

Global imbalances: the perspective of the Bank of England

By Mervyn King, Governor, Bank of England. This article was first published in the *Banque de France Financial Stability Review*, No. 15, February 2011, 'Global imbalances and financial stability'.⁽¹⁾

In 2009, demand in the world's major economies fell, relative to its pre-crisis trend, by around US\$2.5 trillion or 5% of GDP. The financial crisis damaged virtually every country. Global imbalances helped to fuel the financial crisis. And today they threaten the sustainability of the recovery in global demand. Global imbalances are a reflection of today's decentralised international monetary and financial system. All the main players around the world are rationally pursuing their own self interest. But the financial crisis has revealed that what makes sense for each player individually does not always make sense in aggregate. These actions had collective consequences. The main lesson from the crisis is the need to find better ways of ensuring the right collective outcome. Improved financial regulation will help to intermediate the flows associated with global imbalances. But the global economy will remain vulnerable to the risks associated with imbalances if they are not tackled at source. Two principles should underpin the way ahead. First, discussions should focus on the underlying disagreement about the right speed of adjustment to the real pattern of spending and hence the reduction in these imbalances. This discussion should be informed by countries' ability to follow that path in a sustainable way. Second, many policies, in addition to changes in exchange rates, will be needed to reduce imbalances. If agreement is not reached on these two principles, at best there will be a weak world recovery; at worst, the seeds of the next financial crisis will be sown.

In 2009, demand in the world's major economies fell, relative to its pre-crisis trend, by around US\$2.5 trillion or 5% of GDP. The financial crisis left almost no country unscathed. While unprecedented policy measures allowed the world to escape a second Great Depression, the global recovery so far has been uneven and it remains fragile.

This article looks at the role global imbalances played in fuelling the financial crisis, and the importance of achieving a rebalancing of global demand in order to foster a sustainable recovery. Its key message is that, in today's highly interconnected global economy, a top priority for national policymakers must be to find ways to rebalance global demand. That is important to ensure both (i) the level of world demand is sufficient for the world recovery to continue and (ii) that future crises are avoided.

Imbalances contributed to the financial crisis

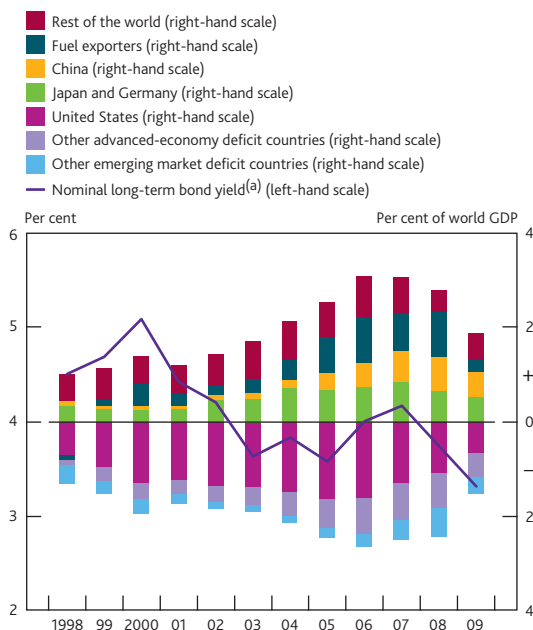
Since the breakdown of the Bretton Woods system in the early 1970s, international monetary arrangements have

evolved into a decentralised system. Countries are free to make independent choices about their monetary, exchange rate and financial stability policies. Greater capital mobility has also been one of the defining features of the current regime. In the run-up to the recent crisis, net capital flows more than doubled in less than a decade (**Chart 1**) and global imbalances widened to near unprecedented levels (**Chart 2**).

Increased capital flows can raise global output to the extent that they seek out the most productive investment opportunities, transferring savings from countries where the marginal product of capital is low to countries where the marginal product of capital is high. But in today's system, some advanced economies such as the United States and the United Kingdom have been running large and persistent current account deficits, while emerging market economies, in particular in Asia and among oil exporters, have been running current account surpluses. This 'uphill' flow of capital from the dynamic, labour-abundant emerging economies to the

⁽¹⁾ This article was also published on the Bank of England's website on 18 February 2011, see www.bankofengland.co.uk/publications/speeches/2011/speech473.pdf.

