6 China's Saving and Global Economic Performance[1]

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Introduction

During the past decade, China's excess saving became a major source of finance for the high levels of net debt in the industrialised world. Indeed, after 2005 and, particularly, in the immediate aftermath of the GFC it became the dominant single source. Yet China's net saving abroad has been slowing as domestic debt rises and both its current account surplus and its rate of foreign reserve accumulation contract. The slower and more 'inward focused' growth prospects for China (Tyers 2012) will further reduce its excess saving over time. Combined with a similar trend in Japan, this brings an end to the era of the Asian 'savings glut',[2] which, other things being equal, must raise the global cost of debt. Although the signs of an associated tightening in global financial markets seem beyond the horizon at present, this is because of the 'quantitative easing' (QE) being carried out by the central banks of the largest three economic blocs, the European Union (EU), the United States and Japan. Governments in these economies continue to issue new debt but this debt is increasingly acquired by their central banks rather than foreign institutions. Since the GFC, notwithstanding their liquidity traps, the central banks of these regions have expanded their balance sheets at least two-fold and these expansions continue.[3]

This increase in the global supply of the key currencies has only been possible because sustained uncertainties surrounding government finance in all the regions, combined with underlying deflation, have induced global portfolio holders to maintain unprecedented shares of 'safe assets', namely money and related short financial instruments. Yet this will change and, when it does, the major central banks will have a lot of liquidity to mop up. Because of their recent adoption of QE, their balance sheets are heavy with long-maturity financial instruments that must eventually come back to the market and, when they do, yields will rise quickly. This is significant since it is the long instruments that are both extensively traded internationally and close substitutes for equities in

2 See Bernanke (2005), Chinn and Ito (2007), Choi et al. (2008) and Ito (2009).
3 Until 2013, Japan's expansion since 2000 was proportionally smaller.

all three economic blocs. Once returned to markets these will likely create a glut of long instruments, curtailing investment financing more directly than would occur under a more conventional monetary contraction.

Given that newly cheap energy in the United States suggests it could lead the northern recovery, much then depends on the implications of slower Chinese saving growth for US capital markets and investment. It certainly means that the demand for long-maturity bonds will fall, exacerbating the glut in their markets and restricting investment credit. Moreover, China's swapping of US$ reserve assets for central government bonds, and the ceding of the US$ assets to the China Investment Corporation (CIC), which began in 2007, changes the criteria driving outward financial flows, including and particularly FDI, shifting the distribution of China's foreign asset portfolio away from the United States. In the end, this will mean the brunt of any continuation in the decline in Chinese savings will fall disproportionally on the United States, possibly stifling its recovery. Of course, the effects of this pessimistic scenario could be offset by effective fiscal consolidation in the United States and the other large economic blocs so that global debt falls as global saving falls, leading to a soft landing for private investment.

In this chapter these issues are quantified and analysed using elemental macroeconomics. The next section reviews the trends in domestic economic structure and growth policy in China and their consequences for excess saving there. Section 3 then examines the pattern of China's excess saving through time and the underlying trends behind our expectation that it will decline over time. The focus turns to the global economy and its recent performance in Section 4. The rise in China's international significance in relation to the corresponding scale and performance of the United States, the European Union and Japan is discussed. It also offers a macroeconomic analysis of the effects of further declines in Chinese excess saving and their likely interaction with the unwinding of QE policies in those economic blocs. Conclusions are summarised in Section 5.

China's Economic 'Rebalancing' and its Excess Saving

There is wide agreement outside China, and more recent concurrence inside, that China's growth will, and should, be increasingly underpinned by rising home consumption rather than exports.[4] The foreign viewpoint is mercantilist

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4   For the foreign, and particularly the US, perspective see Bergsten et al. (2008) and Lardy (2006, 2012). For the Chinese official line on the 'rebalancing' of its economy, including its external accounts, see Wen (2007, 2011) and Yi (2011).

and is taken notwithstanding the considerable contributions of China's export-led growth to improvements in the foreign terms of trade and to cheaper financing of investment and government spending. In China's large trading partners, the dominant political force behind this view seems to be concern over declining overall economic performance, at least compared with China, high unemployment and the visible nature of 'offshoring'.[5] Moreover, the mutual benefits from China's heretofore export-led growth strategy (Dooley et al. 2004) do appear now to be short-lived because of its sheer size. As Figure 6.1 shows, China's exports have grown rapidly since the turn of the century and now dominate world trade in light manufactures.
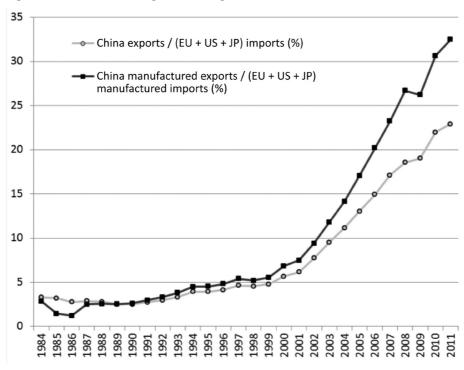
Figure 6.1 China is no longer small in global trade

Source: World Bank http//:data.worldbank.org

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5   Foreign animus toward China's economic policy regime has been further inflamed by the large current account surpluses of the last decade and the perspective of some in the West that China's political system denies basic human rights or, of others, that its large government and defence forces represent a strategic threat. See Tyers (2012).

