# China's changing growth pattern

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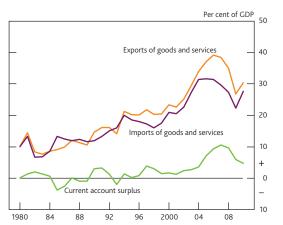
China's growth over the past 30 years has been remarkable. In part, that reflects a strategy pursued by many emerging market economies in the past with a focus on expanding exports. More recently, China's current account surplus has shrunk, reflecting the collapse in world trade during the financial crisis, and the domestic stimulus China introduced in response. This article discusses China's previous growth pattern and asks whether the nascent rebalancing will be sustained, considering implications for the rest of the world.

#### Introduction

China's growth strategy has been remarkably successful over the past 30 years: real GDP per head has increased almost thirtyfold;<sup>(2)</sup> the fraction of the population living on less than a dollar a day has fallen from around two thirds to around one tenth;(3) and China's share of world GDP rose to 13% in 2010 from 2% in 1980, even as its share of the world's population fell to 20% from 25% (IMF (2010)).

Over the same period, China's GDP growth has become much more focused on external trade and investment. Between 1980 and 2000, the share of gross exports and imports in China's GDP increased steadily (Chart 1). But between 2001 and 2007 the trade share, and particularly the share of exports, increased much more rapidly. That led to a widening of the current account surplus and, more recently, to China emerging as the world's largest exporter. These trends were mirrored by a rise in China's national savings rate.

Chart 1 China's trade and current account



Sources: IMF World Economic Outlook (WEO) database, October 2010 and Bank calculations The 2010 numbers are IMF staff estimates.

The increase in China's current account surplus was part of a widening of global imbalances prior to the world financial crisis. A number of advanced countries experienced growing current account imbalances, among them the United States and United Kingdom which had current account deficits of 5.1% and 2.6% of GDP in 2007, respectively. The substantial global macroeconomic imbalances, and the capital flows associated with them over the past decade, have been identified as causes of recent financial instability (Astley et al (2009), King (2011) and Wolf (2008)). In response, the Group of Twenty (G20) has discussed the pattern of global imbalances and is considering ways to make the global economy more balanced. As G20 host for 2011, France has made this discussion one of the central elements of its agenda.

China's current account has already shrunk considerably since the start of the global financial crisis, falling to 5% of GDP in 2010 compared to 11% in 2007 (Chart 1). This reflected both the collapse in world trade at the start of the financial crisis and a substantial domestic stimulus subsequently introduced by the Chinese authorities.

The Chinese authorities see rebalancing away from exports and investment, and towards consumption, as desirable in the long term. A growth strategy based on exports and investment rising as a proportion of GDP cannot be sustained indefinitely. Premier Wen Jiabao has said that to 'unleash domestic demand holds the key to long-term and steady development of China's economy' (Wen (2010)). It is not clear, however, whether the rebalancing following the financial crisis will be sustained in the short term. As this article

<sup>(1)</sup> The authors would like to thank Rachana Shanbhogue and William Speller for their help in producing this article.

<sup>(2)</sup> IMF (2010), measured at purchasing power parities.

<sup>(3)</sup> World Bank (2009), measured at purchasing power parities.

discusses, that will depend on the authorities' policy choices and developments in the rest of the world.

China's growth pattern matters for the rest of the world. Any path towards global rebalancing will, by definition, mean that rebalancing in deficit countries will be a mirror of that in surplus countries. Therefore the rebalancing of China's economy, and the speed with which that is achieved, will have an important bearing on the export prospects of other countries, including those such as the United Kingdom that are currently running a current account deficit and wish to rebalance their economies towards net exports. It is therefore perhaps not surprising that, as King (2011) notes, countries running a current account deficit tend to have a preference for a faster pace of rebalancing than surplus countries where structural changes are required.