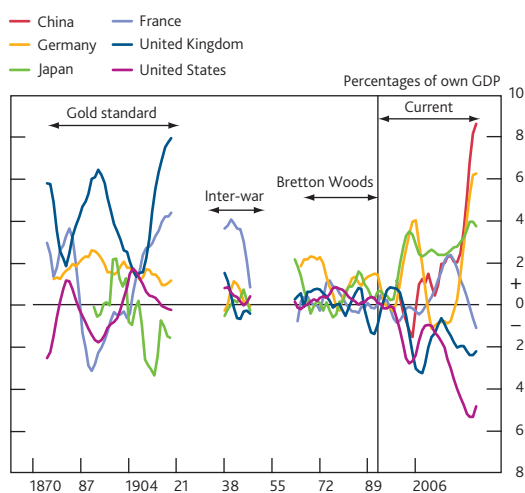
Chart 1 Current account imbalances and long-term interest rates



Source: IMF World Economic Outlook.

(a) Advanced economies.

Chart 2 Current account balances^(a)



Sources: IMF World Economic Outlook, Taylor (2002) and Bank calculations.

(a) Five-year moving average.

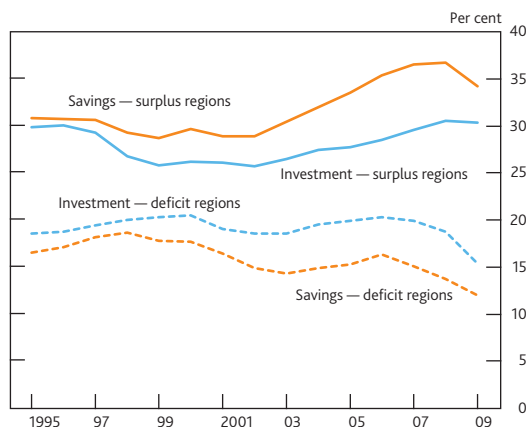
mature advanced economies is, at least in some instances, puzzling. So factors other than differences in the marginal product of capital must have been at work (Lucas (1990)). It is notable that the purchasers of foreign assets have been emerging market *public* sectors rather than private sectors. As a result, there has been a more than tenfold increase in reserve holdings over the past fifteen years. The governments in those economies have been playing an intermediary role, channelling domestic saving away from the local economy and into international capital markets. And emerging market economies' asset of choice has been safe, typically sovereign financial assets.

These growing *flow* imbalances have been accompanied by growing *stock* imbalances. The US net external liability position quadrupled in size in the course of a decade, rising to US\$3.5 trillion in 2008 (25% of GDP). And the net external asset positions of Japan and Germany rose by around US\$1.7 trillion and US\$0.8 trillion respectively (around 35% and 25% of 2008 GDP) over the same period, while Chinese net external assets reached US\$1.5 trillion, a third of GDP, in 2008.

What drove these net capital flows 'uphill'? **Chart 1** illustrates that these flows were associated with a decline in long-term interest rates, pointing to either a fall in *desired* investment or an increase in *desired* saving at the global level. Were such changes to occur in any given country, they would tend to increase that country's current account balance, leading either to a smaller deficit or a larger surplus. But the fact that global current account imbalances were growing over this period indicates that these shifts in saving-investment balances occurred in countries that were already running surpluses.

Chart 3 demonstrates that rising saving-investment imbalances in surplus countries were driven primarily by increased saving, rather than decreased investment. Although investment had been high and rising in surplus countries, saving had been even higher, and increasing at a faster rate. A 'savings glut' in surplus countries created ever-larger net capital outflows that allowed the United States — and other deficit countries — to finance continued borrowing.