'Looking Inward' for Further Growth

Superficially, it would seem that a switch to domestically driven growth should be possible, just by consuming more and exporting less. But this simple idea is problematic for two reasons. First, the export-led growth strategy focuses production on light manufacturing, while China's growing middle class demands motor vehicles and high quality services that include transport, telecommunications, health and education. Its existing industries cannot suddenly diversify their output toward these products. Second, rising consumption implies reduced saving and this could tighten the global financial capital market at a time when it would be least opportune to do so.

Beyond this, there are further risks associated with a 'looking inward' strategy. Too rapid change in structure and ethos could be destabilising within China, where it is argued there looms the threat of the 'middle-income trap', which is widely ascribed to other developing regions.[6] Contractionary forces include the tightening of labour markets—foreshadowing a Lewis 'turning point',[7] associated with the depletion of mobile labour in rural areas and the demographic contraction stemming from China's 'one child policy', shown in Figure 6.2. In addition, there are the high environmental costs associated with China's manufacturing expansion, which are not yet fully covered, and the increased income inequality that is associated with rents in the state-owned sector.[8] This inequality coincides with socioeconomic stratification in China's periphery, which has precipitated increased class, ethnic and regional conflicts.

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6   Key elements of a growing literature include Easterly (2001), World Bank (2010), Eichengreen et al. (2011), Riedel (2011) and Robertson and Ye (2013).

7   The timing of China's Lewis turning point is a subject of controversy, as suggested by the contrasts between the views expressed by: Cai (2010), Garnaut (2010) and Golley and Meng (2011), and these are only a sample of a substantial literature. There is, however, little doubt that the turning point is on its way, even if there is little agreement as to whether recent real wage rises suggest its presence.

8   For a discussion of the institutional and industrial reform agenda and its difficulty, see for example Tyers and Lu (2008), Riedel (2011) and Deer and Song (2012).
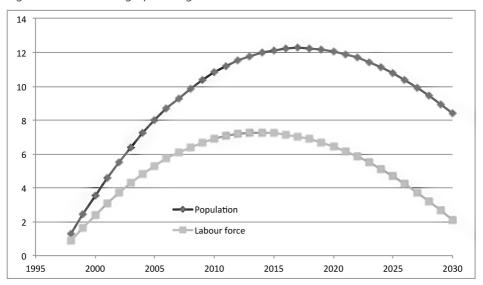
Figure 6.2 The demographic origins of China's slowdown[a]

a Indices of mainland China's labour force and its population, model projections.
Source: Golley and Tyers (2012).

There are, nonetheless, substantial potential gains from further industrial reform, stemming mainly from reductions in rents in protected sections of the economy and the associated reductions in costs and prices. These extend across the comparatively protected services and heavy-manufacturing industries that continue to be dominated by state-owned enterprises (SOEs). Alternative inward-focused policy approaches include expanded government service provision (which could imply less government saving), accelerated human capital growth to reduce costs in services and heavy manufacturing and the revitalisation of stalled industrial reforms in these same sectors. Included are further pure privatisation, the fragmentation of SOEs to induce more competitive pricing, price cap regulation and greater access to services and heavy manufacturing by foreign investors. Because the oligopoly rents earned in these sectors are linked to corporate saving (Kuijs 2006, Song et al. 2011), the latter is comparatively large in China, last measured at about one-fifth of GDP. Industry policy reforms that foster further privatisation, or that otherwise reduce oligopoly rents, are readily shown to reduce the aggregate level of Chinese saving by amounts sufficient to eliminate its current account surplus and hence its provision of excess saving to the global economy (Tyers 2012).

The Components of Saving and China's External Accounts

National saving includes that by households, corporations and government. Savings that exceed the value of domestic private and public investment result in a current account surplus and the net acquisition of foreign assets. The excess saving is therefore the value of the net foreign acquisitions as is clear from the identity:

$$(1) \quad CA = S_{HH} + S_C + (T - G) - I = S_D - I = \Delta R - FI_{Inward} + FI_{Outward} = X - M + N$$

Where S_{HH} is household saving, S_C is corporate saving, *(T-G)* is government saving or the fiscal surplus, S_D is total domestic saving, *I* is investment (including public investment), *CA* is the current account balance and *N* is net foreign factor income.[9] *FI* signifies foreign investment, inflows or outflows. In China's case these terms are dominated by FDI since cross-border portfolio investments are restricted (though not eliminated) by its capital controls (Ma and McCauley 2007).

Thus, to explore the implications for external accounts we must consider changes to household, corporate and government saving and compare these with changes in investment. Numerous measurement issues arise. The first is that there are inconsistencies between China's GDP estimates based on expenditure accounts on the one hand and production accounts on the other. We use expenditure accounts to estimate overall saving, but draw on flow of funds data, which come from the production side, to separate household from corporate saving. Second, there are at least three additional measurement issues that could inflate the overall saving rate (Ma & Yi 2010). These include a) a consistent pattern of positive inventory accumulation, which arises because consumption expenditure is survey based with inventories calculated as residual, suggests final consumption is underestimated; b) an apparent underestimation of imputed housing rent reduces both income and saving levels, possibly inflating the saving rate by a per cent or so; and, c) understatement of the retained earnings of foreign firms operating in China, causing some foreign corporate saving to be counted as domestic corporate saving. Recent evidence that Chinese household consumption is understated in official statistics is further explored by Jonathan Garner and Helen Qiao (2013) who conclude that household incomes are underestimated (mostly because consumption surveys don't capture the very wealthy, who further understate their incomes) and that consumption expenditure may be larger than official estimates by as much as a tenth of official GDP.