The rest of the article is structured as follows. The first section looks at the composition of China's GDP growth in the decade leading up to the world financial crisis, during which exports and investment grew rapidly. The second considers the factors behind China's high savings rate. The third describes China's rebalancing since the start of the crisis. The fourth section considers whether this rebalancing can be sustained. And the final section puts China's rebalancing in a global context.

### China's growth pattern: 1997–2007

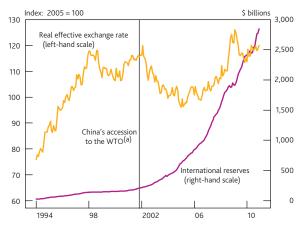
China's growth strategy of export promotion has had marked consequences for the country's growth pattern. While net exports have tended to only make small contributions to growth, the policies designed to promote exports also encouraged rapid investment growth.

#### China's 'export promotion' growth strategy

An export-oriented growth strategy involves promoting exports by reducing trade barriers, and sometimes subsidising (explicitly or implicitly) exports (see Todaro and Smith (2006) and Rajan (2010)). It also typically involves high levels of investment as the production of tradable manufactured goods tends to be relatively capital-intensive.

By this definition, China has followed an export promotion strategy for most of the past 30 years and, in particular, in the decade leading up to the world financial crisis (Branstetter and Lardy (2006)). China joined the World Trade Organisation (WTO) in 2001, which led to a reduction in trade barriers and a removal of explicit export subsidies. Around this time, however, it also started to accumulate foreign exchange reserves at a much faster pace (Chart 2). This offset the upward pressure on the renminbi from China's rising competitiveness, supporting exports and making imports more expensive. Despite the renminbi's nominal appreciation between 2005 and 2009, it remains around its 2001 level in real trade-weighted terms.

Chart 2 China's international reserves and exchange rate



Sources: Bank for International Settlements and Thomson Reuters Datastream.

(a) 11 December 2001

China has not been alone in pursuing an export promotion growth strategy — Japan and several other Asian economies have followed similar models in the recent past, as did some advanced economies, such as the United Kingdom, in the early stages of industrialisation. There are a number of good reasons why countries might want to follow export-oriented growth strategies. First, and most importantly, it allows a developing country to tap foreign demand for goods for which the domestic market is initially small. This lets them grow much more rapidly than would otherwise be the case. Moreover, trade liberalisation can allow countries to take advantage of gains from trade by specialising in their comparative advantage (Ricardo (1817)), thereby increasing overall productivity.

But this is not the full story. Rodrik (2006) finds that China, similar to some other export-oriented countries, has to some extent avoided specialising in its initial comparative advantage, which lies in its abundant supply of labour. In particular, it exports far more sophisticated — and capital-intensive — manufactured goods than might be expected given its large potential labour force and low level of labour cost.

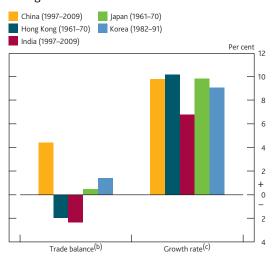
Rodrik argues that this specialisation in tradable manufactured goods — 'industrial tradables' — has been an important contributor to growth in countries that have pursued export-oriented growth strategies, including China. These industries may be important in generating positive productivity spillovers, for example through technology transfer and learning. Typically, in developing countries these industries tend to be hampered by weaknesses in institutional arrangements, infrastructure and human capital. Circumventing these market failures by subsidising industrial tradables could thus provide a 'second-best' solution to kick start these industries and increase productivity.

Encouraging foreign direct investment (FDI) into China has played an important role in China's export promotion

strategy. FDI inflows to China reached \$148 billion in 2008, up from \$3.4 billion in 1989. Most of the FDI has gone into the manufacturing sector, as flows into the service sector have faced more restrictions (Long (2005)). Clusters of production have formed, allowing firms to take advantage of industry-wide increasing returns to scale. China has also become a hub for the production of manufactured exports with foreign firms taking advantage of low labour costs and China's proximity to other Asian countries.