Chart 3 Savings and investment rates in current account deficit and surplus regions^(a)



Note: Per cent of GDP shown as per cent of surplus regions' GDP and per cent of deficit regions' GDP.

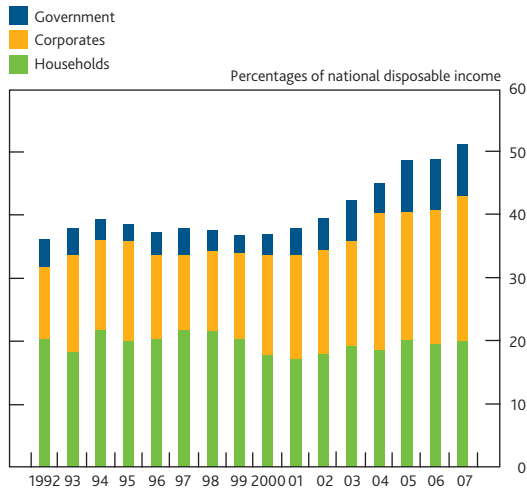
Source: IMF World Economic Outlook.

(a) Surplus regions are those with current account surpluses greater than 1% of GDP in 2008 and include Commonwealth of Independent States and Mongolia, Developing Asia, Japan, Middle East and Newly Industrialised Asia; deficit regions are those with current account deficits greater than 1% of GDP and include Central and Eastern Europe, Sub-Saharan Africa, United Kingdom and United States.

In an accounting sense, the increase in emerging market saving as a share of world GDP reflected two factors. Taking China as an illustration, **Chart 4** shows that in China, national savings

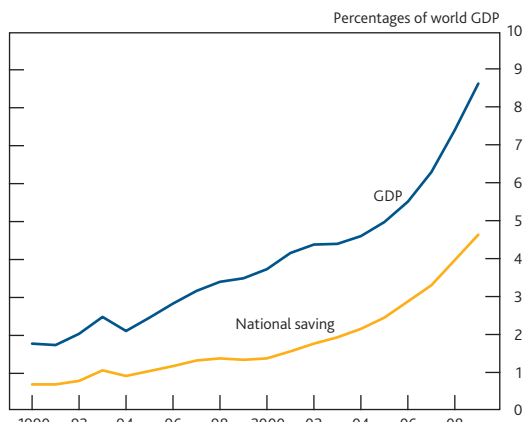
increased as a percentage of national disposable income from 2001 onwards. **Chart 5** shows that Chinese GDP has doubled as a share of world GDP since 2001 — accentuating the increase in Chinese savings as a share of world GDP.

Chart 4 China's national savings



Source: Speech by Governor Zhou Xiaochaun, 3 July 2009, [www.pbc.gov.cn/image_public/UserFiles/english/upload/File/AddressattheGlobalThink-tankSummit\[1\].pdf](http://www.pbc.gov.cn/image_public/UserFiles/english/upload/File/AddressattheGlobalThink-tankSummit[1].pdf).

Chart 5 China's national savings and GDP



Source: IMF World Economic Outlook.

There are three possible, interconnected, reasons why domestic saving in emerging economies increased. First, many of these economies adopted a strategy of *expanding manufactured exports to create employment*. This required maintaining highly competitive exchange rates and resulted in a substantial accumulation of foreign exchange reserves. Second, in the aftermath of the Asian crisis governments decided to accumulate reserves for *precautionary reasons*. And third, *low levels of financial development* may have played an important role through a variety of channels including (i) households choosing to self-insure because of incomplete access to domestic insurance markets (Mendoza *et al* (2009)); (ii) an insufficient supply of 'safe' financial assets at home which encouraged emerging market

investors to accumulate 'safe' assets from advanced economies' financial markets (Caballero *et al* (2008)); (iii) the scaling back of government-provided social safety nets and provision of health and education services, which encouraged households to build up saving buffers (Chamon and Prasad (2010)); and (iv) inadequate provision of financial services, which forced companies to retain earnings to finance future investment.