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9   This identity is readily obtained by combining the expenditure identity, *Y=C+I+G+X-M* with the disposal identity for GNP, *Y+N=C+T+S*, where *S=S_{HH}+S_C*.

Beyond the assessment of the trend in the surplus of total domestic saving over investment, there is the matter of the international destinations of China's excess saving. It is important to note the recent pattern of substituting reserve accumulation for outward FDI and the associated changes in regional distribution of China's excess saving. We consider each of these components in turn.

Household Saving

The pattern and time trend of household saving in other Asian economies is analysed by Charles Horioka and Terada-Hagiwara (2012). They point out that the three main determinants of rates of measurable household saving are the age structure of the population and the levels of income and financial sector development. Saving rates follow a concave path, rising in the early stages of development and subsequently declining with ageing and financial development, which lowers credit constraints. They suggest that private saving in China could remain stable, affected by offsetting, opposing forces—ageing and financial development tend to reduce it and higher incomes tend to raise it. Changes in this projected pattern might be expected, however, in the aftermath of the GFC and with the commencement of China's inward-focused strategy. Moreover, the projections of Horioka and Terada-Hagiwara neither include corporate nor government saving, and changes to these are yet more likely. Official estimates of household saving through 2010 are shown in Figure 6.3. For the reasons discussed above, these are subject to question, with household saving very likely having followed a lower path, at least more recently.
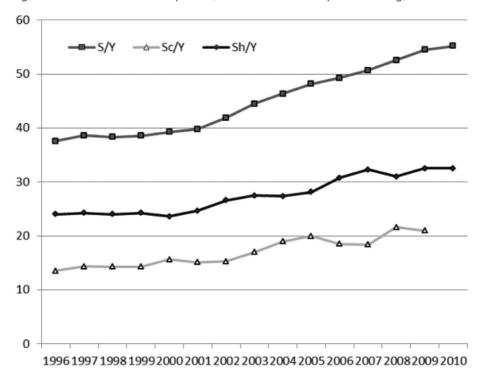
Figure 6.3 Trends in Chinese private, household and corporate saving, % GDP

Sources: From national accounts statistics private saving is $S = Y_N\text{-}C\text{-}T$ and $S_H = S\text{-}S_C$, where corporate saving, S_C, is from 'flow of funds' data. These data are inconsistent (Ma and Yi 2010), though the latter is the only source for corporate saving. Flow of funds data on household saving suggests its value in 2009 was about 25% GDP.

Corporate Saving

The trend to 2010 in corporate saving is also illustrated in Figure 6.3. The estimates are from national accounts 'flow of funds' data that are not yet updated beyond this point. Looking forward, changes in total corporate saving might be anticipated for three reasons. First, to the extent that slower global growth since the GFC has affected profitability in the state sector, corporate savings might be expected to have also declined in recent years. Second, ongoing industrial policy reforms, which include the subdivision of some SOEs, are likely to have further reduced profitability and hence corporate saving. Finally, financial development and the integration of formal and informal financial markets across the country have been proceeding apace. With more options and more security in the management of funds, it might be expected that the trend of corporate saving would be downward from its extraordinary heights of three years ago.
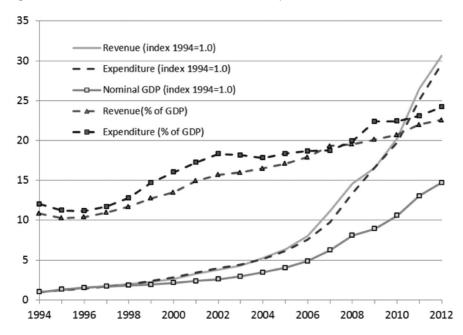
Figure 6.4 Chinese Government revenue and expenditure[a]

a Revenue, expenditure and nominal GDP are indices, 1994=1.0.

Sources: China NBS, *Statistical Yearbook 2012*.

Government Saving

Since the implementation of China's tax law in 1994, the domestic economy has gradually integrated, with an increasing share of economic activity taking place in the 'formal sector'. This has meant that central government tax revenue has grown steeply, as shown in Figure 6.4, at a rate that is notably faster than GDP. Along with this, *central* government financial surpluses have expanded continuously. At the same time, however, with the maintenance of capital controls, financial integration has caused China's high-saving households and firms to deposit their savings in domestic commercial banks. These banks have a long tradition of lending to SOEs and provincial governments, where debt has been effectively underwritten centrally. The comparatively recent development in this lending is an expansion in the share directed to provincial governments to finance local public investment.[10] As shown in Figure 6.5, this has grown significantly since 2002 and it accelerated with the onset of the GFC and the government's plan to increase public works expenditure when export demand temporarily fell away. After 2007, the sum of the provincial deficits exceeded

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10 This is notwithstanding central government sharing of national revenue with the provinces at a 50–50 rate in 2011.