While China's growth strategy is in many ways similar to that pursued by other economies in the past, one difference is the size of the current account surplus that China has run. The experience of other Asian economies suggests that a strategy of promoting the tradables sector does not, in itself, necessarily lead to a current account or trade surplus. A number of these countries imported substantial quantities of raw materials, capital goods and machinery as they grew (Rajan (2010)). Indeed, during comparable phases of their growth strategies, trade balances have been broadly balanced or even in deficit (Chart 3).

**Chart 3** International comparisons of trade balance and GDP growth<sup>(a)</sup>



Sources: Thomson Reuters Datastream and Bank calculations.

- (a) Periods of fastest-growing decades taken from Razmi (2008). Periods for China and India have been updated.
- (b) Period average of the external balance on goods and services as a percentage of GDP. (c) Period average of annual GDP growth.

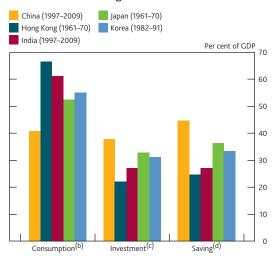
Different means of promoting the tradables sector have different implications for the current account. Trade liberalisation can increase gross production of tradables without necessarily affecting the trade balance. Following its accession to the WTO in 2001, trade liberalisation in China likely contributed to the rapid increase in both the country's gross exports and imports. WTO rules also constrained China's use of direct production subsidies to support exports. As a consequence, China's intervention in the foreign exchange market to limit the degree of currency appreciation may be seen as an alternative means of promoting exports. By increasing the domestic price of foreign goods and reducing

the foreign price of domestic goods, this has tended to increase China's trade surplus and change the composition of internal demand.

#### The composition of demand

China's unusually large current account surplus is mirrored in a correspondingly low proportion of spending on domestic demand. China's household consumption as a per cent of GDP is lower than that of other Asian countries during similar stages of development. It has fallen from 51% of GDP in 1985 to 35% of GDP in 2009. This, in part, reflects relatively high Chinese gross domestic savings (defined as all public and private sector saving), which has allowed China to invest a higher proportion of its GDP compared to other countries at a similar stage of development (Chart 4). It also mirrors a decrease in household disposable income relative to GDP.

Chart 4 International comparison of consumption, investment and savings(a)



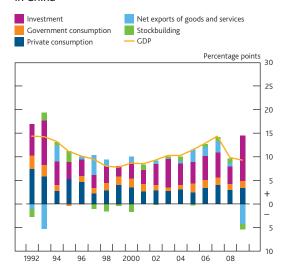
Sources: Thomson Reuters Datastream and Bank calculations

- (a) Periods of fastest-growing decades taken from Razmi (2008). Periods for China and India have been undated
- (b) Period average of household final consumption expenditure, except for Hong Kong which is from 1965 to 1970.
- (c) Period average of gross fixed capital formation, except for Hong Kong which is from 1965 to 1970.
- (d) Period average of gross domestic savings.

In terms of contributions to GDP growth, net trade has made relatively small but consistently positive contributions over the past decade (except for 2009), while consumption has made a steady contribution to growth. Investment has made the largest contribution (Chart 5). Moreover, the relatively slower growth of consumption meant that the extra supply capacity arising from rapid investment was not fully absorbed. Thus China has had to rely to some degree on external demand and a widening trade surplus to absorb additional supply. The other side of the same story is that strong investment, in part, reflects the promotion of exports which are more capital-intensive.

Growth has been heavily dependent on capital deepening: Prasad (2009) suggests that employment only grew by 1% per annum between 2000 and 2008 — one tenth of China's GDP

Chart 5 Contributions to annual real GDP growth in China



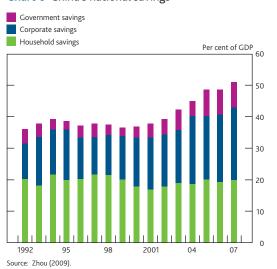
Sources: IMF WEO database, October 2010, IMF staff estimates and Bank calculations

growth rate. The 2010 OECD *Economic Survey of China* reviews studies on the composition of GDP growth and comes to the conclusion that the growth of physical capital accounted for almost 50% of total growth and labour for only a little over 10% over recent decades (although this would be somewhat higher if the increased quality of labour was taken into account). Total factor productivity contributed the remaining growth, partly driven by the reallocation of labour from the rural sector to manufacturing.

