capital controls could very well cause the yuan to depreciate past 8 yuan per dollar, say, to 9.5 yuan per dollar, meaning that Option A would result in very severe exchange rate overshooting compared to Option B.

In effect, the Chinese government has been implementing a form of Option B since July 2005. In our opinion, the Chinese government has chosen a speed of exchange rate adjustment that is too slow, causing the yuan to depreciate significantly against the euro. We recommend that the Chinese government increases the speed of the yuan appreciation, but not in the form of an immediate discrete 10–15 per cent appreciation as advocated by Goldstein (2007).<sup>20</sup>

In our opinion, the instinctive calls by some economists for the use of the exchange-rate mechanism to solve China's external imbalance is only partially correct. Given China's capital controls, a freely floating currency regime could mean a value for the yuan that would be greatly over-appreciated compared with what its value would be under free capital flows, and could therefore reduce economic growth significantly.<sup>21</sup> Freeing capital flows is not, however, an option at this time. Given the weakness of the balance sheets of China's state-owned banks and the considerable embezzlement of state assets that has occurred—and the experience of the East Asian financial crisis—we advise against allowing the free movement of capital in the short term.

The correct way to think about exchange-rate management is to analyse the issue within the context of overall macroeconomic management and not just in regard to its impact on the balance of payments. It is likely that there are alternative combinations of macroeconomic policies that would produce results superior to the one generated by appreciating the yuan alone. The general point is that because the balance of payments is only one of the main outcomes of concern<sup>22</sup> and the exchange rate is only one of the ways to affect the balance of payments,<sup>23</sup> it is seldom the optimum to concentrate exclusively on one policy target (which does not dominate the other policy targets in importance) and then to employ only one policy tool (which is chosen idiosyncratically) to achieve that target.

## What is to be done?

The real source of the anxieties that have given rise to the present US obsession with yuan appreciation is not the large trade imbalances but the large amount of structural adjustment necessitated by the acceleration of globalisation and of labour-saving technological progress. Dollar depreciation and trade barriers will slow the process of structural adjustment but will not stop it because the main driver of structural adjustment in the United States is technological progress. The optimal solution is a policy package that emphasises multilateral action to achieve several important objectives. It is bad economics and bad politics to dwell on just one region (China alone must change), to dwell on just one instrument (yuan appreciation alone) and to dwell entirely on one target (external imbalance).

We start by stating what should be done in the United States. Congress should quicken the reduction in fiscal imbalance, and expand trade adjustment programs, especially those that upgrade the skills of younger workers. The Trade Adjustment Assistance (TAA) program still functions inadequately after its overhaul in 2002. Lael Brainard (2007) reported that

[p]articipation has remained surprisingly low, thanks in part to confusing Department of Labor interpretations and practices that ultimately deny benefits to roughly three-quarters of workers who are certified as eligible for them. TAA has helped fewer than 75,000 new workers per year, while denying more than 40 per cent of all employers' petitions. And remarkably, the Department of Labor has interpreted the TAA statute as excluding the growing number of services workers displaced by trade. Between 2001 and 2004, an average of only 64 per cent of participants found jobs while they participated in TAA. And earnings on the new job were more than 20 per cent below those prior to displacement.

The TAA program is in clear need of further improvement. Brainard's (2007) proposal for the establishment of wage insurance is an excellent way to bring the US social safety net more in line with the type of structural adjustments driven by globalisation and technological changes.

What is to be done in China? The obvious short-term policy package has three components. First, the steady process of yuan appreciation begun in July 2005 should be quickened—and should be used more aggressively as an anti-inflation instrument. Second, import liberalisation should be accelerated (for example, commitments made in negotiations for WTO membership, such as intellectual property rights protection, should be implemented) and expanded beyond WTO specifications.

The third component of the short-term policy package is to have an expansionary fiscal policy (such as rural infrastructure investments) to soak up excess savings, with an emphasis on import-intensive investments (for example, buying aeroplanes and sending students abroad). There must be time limits put on the expanded public works and SCE investments because, in the long term, increased public investments could follow an increasingly rent-seeking path that is wasteful (for example, building a second big bridge to a low-populated island to benefit a politically connected construction company, as happened in Japan), and the increased SCE investments could convert themselves into non-performing loans at the state-owned banks.