the central surplus, leading to a return to overall deficits with magnitudes expanding to unprecedented levels. Thus, government saving is also shifting in the negative direction in the post-GFC years.[11]
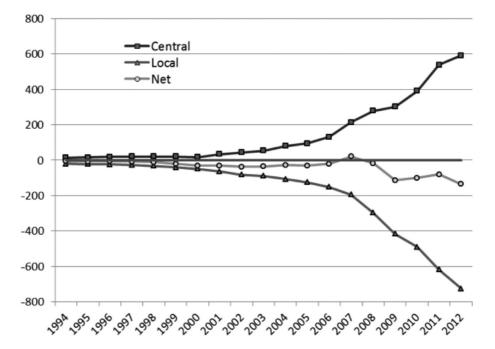
Figure 6.5 Chinese Government net surpluses, US$ billions

Implications for Overall Chinese Excess Saving Relative to Investment

The above discussions suggest that there has been a diminution of China's total domestic saving since 2010, though this may not be fully represented in the official statistics, which only show a slight decline in 2011. At the same time, total (private and public) investment rose to nearly half of GDP. Indeed, the growth rate of completed investment in fixed assets was 24 and 20 per cent in 2011 and 2012, still much faster than recorded GDP growth. This underlies the continuously rising investment share of GDP shown in Figure 6.6 and it confirms that investment has made the greatest single contribution to China's

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11 Government saving is here defined as T-G, where G is total government spending, including transfers.

'rebalancing' in recent years.[12] The result has been a contracting current account surplus in the post-GFC period, particularly since 2010. A full current account figure for 2012 is not yet available, though an estimate is offered in the figure. Although China's surplus sank below the aggregate of the rest of the world in 2012, it remained the single largest surplus across individual countries.[13]
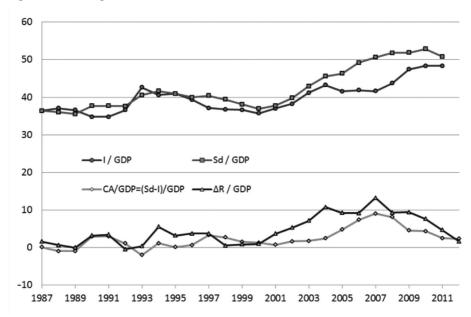
Figure 6.6 Saving, investment and the current account in China, % GDP

Sources: National Bureau of Statistics yearbook 2009–2012; IMF IFS data base. The value for the current account in 2012 is based on the trade balance and the authors' estimate of net factor income from abroad in that year.

Looking ahead, it is difficult to imagine a higher rate of investment without the prospect of increasingly wasteful projects. Moreover, the recent boost in public investment has stemmed from, first, national, post-GFC stimulus policy; second, the preference on the part of commercial banks to lend to protected provincial government and SOEs; and, third, the substantial excess supply of saving, bottled up in the home market by capital controls. We expect all three conditions to fade through time, so that the implications for future excess saving then depend on the differences between the rates of decline of total domestic saving on the one hand and investment on the other. In our view, a continued decline in excess saving appears the most likely future course, not just because

12 This pattern was foreshadowed by Lee and McKibbin (2007).
13 IMF, IFS Database.

this is the apparent path since 2010, but also considering the trend toward financial deepening and the mounting evidence that consumption expenditure is growing faster than officially estimated.

Reserves and Outward FDI

A key element of China's excess saving is its rate of official foreign reserve accumulation. Effective capital controls have been retained notwithstanding progress toward the 'internationalisation' of the RMB. These restrict, though they do not eliminate, all private financial flows other than officially sanctioned inward and outward FDI. The persistent excess of home saving over investment engenders a correspondingly persistent excess of foreign exchange revenues from net exports. This surplus foreign exchange is deposited with China's commercial banks yet the capital controls prevent it from being used in international asset transactions by bank deposit holders and so the common practice has been for it to be acquired by the People's Bank of China (PBC) in exchange for newly printed Yuan. In the absence of full convertibility, these funds have then had to be deposited abroad, mainly via purchases of government bonds in the United States and Europe.[14] In 2007, the US$ domination of the PBC's assets began to be addressed by swaps with central government debt that deposited the US$ assets with the China Investment Corporation (CIC), via which the early part of China's outward FDI was financed. Since then it has been possible for the CIC to directly acquire foreign exchange from the commercial banks. Combined with slower growth in private saving and an associated contraction in the trade surplus, this has seen slower accumulation of official foreign reserves and their reduced role on the PBC's balance sheet, as indicated in Figure 6.7.

Thus, while China's reserve accumulation has been large by international and historical standards, its scale has primarily been a consequence of outward capital controls. In effect, while the law prevents ordinary citizens from holding substantial assets abroad, the PBC, and more recently the CIC and the mainly state-owned foreign direct investors, have been holding foreign assets on their behalf. What is of importance with regard to reserve accumulation and other outflows is their international distribution and the extent to which it is changing through time. The substitution between reserve accumulation, which takes the form of low-yielding foreign government bonds and likely better yielding portfolios of the CIC and the outward-investing SOEs may be causing a redirection of China's excess saving abroad.