# Why is China's savings rate so high?

As noted before, China's gross savings are high compared to other countries, explaining why the country's current account surplus has been large despite high investment. But it is not only China's households that have contributed to the high national savings rate. Indeed, the household savings rate has been broadly unchanged since the early 1990s as a proportion of GDP, whereas corporate and government savings have

Chart 6 China's national savings



increased (Chart 6).(1) China is unique among its Asian counterparts with respect to both the overall scale and composition of its savings. All three sectoral components (household, corporate and government) are near the highest in the region (Qiao and Song (2009)).

#### Household savings

While household savings have not been the key driver behind the rise in aggregate savings, the household savings rate — standing at nearly 30% of disposable income in 2009 for urban households — is high by international comparison. Precautionary motives appear to be behind much of this. Households' savings decisions reflect concerns over the so-called 'three mountains' — education, pensions and healthcare — following the decline in the provision of public services (Blanchard and Giavazzi (2006) and Chamon and Prasad (2008)).

Such concerns are particularly prevalent among older generations who have lived through extremely turbulent times and, since 1978, seen state support for healthcare, pensions and education reduced during reforms of state-owned enterprises (SOEs). The introduction of the one-child policy in the late 1970s also implied an increased need for old-age self-provisioning. But the evidence for any inherent bias in China for high savings is weak. Modigliani and Cao (2004) find evidence that households only saved about 5% of their income before 1978. And in contrast to the old, the middle-aged and young may come to decide that they can rely on steady growth in income to build up the required savings. This may partly explain the evidence presented in Chamon and Prasad (2008), showing that middle-aged Chinese households, contrary to those in other countries, save relatively less than the old and young. For the young, the precautionary savings motives discussed above may outweigh the income effect.

Nevertheless, aggregate household savings remain high. And besides limited social safety nets and these demographic factors, domestic regulation has also played a role. In particular, limited competition in the service sector and hence a lack of service provision may be constraining consumption and boosting saving. While SOEs face tough competition from private companies in most industrial sectors, the 2010 OECD Economic Survey of China suggests that barriers to entry remain high in some service sector industries, such as banking, telecommunications and the media. Services contributed just over 40% to GDP in 2009. This is low compared to other developing countries such as India and Brazil where services make up around 55% and nearly 70% of GDP, respectively. But it is similar to other export-oriented economies at a comparable stage of development. Moreover, the current level of financial sector development and regulation means that households have to save more in order to build up pension

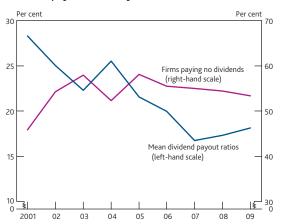
However, aggregate Chinese data do not always correspond to more granular data.
 See, for example, Bayoumi, Tong and Wei (2010).

cushions: interest rates on savings accounts are capped by regulation and opportunities to invest in other financial assets are limited. Credit is also not readily available to many households, implying the need for higher savings to purchase a house or consumer goods.

#### Corporate savings

The high level of China's corporate savings rate is linked to firms' tendency to retain earnings. According to Worldscope data, over half of listed Chinese industrial firms did not pay a dividend over the past decade (Chart 7).<sup>(1)</sup> This compares to an average of around 35% for a sample of four other Asian countries.<sup>(2)</sup> And the dividend payout ratio, which shows the percentage of earnings paid to shareholders in dividends, declined by roughly 10 percentage points since 2001.

Chart 7 Percentage of firms paying no dividends and dividend payout ratios by listed Chinese firms<sup>(a)</sup>



Sources: Worldscope Thomson Reuters Datastream and Bank calculations.