It is now common to hear calls for China to rebalance its growth path by reducing savings to increase consumption. This advice on increasing consumption cannot be wrong, however, consumption in China today is largely under the control of individual families and firms. They have probably already tried their best to optimise their consumption given all the constraints they face, and are unlikely to welcome the government telling them how to spend their money.

Since the health insurance and social security networks in China are in their infancy, many Chinese people are choosing to save a great deal of money as a hedge against severe illness. In the absence of student-loan programs, families are also choosing to save a great deal for their children's education. Many middle-class Chinese families have bought property in anticipation of capital gains but have refrained from moving into the new property because roads, subways and schools for many newly developed residential communities are underdeveloped. These are their best choices given the structural and economic constraints on Chinese society. As a result, the consumption of Chinese households remains low and savings rates remain high. All of these factors beg the question, 'how can China increase domestic consumption?'

In the context of the above examples, the answers are quite straightforward: build an integrated health insurance system; create student-loan and scholarship programs; and build more roads, subways and schools.<sup>24</sup> The optimal solution to the problem of excess saving is not, however, for the government to absorb it by increasing its budget deficit but to establish an improved mechanism for coordinating private savings and private investments. Establishment of a modern financial system will not only achieve this objective, it will enhance welfare and lower the savings rate by pooling risks through vehicles such as medical and pension insurance. In a nutshell, China's main challenge today is to develop smoothly functioning financial, planning and regulatory systems that can employ the remaining rural surplus labour (as indicated by an average

wage of about US\$120 per month for 480 million rural and migrant workers) and surplus capital, which now shows up in China's sustained current account surplus and rising foreign exchange reserves.

The most important priority for financial-sector development is the appearance and growth of competitive domestic private banks. As China is required by its WTO accession agreement to allow foreign banks to compete against its state-owned banks on an equal basis by 2007, it would be akin to self-loathing not to allow the formation of truly private banks of domestic origin. There is no reason to favour foreign private banks over domestic private banks, and there is no reason why China should not allow its best financial minds to compete with—and achieve the same glorious success as—the best foreign financial minds.

We therefore recommend that after the recapitalisation of the big four state banks, at least two of them should be broken into several regional banks, and the majority of these regional banks should be privatised. At the same time, laws on the establishment of new banks should be loosened, and interest rates deregulated. It is crucial, however, that financial-sector liberalisation proceeds no faster than the development of the financial regulatory ability of the state. Even then, the danger of substituting a financial crash for financial repression is real. A modern financial system requires a modern system of supervision and prudential regulation for its proper functioning.

It would be a good idea to sell a few of the regional state banks to foreign banks. This would facilitate the transfer of modern banking technology to Chinese banks. The more local staff the foreign bankers train, the larger is the pool of future managers for Chinese-owned banks. An accelerated process of promoting the growth of sound domestic private financial institutions and allowing the entry of foreign financial institutions would shorten the time needed for Shanghai to assume its rightful place among the major international financial centres, and to contribute to more efficient intermediation of the world's savings.

An important part of financial reform should be promotion of the development of sound rural financial institutions. The government can usefully draw on the wealth of international experience with various schemes in developing economies to direct investment credit to rural areas. In particular, we wish to draw attention to the successful Indonesian experience of establishing a self-sustaining and profitable banking system (the 'Unit Desa' system) in the countryside to provide a starting point for discussing how to accelerate financial development in rural China.<sup>25</sup> China should allow the appearance of new small-scale rural financial institutions that will mobilise local savings to finance local investments as quickly as adequate prudential supervision can be put into place.

The widespread international attention on the value of the yuan is possibly the first time in international monetary history that the value of the currency of a developing economy has so greatly exercised the finance ministries and central banks of the largest industrialised economies for such a sustained period. This anomalous situation reveals two noteworthy points about China's return to the international stage: it shows the significant economic impact that China is already having on the world; and it portends that the anticipated continued fast growth of China in the next two decades will not only force more structural adjustments in other countries, it will require China to assume a broader 'global system' perspective in resolving disputes caused by cross-border spillovers from its policies. The most important and obvious area for collaboration between China and industrialised economies at this point is working together to further liberalise the multilateral free-trade system, and, at the minimum, to prevent it being eroded.