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14 The resulting monetary expansion was originally sterilised via the sale by the PBC of 'sterilisation bonds' (Tyers and Zhang 2011). More recently, the approach has been to reduce money creation by the commercial banks via measures such as high reserve to deposit ratios.
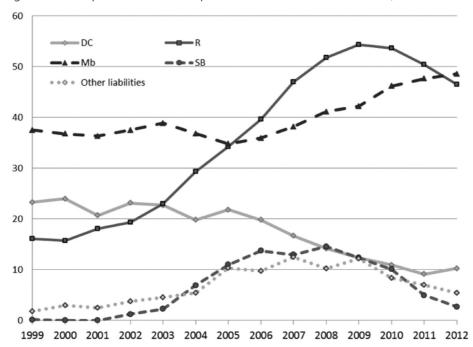
Figure 6.7 Components of the People's Bank of China balance sheet, % GDP[a]

a *DC* is domestic credit, *R* is official foreign reserves, *Mb* is monetary base, *SB* is sterilisation bonds issued by the PBC.

Source: People's Bank of China, Balance Sheet of Monetary Authority 1999–2012.

The CIC maintains a portfolio worth a half US$ trillion which is spread widely, with the largest shares in US, Australian and other Asian assets.[15] Change through time is led by new FDI, however, as shown in Table 6.1. The annual outflow of FDI amounted to US$75 billion in 2011, destined primarily for other Asian investments. By contrast, the addition to official foreign reserves in that year was US$128 billion destined, it is widely presumed, for bond acquisitions in the United States. The outward FDI was therefore a considerable offset. This compares with 2006, in which new outward FDI amounted only to US$18 billion and reserves grew by US$247 billion. This suggests a strong redistribution of China's outward financial flows away from the United States toward other Asian destinations.

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15 Some detail on outward FDI is available from the NBS *Statistical Yearbook* of 2012. A summary, slightly at variance with the official statistics, is offered by the *Economist* (2013).

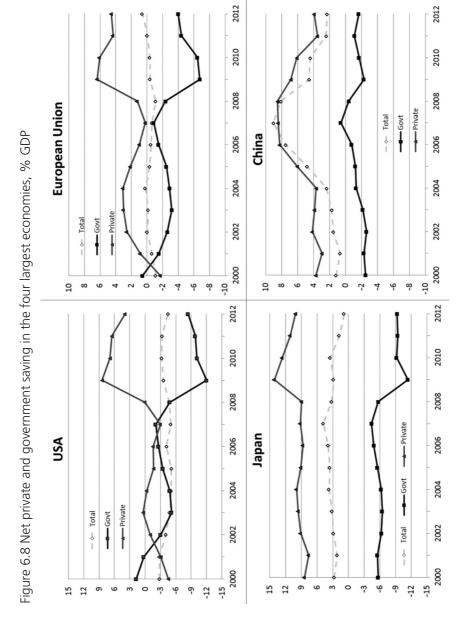Table 6.1 China's outward FDI and its regional distribution

	Annual increment, US$ billion	Per cent share					
		Asia	Africa	Europe	Latin America	North America	Oceania
2006	17.6	43.5	2.9	3.4	48.0	1.5	0.7
2007	26.5	62.6	5.9	5.8	18.5	4.2	2.9
2008	55.9	77.9	9.8	1.6	6.6	0.7	3.5
2009	56.5	71.5	2.5	5.9	13.0	2.7	4.4
2010	68.8	65.2	3.1	9.8	15.3	3.8	2.7
2011	74.7	60.9	4.3	11.1	16.0	3.3	4.4
FDI stock at the end of 2011		71.4	3.8	5.8	13.0	3.2	2.8
Value of 2011 stock, US$ billion	425	425	303	16	24	55	13

Source: China National Bureau of Statistics, *Statistical Yearbook*, 2012.

Global Financial Interdependence and Macroeconomic Policy

Global financial markets continue to be dominated by the United States, which has sustained a structural current account deficit since the 1990s. Though much that has been unpalatable since 2007 has been blamed on the GFC, the broad pattern of international finances did not appear to be permanently changed by it. Critically, it brought about a reversion by the private sectors in the United States, the European Union and Japan to net saving positions, while all three governments assumed net borrowing positions, as shown in Figure 6.8. It therefore replaced private debt, some of which had been unsustainable, with sovereign debt, some of which is also unsustainable, leaving heightened global uncertainty as to sovereign financing.

A key change took place around 2005, before which the large US deficit had been financed by surpluses in Japan and the oil-producing countries. Thereafter, however, the burden of this financing rested increasingly with China, as shown in Figure 6.9. By 2010 China had joined the club of major economies (Eickmeier and Kuehnlenz 2013) and was the dominant supplier of finance to the rest of the world, while the regions other than China and the United States were in approximate current account balance. The international financing game had become one between China and the United States. After 2010, though, China's relative role as surplus financer began to diminish with the shifts in its domestic saving–investment balance already discussed. It remains a substantial buyer of US debt and equities, however, highlighting the potential for disruption in US financial markets should China's excess saving continue to decline.