(a) The chart shows dividend payout ratios, defined as dividends over earnings per share, and firms paying no dividends for a rolling sample of listed Chinese firms. The sample covers those firms in the Worldscope database as of 31 January 2011.

Given the role of retained earnings, growth in corporate savings is closely linked to growth in corporate profits.

Corporates have enjoyed profit growth of around 30% per annum since 2000, significantly outperforming wage growth, which averaged 15% per annum. Part of the explanation for strong profit growth lies in the large pool of surplus rural labour which has suppressed wage growth and boosted profits.

The growth of private firms has also been a factor driving profit growth (Kuijs (2006)). The increasing importance of small private firms may, moreover, be an explanation for why earning retention has increased. Small firms tend not to have access to bank finance to the extent that large SOEs do. They are therefore more reliant on retaining earnings to finance investment.

In addition, the increased efficiency of SOEs (Kuijs (2006)) as well as government support may have boosted profitability in the non-private corporate sector. By depressing the value of the nominal exchange rate, official purchases of foreign currency have supported relative competitiveness and thus the

corporate profits of exporters and import-competing firms. Low borrowing rates — the consequence of a heavily regulated financial system — may have also played a role in lifting corporate profits, particularly for SOEs. Between 1992 and 2007, net interest payments by the non-financial corporate sector more than halved as a share of GDP, contributing 30% of the rise in corporate savings (Ma and Yi (2010)).

#### **Government savings**

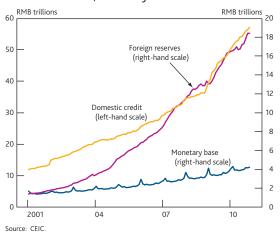
Government savings have been a relatively small and, in the period leading up to the global financial crisis, fast-growing component of China's national savings. They accounted for around a quarter of the overall increase in national savings between 1992 and 2007 (Chart 6). Rising government savings have reflected a combination of higher government income thanks to strong economic growth, tax reform, land sales and higher social welfare contributions from the private sector and a flat government consumption to GDP ratio (Ma and Yi (2010) and Qiao and Song (2009)).

# China's recent rebalancing

There are signs that China's growth model has, at least temporarily, shifted course. Since the start of the global financial crisis, China's external imbalances have narrowed sharply, with the current account surplus falling to 5% of GDP in 2010, from 11% in 2007 (Chart 1).

The value of China's exports fell by 16.7% between October 2008 and November 2009, largely reflecting a fall in external demand. China's policymakers compensated with a significant fiscal stimulus to maintain growth and employment, worth around RMB 4 trillion or 12% of GDP over two years. This was, in part, financed through bank borrowing by local governments. The central government budget, which had been in surplus of 6.1% in 2007, moved to a deficit of 2.3% of GDP in 2009, while bank lending increased by 31.7% in that

Chart 8 Reserves, monetary base and domestic credit



<sup>(1)</sup> The profits of Chinese listed firms accounted for 36% of all enterprise profits in 2008 (Bayoumi, Tong and Wei (2010)).

<sup>(2)</sup> India, Japan, Korea and Singapore

year (Chart 8). Bank lending expanded rapidly through 2010 as well, reflecting the continuation of projects started in 2009. But to the extent that rapid credit growth could place upward pressure on inflation, this rate of growth is unlikely to be sustained. Indeed, Chinese authorities have sought to tighten monetary policy over the past year.

The stimulus packages contained a number of measures aimed at boosting both investment and consumption, leading to a reduction in the current account surplus.

#### Investment

A major part of the stimulus package announced in 2008 related to investment, particularly in infrastructure. These measures included upgrading railways, roads, airports and power grid infrastructure, reconstruction in Sichuan following the devastating earthquake there, rural and ecological projects, and additional funding for research and development. By boosting demand for commodities and hence raising import growth, some of these policies directly contributed to the decline in China's current account surplus.

Moreover, these measures boosted China's domestic demand in 2009 and 2010 without leading to further capacity in export sectors. Over time, infrastructure investment in particular may help rebalancing if inland regions, which are less export orientated, can develop more quickly.