As China continues to grow rapidly, there is the unfortunate possibility that the range of international disputes could expand—possibly in the medium term—to include international concerns about China's public health readiness and environmental protection. Hopefully, the world will be more multilateral in its approach to the solution of these issues rather than insisting on a unilateral solution by China, as in the present case of the yuan.

## Notes

- 1 At the end of May, the National Development and Reform Commission predicted that 'China's trade surplus will swell to between US\$250 billion to US\$300 billion this year, driven by price competitiveness and strong external demand. The surplus for the first four months of this year totaled US\$63.3 billion, up 88% from the same period of last year' (*Wall Street Journal* 2007a). In mid June, it was revealed that China's overall trade surplus had widened to US\$22.45 billion in May 2007, which was a 33 per cent gain on April's figure (*Standard* 2007).
- 2 Details of these three WTO cases are found in USTR 2007a, 2007b and 2007c.
- 3 Neither the date nor the sample of newspapers was selected randomly. These were the newspapers that were on the Singapore Airlines flight from Singapore to San Francisco (via Hong Kong) on the day of our travel.
- 4 The article also reported that Peter Mandelson 'wants greater access for European companies to China and a crackdown on piracy—threatening extra tariffs or import quotas if not. He also wants the renminbi pegged to a basket of currencies.'
- 5 The US civilian labour force in 2006 was 151.4 million (United States President 2007:Table B-35).
- 6 For details and analysis of the economic transition in the former Soviet bloc and China, see the papers in Woo et al. 1997.
- 7 More accurately, the wage of the formerly isolated worker in the former Soviet Union, India and China would rise while the wage for the worker in the industrialised economy would fall.

- 8 There is a large empirical literature on the relative impact of technological changes and globalisation on the US wage rate; notable contributions include Sachs and Shatz (1994) and Feenstra and Hanson (1996 and 1998).
- 9 Akerlof (2007) is a recent discussion on 'norms' and their economic consequences.
- 10 Borjas (1994) and Ottaviano and Peri (2005) are good discussions of this topic.
- 11 The data are from the *Direction of Trade Statistics* database maintained by the International Monetary Fund (IMF 2007).
- 12 See Feenstra et al. 1999 for the details of the different national treatments. This study re-estimated the export and import data of China–US trade, and reduced the gap between the two estimates: for example, the US\$29 billion gap between the two official figures in 1996 was reduced to US\$5 billion after revision of the data.
- 13 The simple average of the *Direction of Trade Statistics* data was closer than the simple average of the official data to the simple average of the revised data of Feenstra et al. (1999); the latter two are reported in Feenstra et al. (1999:Table 1).
- 14 The SCE category covers companies that are classified as state-owned companies and joint ventures and joint-stock companies that are controlled by third parties (for example, legal persons), who are answerable to the state.
- 15 The Economist Intelligence Unit (2004:23) reported that 'farmers' propensity to save seems to have increased'.
- 16 Liu and Woo (1994) and Woo and Liu (1995) contain formal modelling and econometric support for the investment-motivated saving hypothesis.
- 17 See, for example, *Financial Times* (2003).
- 18 For one thing, serial exchange-rate activism and the surge of it are unlikely to be more successful than the expansion of the war from Afghanistan to Iraq and the surge of US military effort in Iraq in 2007.
- 19 Considerations like this might be the reason why Goldstein and Lardy (2003) and Goldstein (2007) advocated a two-step strategy of yuan appreciation: a modest appreciation followed by incremental appreciation.
- 20 Our analysis therefore leads us to agree with the three recent policy positions of the US Treasury: that China must increase the pace of reform in financial services market (Paulson 2007), that China has not engaged in currency manipulation, and that China should increase the rate of yuan appreciation.
- 21 In Robert Mundell's opinion, 'China's growth rate could fall by half and foreign direct investment (FDI) could slow to a crawl if the country were to abandon its long-standing support of pegging the currency' (quoted in *South China Morning Post* 2003).
- 22 The inflation rate and unemployment would be among the other key concerns.
- 23 Other ways include monetary and fiscal policies.
- 24 Xiao (forthcoming) discusses this issue more fully and emphasises the problem of distinguishing productive investments from non-productive investments.
- 25 Indonesia is similar to China in key economic and institutional features: a geographically vast and heavily populated economy, and a rural financial system dominated by branches of a state bank (Bank Rakyat Indonesia and Agricultural Bank of China respectively). See Woo (2005).

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