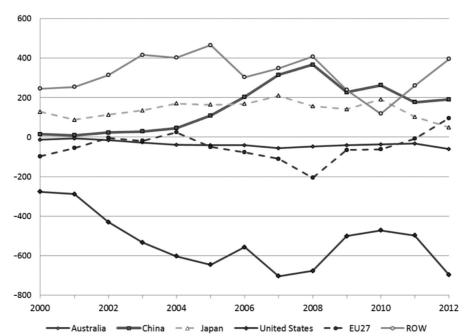Figure 6.8 Net private and government saving in the four largest economies, % GDP

Figure 6.9 Excess annual saving (current account balances) by key region, US$ billions

Source: IMF IFS database; China NBS; Japan, BOP and Ministry of Finance; EU27, Eurostat; US Bureau of Economic Analysis.

Global Finance Over Two Decades

Some insight into the macroeconomic events leading up to the GFC is offered by Figure 6.10, which shows the yields on short and long term US Treasury bonds since the beginning of the 1990s. Consistent with the market segmentation theory of the yield curve, we imagine that the transaction cost of financing long via a succession of short contracts to be prohibitive, allowing short- and long-maturity instruments to trade at substantially different prices. Moreover, short bonds are instruments of conventional domestic monetary policy and they are traded little between countries, or at least between the major economic blocs we are considering. Long bonds, by contrast, are instruments of private saving and investment.[16] They are substitutes for equity holdings and are extensively traded internationally. Long-bond yields are therefore more stable through time than short yields and reflect movements in the equilibrium between global saving

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16 While this is true as a rule of thumb, housing investment can be sensitive to short rates in economies where most mortgage contracts have variable rates. The assumption that investment financing depends on the long maturity market is accurate in a comparative sense and it is a useful simplification in modeling international financial behaviour.

and investment. Short yields, on the other hand, reflect monetary easing and tightening through business cycles that have often been specific to particular economies. Considering this, Figure 6.10 clearly shows the two large US cycles that preceded the GFC and the tightening that led up to it in 2004–2005, when petroleum prices rose. It was this tightening that exposed those investors who expected short rates to remain low, precipitating the GFC.[17] Beyond 2008, of course, the United States entered a liquidity trap, as did Europe, and Japan had been in one for at least a decade.
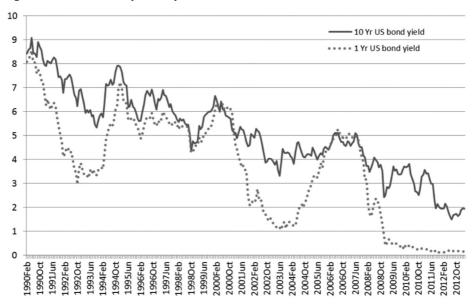
Figure 6.10 US Treasury bond yields over two decades

Source: US Treasury.

What is also notable from Figure 6.10 is the continuous and smooth downward trend in long-bond yields. This is as clear an index as any of the Asian savings glut. After the 1980s the great majority of the world's incremental growth took place in Asia, where saving rates were, and continue to be, substantially higher than in the rest of the world. Long yields, which had risen prior to the mid 1980s, have fallen continuously since. Though it is not shown in the figure, this long-run pattern is also observable in European, Canadian and Australian long-bond yields. Importantly, and this is clear from the more recent data on yields represented in Figure 6.11, the downward trend in long yields persists beyond the GFC in all three economic regions. Yet the evidence is building that the Asian savings glut is over, led by declining net saving in both Japan and China. What, then, explains the continuing decline in long yields?

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17 Its origins in petroleum markets are analysed by Arora and Tyers (2011).

Quantitative Easing (QE)

The most likely explanation is unconventional monetary policy, or QE, whereby money expansions are achieved via the large-scale purchase of long bonds, and related instruments, by central banks. For economies that have been stagnant in real terms since 2007, this has led to substantial expansions in central bank asset holdings, as indicated in Figure 6.11. These raise the prices of long bonds and related instruments and suppress their yields. Unlike more conventional monetary policy, the QE focus on widely traded instruments projects the domestic monetary cycle beyond national borders with immediacy. In part for this reason, the policy is being matched in the United States, Europe and Japan, causing financial outflows as investors seek out better yields abroad.[18] Recent expansions in central bank balance sheets are shown in Figure 6.12.[19] So what purpose does such unconventional monetary policy serve?
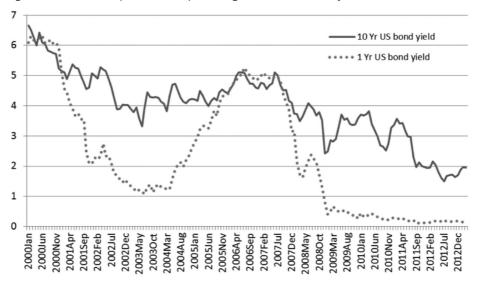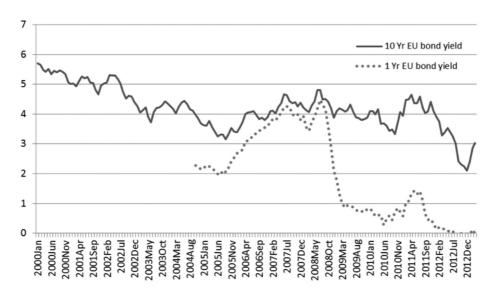
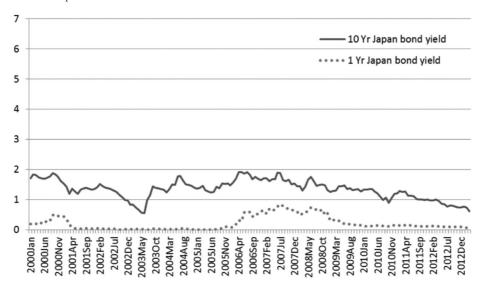Figure 6.11 US, European and Japanese government bond yields since 2000

Source: US Treasury.