#### Consumption

Some stimulus measures were aimed at boosting consumption. The government directly subsidised purchases of some consumer durables. Perhaps most strikingly, purchases of cars in 2010 were 92.4% higher than in 2008, at least in part reflecting government-financed discounts for traded-in cars and fuel-efficient cars. The Chinese Ministry of Commerce estimated that central government would allocate more than RMB 80 billion (0.2% of GDP) to direct consumption subsidies in 2010. The central government also took a number of steps to boost the income of poorer households directly, and some provincial governments raised minimum wages.

The government funded a number of new social support schemes which may contribute to a reduction in household savings in the future. In November 2008, the government allocated RMB 900 billion (2.9% of GDP) to constructing affordable housing. It also initiated a three-year healthcare plan with a focus on medical infrastructure in rural areas. In 2009, it introduced a rural pension scheme and made it possible to transfer pension accounts across regions.

The direct subsidies to households will have boosted consumption in the short term. And the structural reforms should increase consumption and reduce savings over the longer term. For example, increases in minimum wages,

reforms to healthcare and the pension system, as well as relaxation of the 'hukou' registration system that has restricted migrant workers' ability to permanently settle in cities, could reduce household savings and boost consumption.

# Is the recent rebalancing likely to be sustained and extended?

Whether the rebalancing towards domestic demand during the crisis will be sustained will depend on what replaces the temporary stimulus-related demand. And that will depend on the speed with which the Chinese authorities want to shift the country's growth pattern.

Building on the recent reforms and stimulus measures, China's twelfth five-year plan, ratified in March 2011, included the broad goal of 'a new growth pattern that is jointly driven by consumption, investment and exports'. But it is not clear how quickly the authorities will want to, and will be able to, reorient the drivers of growth towards more consumption and away from investment and exports. In the short term, they may see benefits in reverting to a reliance on the latter.

China's primary economic policy goal is to maintain full employment with rapid economic development. Guo and N'Diaye (2009a) argue that new (and likely more) employment opportunities would follow structural rebalancing as domestic markets replace external ones. But shifting capacity to the domestic sector, in particular services, might entail a temporary increase in unemployment, for example if skill mismatches mean that, in the short run, workers cannot seamlessly switch between sectors.

Nonetheless, a return to the previous export-oriented growth pattern may be difficult to sustain for several reasons.

First, under some circumstances, exchange rate intervention to limit a currency's appreciation can generate inflationary pressures — leading to real exchange rate appreciation, even without appreciation of the nominal exchange rate. Purchases of foreign exchange by the central bank typically lead to increases in the domestic money supply as foreign currency is bought with domestic currency. In normal circumstances, that would eventually increase credit growth and put upward pressure on inflation. That, in turn, would increase the production costs of exports, leading to an appreciation of the real exchange rate and a reduction in the trade surplus.

Over the period 2001–09, China's reserve accumulation did not feed into a substantial rise in inflation. This was because it was largely sterilised, ie offset by selling domestic bonds such that the monetary base was increasing much more slowly than reserves (Chart 8). Furthermore, quantitative restrictions on bank lending mean that the relationship between changes in the monetary base and credit growth may be loose. For

example, in early 2009 bank lending increased, reflecting the 2009 stimulus package as discussed above, despite little change in the trend of the monetary base (Chart 8).

But sterilisation does have fiscal costs. If central bank sterilisation bonds are sold with a yield above that on the foreign currency assets purchased, there is a net cost to the government. Given China's large stock of foreign exchange reserves and the low yields on US Treasury bonds, these fiscal costs could be substantial. That cost could be transferred to banks by requiring them to purchase the bonds at submarket yields, but as China's banks are largely state owned, this has little impact on the government's consolidated balance sheet. Furthermore, by increasing the supply of local currency bonds, sterilisation can increase domestic interest rates, thus attracting further capital inflows and increasing pressure for currency appreciation. This suggests that large-scale sterilisation may be increasingly costly in the long term.