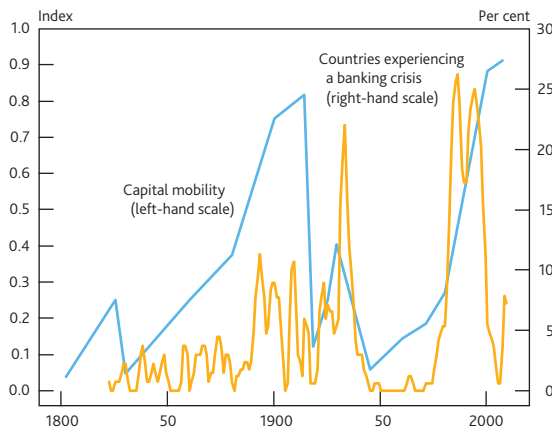
Meanwhile, policymakers in advanced economies followed a strategy of aiming to maintain an adequate level of overall demand consistent with steady, low inflation. In some cases, that implied that they ran substantial current account deficits. At the time, all the economies seemed to gain: just as the high-saving countries created employment, the low-saving economies enjoyed faster real consumption growth as the price of imported manufactured goods fell.

Within their own terms, all these actions were rational. All the main players — countries, regulators, central banks and commercial banks — were rationally pursuing their own self interest. But what made sense for each player individually did not make sense in aggregate. These actions had collective consequences.

In particular, the 'glut' of savings helped push down on government bond yields — Warnock and Warnock (2009), for example, estimate that if there had been no foreign official purchases of US government bonds in the year to May 2005, the ten-year Treasury yield would have been around 80 basis points higher. In an attempt to maintain returns at previous higher levels, other investors 'searched for yield', which encouraged risk-taking, much of it under the guise of 'financial innovation', resulting in an underpricing of risk. This was evident in reduced discrimination between assets of differing credit quality and the development of increasingly complex financial instruments employing leverage to generate higher returns. Such risk-taking was possible because of inadequacies in financial regulation and supervision.

The pattern of growth, with the associated imbalances and mispricing of risk, was not sustainable: as we know only too well, the ensuing financial crisis threatened the entire stability of the financial system. Indeed, as **Chart 6** illustrates, financial crises have been a hallmark of the current incarnation of the international monetary and financial system (IMFS), with the reappearance of global financial instability coinciding with the rapid increase in capital mobility. **Chart 7** shows that the change in countries' non-performing loan (NPL) ratios between 2007 and 2009 and their current account balance in 2007 are correlated, though of course the direction of causation could go both ways. By comparison, the relationship between the change in countries' NPL ratios and their banks' capital ratios is insignificant. **Table A** also shows that relative to Bretton Woods, today's IMFS has proven

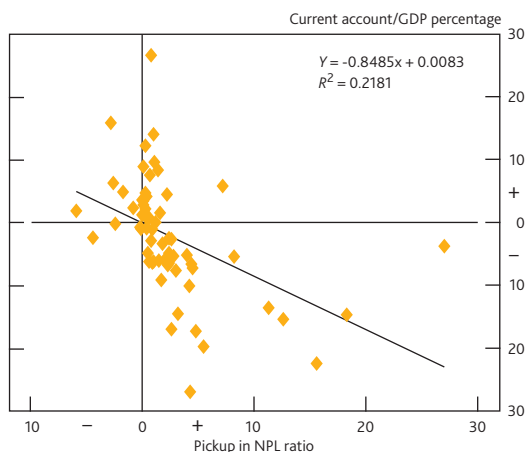
Chart 6 Capital mobility^(a) and the incidence of banking crises^(b)



Sources: Bordo et al (2001), Obstfeld and Taylor (2004), Reinhart (2010) and Bank calculations.

(a) Obstfeld and Taylor's capital mobility index is judgemental and takes values between 0 and 1.
(b) Three-year average.

Chart 7 Current account balances and non-performing loan (NPL) ratios^(a)



Sources: IMF Global Financial Stability Report and World Economic Outlook.