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18 Of course, one clear rationale for QE on the part of the US Federal Reserve is that the substitution will be away from US bonds to US equities. And this has happened too. Much less is said by the Federal Reserve about the international effects.

19 It is notable that China's monetary base is large compared with the others, which is likely due to reduced money creation by China's commercial banks in response to such restrictions as high reserve to deposit ratios.

Source: European Central Bank.

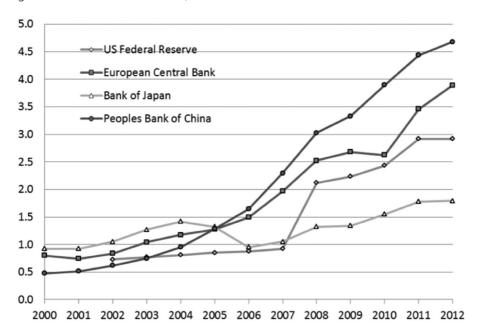Source: European Central Bank, Reuters.

Figure 6.12 Central Bank assets, US$ trillions

Source: EU, ECB; United States, Japan: St. Louis Federal Reserve Database; China, National Bureau of Statistics.

The three large economic blocs have, each by their own historical standards, high unemployment and governments with extraordinary sovereign debt overhangs. Further fiscal expansion seems unwise yet their liquidity traps prevent conventional monetary expansions. QE offers an alternative stimulatory course. Acquisitions by central banks offer the convenience of additional leeway for further government deficit spending. Governments continue to spend beyond their revenues and, even if there is less buying of their debt by Asian surplus economies, their own central banks acquire it. Importantly, the new abundance of regional currency depreciates the exchange rate against non-QE implementing economies and, at least in theory, this stimulates traded sectors.

The Global Game

In an important sense, QE policies are part of a strategic game within the small club comprising the major economic regions, of which China is now a member. A substantial monetary expansion by one region requires a matching response from the others to avoid appreciations that would reduce competitiveness. In the other transitional economies and the resource exporting economies like Australia, outside the club, the result has been accelerating inflation, or more

substantial nominal appreciations relative to the United States.[20] The notable thing about movements in the major currencies since 2000, shown in Figure 6.13, is that the US$ has gradually depreciated against all. Beyond that, the Yen, the Euro and the Yuan have tended to move together, particularly in the aftermath of the GFC, when they appeared to stabilise around their 2000 relativities, albeit all appreciating by one-third against the US$. Very recently, there has been a break from this pattern with Japan's more aggressive QE causing a substantial depreciation relative to the others. Since the Japanese economy is now the smallest of the economic regions, it is possible that its departure from equilibrium could be sustained at minimum cost to the others.
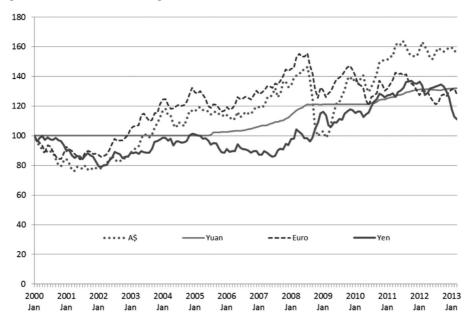
Figure 6.13 Nominal exchange rate indices vs the US$

Source: IMF IFS and Eurostat.

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20 The A$ is the resource currency of an outsider economy that is not a default risk and that has not engaged in aggressive monetary expansion. Return-seeking financial flows from the QE economies have therefore boosted its value.

The Global Economy in Prospect: The Effects of Still Less Chinese Saving

Private portfolio holders around the world see extraordinary risk in apparently unsustainable sovereign debt and, so, are holding the additional money that is created by QE, rather than investing in new plant and equipment. Investor confidence will not return until the sovereign debt issues are resolved, or unless there is an unexpected shock that suggests higher future productivity. Failing the latter, much depends on political struggles to reassign debt or selectively default.

Yet, there is just such a positive shock in the United States in the new availability of large quantities of energy from natural gas at comparatively low cost. This could draw portfolio holders into new private investment and lead them to shed liquidity. As they do this they will issue new debt and equity, pushing down bond prices and raising yields. Central banks will seek to prevent inflation by soaking up the shed liquidity. Much will depend on their approach to this. If they unload their holdings of long bonds first this will further raise long yields. In the past, the Japanese and Chinese governments, the oil exporting countries, or their central banks, would have been there to acquire the shed bonds. This time, if China's excess saving does decline and if the new abundance of energy holds down petroleum prices, this rescue will not occur and, unless some inflation is allowed, a credit squeeze could develop that strangles the recovery.