Second, for exports to remain at the present proportion of China's GDP they would have to increase as a share of world GDP. This reflects the fact that China's GDP tends to grow much faster than world GDP. One way to do this would be by reducing export prices further. But Guo and N'Diaye (2009b) argue that the scope for this is limited, relative to what would be needed, as productivity growth and profit margins have already slowed over recent years in key export sectors. So in order to further increase its world export market share, China must break into new markets or keep increasing the share of value that is added domestically to exports — in other words, reduce the import content of exports.

Indeed, according to Guo and N'Diaye (2009b), China has already made progress in recent years in moving up the value chain. However, they conclude from the experiences of Asian economies that had similar export-oriented growth, such as Japan and Korea, that China cannot raise its market share continually. China's world export market share stands at around 10%, higher than Japan's peak share in 1986. Although China's large labour force suggests that its limiting market share may be above that of other countries, raising the share is likely to become increasingly challenging as China's dominance of markets grows — China already exports more than any other country.

Third, there is a risk that China's high investment rate will lead to overcapacity. A 2009 European Chamber of Commerce report found that there was 'severe overcapacity' in the steel, aluminium, cement and chemical sectors. There are, however, other sectors in which there appears to be potential for productive investment — for example, in transport infrastructure and energy. Whether such savings will be channelled into productive domestic investment will depend, to a large extent, on the quality of the banking system.

So there are some risks associated with rebalancing, which might make the Chinese authorities reluctant to move quickly. But it is unclear that a return to an export-oriented strategy of the same intensity as in the past, would be sustainable in the longer run.

If domestic demand growth does indeed increase, net exports would need to fall as a proportion of GDP in order to prevent the economy from overheating. That would require a shift in relative prices, either through an increase in the domestic price level or through an appreciation of the nominal effective exchange rate. Given the costs and risks of high inflation, the authorities recognise the benefits of nominal exchange rate flexibility. The Deputy Governor of the People's Bank of China, Hu Xiaoloan, recently stated, 'China cannot afford to lose monetary policy independence and subject itself to the economic policies of other countries. Adopting a more flexible exchange rate regime serves China's long-term interests as the benefits of long-term price stability and economic restructuring far exceed the cost in reorganising certain industries and removing outdated capacities.'(1)

## China's rebalancing in a global context

At the 2009 Pittsburgh summit, the G20 set a goal of achieving 'strong, sustainable and balanced global growth'. That will require both internal and external rebalancing by a number of countries. Private demand growth in advanced economies remains subdued, in part reflecting deleveraging in the wake of the crisis. That weakness has been partially offset by increases in government expenditure and narrowing trade deficits. Going forward, advanced-economy fiscal deficits are likely to fall — some countries are already embarking on fiscal consolidations. Prospects for external demand in advanced economies will therefore play an important role in determining the strength and sustainability of their recoveries.

The G20 has said that tackling global imbalances will be crucial in preventing a recurrence of the recent financial crisis. Before the crisis, capital flows from surplus to deficit countries contributed to a misallocation of funds and the underpricing of risk, generating substantial vulnerabilities in the global economy (see, for example, Astley *et al* (2009), King (2011) and Wolf (2008)). Reducing global imbalances — together with financial sector reform — could help to prevent such vulnerabilities building up again in the future.

The Chinese authorities have recognised the need for rebalancing. In 2009, Premier Wen Jiabao said that China should 'enhance the role of domestic demand, especially final consumption, in spurring growth' (Wen (2009)). But different adjustment paths are desirable for different countries as

discussed in King (2011). Surplus countries faced with structural change, such as China, may prefer a slower path of adjustment than deficit countries, which are under immediate pressure to reduce the burden of debt in both private and

public sectors. Finding and following an adjustment path acceptable to both surplus and deficit countries will determine whether the world's recovery will indeed be 'strong, sustainable and balanced'.

#### References

Astley, M, Giese, J, Hume, M and Kubelec, C (2009), 'Global imbalances and the financial crisis', *Bank of England Quarterly Bulletin*, Vol. 49, No. 3, pages 178–90.