(a) Current account balance as a share of GDP in 2007 and change in NPL ratios between 2007 and 2009.

durable, but it has also coexisted, *on average*, with: slower, more volatile, global growth; more frequent downturns; higher inflation and inflation volatility; larger current account imbalances; and more frequent banking crises, currency crises and external defaults. However, to some extent these period-average metrics obscure significant improvements over the current period, with the 'great moderation' period post-1990 associated with much better outcomes than those achieved in the 1970s and 1980s. Nevertheless, with the important exception of inflation, the outcomes achieved during the Bretton Woods period were better than those attained since 1990. While this does not imply causation of course, it does suggest that better outcomes may be possible.

Indeed, the main lesson from the crisis is the need to find better ways of ensuring the right collective outcome. Reforms to financial regulation and the structure of the banking system need to take place in order to prevent another financial crisis.

Many of these reforms are already under way. Improved financial regulation will help to intermediate the flows associated with global imbalances. But we cannot expect too much of regulation: it may well be circumvented or diluted over time, and there will be leakages, both across borders and through the shadow banking system. So the global economy will remain vulnerable to the risks associated with imbalances if they are not tackled at source. That will require some way of ensuring that countries' policies result in a sustainable outcome.

Rebalancing of global demand is the key to a sustainable recovery

All countries accept that global rebalancing is necessary. But there is a clear difference between the *ex-ante* path of adjustment desired by the surplus countries, which are faced with the need for a structural shift away from reliance on exports, and the *ex-ante* path of adjustment preferred by the deficit countries, which are under greater pressure to reduce the burden of debt in both private and public sectors. Talk of currency conflicts is a symptom of a deeper disagreement on the appropriate time path of real adjustment. The reason this matters is that, since surpluses and deficits must add to zero for the world as a whole, differences between these desired *ex-ante* adjustment paths are reconciled *ex post* by changes in the level of world output. And the risk is that unless agreement on a common path of adjustment is reached, conflicting policies will result in that *ex-post* path taking place at an undesirably low level of world output.

Today's IMFS has become distorted. The major surplus and deficit countries are pursuing economic strategies that are in direct conflict. And there are some innocent victims. Those emerging market economies which have adopted floating currencies are now suffering from the attempts of other countries to hold down their exchange rates, and are experiencing uncomfortable rates of capital inflows and currency appreciation. So there is more to this issue than a bilateral conflict between China and the United States.

Current exchange rate tensions illustrate the resistance to the relative price changes that are necessary for a successful rebalancing. The need to act in the collective interest has yet to be recognised, and, unless it is, it will be only a matter of time before one or more countries resort to protectionism as the only domestic instrument to support a necessary rebalancing. That could, as it did in the 1930s, lead to a disastrous collapse in activity around the world. Every country would suffer ruinous consequences. But, to borrow a phrase, in order to be tough on protectionism, we need also to be tough on the causes of protectionism.

So what needs to be done? I would suggest two principles for the way ahead. First, focus discussion on the underlying

Table A Selected metrics for measuring the performance of the IMFS over time

Panel A	World GDP (per capita) ^(a)		World inflation ^(b)	
	Growth Annual average Per cent	Volatility Coefficient of variation	Average Per cent	Volatility Standard deviation Percentage points
Pre-gold standard (1820–69)	0.5	–	–	–
Gold standard (1870–1913) ^(c)	1.3	1.2	0.6	3.0
Inter-war period (1925–39) ^(c)	1.2	3.3	0.0	4.6
Bretton Woods (1948–72) ^(d)	2.8	0.3	3.3	2.1
<i>Memo: 1948–58^(d)</i>	2.7	0.4	3.1	2.9
<i>1959–72</i>	3.0	0.3	3.5	1.3
Current (1973–2008)	1.8	0.7	4.8	3.5
<i>Memo: 1973–89</i>	1.4	0.8	7.5	3.4
<i>1990–2008</i>	2.2	0.6	2.3	0.9