Elemental Analysis of a Short-run Chinese Saving Shock

To see how important China's excess saving is, we apply the standard intuitive model of macroeconomic behaviour[21] to the short-run effects of a unilateral fall in China's saving on its own economy and on its partner economies. To begin with, reduced Chinese private saving would shrink the demand for home assets and this drives up home yields. If capital controls were perfect, this would have no effect on private flows abroad[22] but it would reduce the current account surplus as home consumption would absorb goods that were once exported. The foreign exchange available to purchase international goods would fall, switching Chinese demand toward home goods and raising their relative prices, thus appreciating the real exchange rate. In the financial sector, higher home yields

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21 This is a flex-price version of the standard Mundell (1963) – Fleming (1962) approach, that still underlies modern macroeconomic intuition. In a forthcoming more extensive quantitative analysis we use the model of Tyers and Cheong (2013) to address the issues of this chapter.

22 Imperfect capital controls mean that a greater proportion of what internationally mobile, yield-chasing investors there are in China would choose to hold home rather than foreign assets, reducing private outflows on the capital account.

would raise the opportunity cost of holding money and contract the demand for real balances. The real appreciation requires either an inflation, a nominal appreciation or a combination of both and it is a matter of monetary policy to decide which. Let us assume the Chinese Government opts, as they have in the recent past, for the combination of both.

Now consider China's economic partners in aggregate. They face three shocks. First, there is a contraction in the external demand for their assets that places upward pressure on domestic long-bond yields. Second, there is inflation abroad, so the price level there is higher and with this comes a deterioration in their terms of trade. Third, related to this but more advantageous, there is a real depreciation. In the home financial market, reduced foreign demand raises yields on home assets, reducing home investment. The curtailed financial inflow contracts the capital account surplus and hence also the current account deficit, by providing less foreign currency to spend on foreign goods over and above export earnings. In effect, there is a contraction in aggregate demand and since the supply of goods from abroad is more elastic than from home the relative prices of home goods fall, causing the real depreciation.

Higher home yields reduce home demand for real money balances and a monetary contraction is required to prevent inflation.[23] This is where the history of QE makes a difference. Central banks are loaded with long maturity assets and their inflation-targeting policy directives would dictate contractions in their balance sheets. If they first dump long assets on internationally open markets for long instruments, say with a view to returning to conventional monetary policy, this would exacerbate the home asset glut and further raise both home and foreign yields, contracting home investment even more substantially.

In the end, the partner economies face inferior terms of trade and substantially higher investment financing costs, though their real exchange rates are reduced relative to China and they export more. Some of the negative aspects of these circumstances can be offset by the controlled release of long assets by central banks and a departure from their practice of the past two decades to allow some inflation. Indeed, a period of inflation might seem politically attractive, both as a buffer against exacerbating the rise in long yields in the short run and as a means of diminishing sovereign debt burdens. Yet, if this inflation is anticipated it will precipitate a private sell-off in bond markets in any case, driving up long yields consistent with the expectations theory of the yield curve. Very steady hands will be required at central banks during this period.

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23 Given our faith in the market segmentation theory of the yield curve, and the likelihood that the PBC holds long maturity US bonds, it would the long bond yield that would rise in the United States. But, because the collective portfolio comprises mainly long-maturing assets or their equivalents, it is the long rate that is the opportunity cost of holding money.

On net, the circumstances of the economic regions other than China are inferior to an extent that depends on the scale of the rise in financing costs and of the real depreciations relative to China. It is the coincidence of timing that is important—Chinese and Japanese excess saving reductions, coming after years of QE in the other economic blocs. For the United States in particular, this could be made much worse by the combination of reduced Chinese saving with its redistribution away from investments in US assets. Since, as Figure 6.8 confirms, even quite standardised ten-year government debt contracts are differentiated across the major economic blocs. This means that redistribution away from US assets will exacerbate the associated financial contraction in the United States in particular.

Conclusion

The slower and more 'inward focused' growth to which the Chinese Government is now committed will contract its excess saving. Rises in consumption will reduce household saving, reduced oligopoly profits and further financial development will reduce corporate saving and the recent rise in provincial debt has already eliminated government saving. This coincides with reduced Japanese saving and, hence, the end of the 'Asian savings glut', and it must eventually raise the global cost of debt, which has recently been suppressed by QE in the United States, Europe and Japan. In the major economic regions, the monetary reaction to reduced Chinese saving, will see higher long-bond yields that are readily transmissible globally, raising debt-service costs everywhere and causing a new headwind against investment worldwide.

Given that the United States appears to be leading the northern recovery, aided by reduced energy costs, much then depends on the implications of slower Chinese saving growth for US capital markets and investment. It is likely that the effect on the US economy will be disproportionate, not only because the two economies are already highly interdependent but also because China's financial outflows are shifting away from reserve accumulation, which is intensive in US bonds, and toward FDI that goes primarily into other Asian economies. A comparatively large rise in the cost of financing in the United States could stifle the recovery there and hence globally. The effects of this pessimistic scenario could be offset by fiscal consolidation in the large regions, so that global debt falls as global saving falls, leading to a soft landing for private investment. Without fiscal consolidation, however, the consequences could be serious global contraction.

The critical need is to induce real investment from global portfolio holders who are currently soaking up money and avoiding what they see as systemic risks associated with ever higher sovereign debt. Achieving this will build new industries, create new employment and demand new exports from China and other Asian exporters. China's turn inward is sensible given its export environment but, contrary to the popular view, its timing could be unfortunate. Those excess savings will come in especially handy when the inevitable return to conventional monetary policy occurs. Their disappearance is a key negative global shock that is only temporarily disguised by QE in the larger economic regions.

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