Bayoumi, T, Tong, H and Wei, S (2010), 'The Chinese corporate savings puzzle: a firm-level cross-country perspective', NBER Working Paper no. 16432.

**Blanchard, O and Giavazzi, F (2006)**, 'Rebalancing growth in China: a three-handed approach', *China and World Economy*, Vol. 14, No. 4, pages 1–20.

**Branstetter, L and Lardy, N (2006)**, 'China's embrace of globalization', *NBER Working Paper no.* 12373.

**Chamon, M and Prasad, E (2008)**, 'Why are saving rates of urban households in China rising?', *NBER Working Paper no. 14546*.

**European Chamber of Commerce (2009)**, 'Overcapacity in China — causes, impacts and recommendations', November, available at www.europeanchamber.com.cn/images/documents/marketing\_department/beijing/publications/overcapacity\_en.pdf.

**Guo, K and N'Diaye, P (2009a)**, 'Employment effects of growth rebalancing in China', *IMF Working Paper no. 169*.

**Guo, K and N'Diaye, P (2009b)**, 'Is China's export-oriented growth sustainable?', *IMF Working Paper no. 172*.

**Hu, X (2010)**, 'Exchange rate regime reform and monetary policy effectiveness', July, available at www.pbc.gov.cn/publish/english/956/2010/20100804100116452770088/20100804100116452770088\_.html.

**IMF (2010)**, World Economic Outlook: Recovery, Risk, and Rebalancing, October.

**King, M (2011)**, 'Global imbalances: the perspective of the Bank of England', Banque de France *Financial Stability Review*, No. 15, February, pages 73–80, republished in this *Bulletin* on pages 43–48.

**Kuijs**, L **(2006)**, 'How will China's saving-investment balance evolve?', *World Bank Policy Research Working Paper no.* 3958, July.

**Long, G (2005),** 'China's policies on FDI: review and evaluation', in Moran, T H, Graham, E M and Blomström, M (eds), *Does foreign direct investment promote development?*.

Ma, G and Yi, W (2010), 'China's high saving rate: myth and reality', BIS Working Paper no. 312.

Modigliani, F and Cao, S L (2004), 'The Chinese saving puzzle and the life-cycle hypothesis', *Journal of Economic Literature*, Vol. 42, March, pages 145–70.

OECD (2010), Economic Survey of China, February.

**Prasad, E S (2009)**, 'Rebalancing growth in Asia', *NBER Working Paper no. 15169*.

Qiao, H and Song, Y (2009), 'China's savings rate and its long-term outlook', Goldman Sachs Global Economics Paper no. 191.

Rajan, R (2010), Fault lines, Princeton University Press.

Razmi, A (2008), 'Is the Chinese investment and export-led growth model sustainable? Some rising concerns', *University of Massachusetts Working Paper no. 22*.

**Ricardo**, **D** (1817), On the principles of political economy and taxation.

Rodrik, D (2006), 'What's so special about China's exports?', NBER Working Paper no. 11947.

**Todaro, M P and Smith, S C (2006)**, *Economic development*, Pearson Addison Wesley.

Wen, J (2009), 'Build up in an all-round way the internal dynamism of China's economic development', speech at the World Economic Forum Annual Meeting of New Champions, 10 September, available at www.china-embassy.org/eng/zt/768675/xw/t583659.htm.

Wen, J (2010), 'Consolidate the upward momentum and promote sustained growth', 13 September, available at www.ccchina.gov.cn/en/NewsInfo.asp?NewsId=25436.

Wolf, M (2008), Fixing global finance, Yale University Press.

World Bank (2009), 'From poor areas to poor people: China's evolving poverty reduction agenda: an assessment of poverty and inequality in China', March.

**Zhou, X (2009)**, 'Address at the Global Think-tank Summit', People's Bank of China, July, available at www.pbc.gov.cn/image\_public/UserFiles/english/upload/File/AddressattheGlobalThink-tankSummit%5B1%5D..pdf.