Panel B	Downturns		Current account imbalances
	Years of negative world GDP growth Share of period Per cent	Years of negative country GDP growth ^(e) Share of period, median country Per cent	Surpluses and deficits Per cent of world GDP ^(f)
Pre-gold standard (1820–69)	–	–	–
Gold standard (1870–1913) ^(c)	7	19	2.4
Inter-war period (1925–39) ^(c)	21	27	1.2
Bretton Woods (1948–72) ^(d)	0	4	0.8
<i>Memo: 1948–58^(d)</i>	0	0	0.8
<i>1959–72</i>	0	0	0.8
Current (1973–2008)	0	13	2.2
<i>Memo: 1973–89</i>	0	18	1.6
<i>1990–2008</i>	0	11	2.8

Panel C	Incidence of crises		
	Banking crises ^(g) Number per year	Currency crises ^(h) Number per year	External default ⁽ⁱ⁾ Number per year
Pre-gold standard (1820–69)	0.6	–	0.7
Gold standard (1870–1913) ^(j)	1.3	0.6	0.9
Inter-war period (1925–39)	2.1	1.7	1.5
Bretton Woods (1948–72)	0.1	1.7	0.7
<i>Memo: 1948–58</i>	0.0	1.4	0.3
<i>1959–72</i>	0.1	1.9	1.1
Current (1973–2009)	2.6	3.7	1.3
<i>Memo: 1973–89</i>	2.2	5.4	1.8
<i>1990–2009</i>	3.0	2.4	0.8

Sources: Bordo *et al* (2001), Global Financial Data, Hutchison and Noy (2006), IMF *World Economic Outlook*, Maddison (2006) updated data are available from www.ggd.net/MADDISON/oriindex.htm, Mecagni *et al* (2009), Reinhart (2010), Taylor (2002) and Bank calculations.

(a) Denominated in constant international dollars, as defined by Maddison (2006).

(b) Nominal GDP-weighted average of twelve countries.

(c) Where world-level data are unavailable, a subset of reporting countries is used.

(d) World GDP data begin in 1950.

(e) Sample of current G20 countries (including EU countries), where data available.

(f) Sum of absolute values of surpluses and deficits. Based on available data for a sample of G20 and EU countries.

(g) Based on a sample of 56 countries, using data based on methodology developed by Bordo *et al* (2001).

(h) Based on a sample of 56 countries, using data based on methodology developed by Bordo *et al* (2001) and supplemented by Reinhart (2010), Mecagni *et al* (2009) and Hutchison and Noy (2006).

(i) Based on a sample of 45 countries. External defaults as defined by Reinhart (2010).

(j) Currency crises data begin in 1880.

disagreement about the right speed of adjustment to the real pattern of spending. This discussion should be informed by countries' ability to follow that path in a sustainable way. Without agreement on this, policies will inevitably conflict. Once broad agreement is reached, it should then be easier to agree on the instruments of policy. Second, in terms of policy instruments, put on the table many potential policy measures — not just the single issue of exchange rates. That should

include, in addition to exchange rates, rules of the game for controlling capital inflows, more efficient means for countries to self-insure, plans to raise saving in the deficit countries, structural reforms to boost demand in the surplus countries and even the role and governance of the international financial institutions.

What is needed now is a 'grand bargain' among the major players in the world economy. A bargain that recognises the benefits of compromise on the real path of economic adjustment in order to avoid the damaging consequences of a move towards protectionism. Exchange rates will have to be part of such a bargain, but they logically follow a higher level agreement on rebalancing and sustaining a high level of world demand.

A natural forum in which to strike a bargain is the G20 Framework for Strong, Sustainable and Balanced Growth. So far, the process has failed to achieve a move to a better outcome. If we cannot achieve co-operation voluntarily then a

more rules-based automatic system may need to be considered to restore global demand and to maintain future global economic and financial stability.

Global imbalances contributed to the financial crisis and a rebalancing of global demand is the key to a sustainable recovery. While financial regulation will help to intermedicate the flows associated with global imbalances, it has limitations. If we, collectively, do not deal with these problems at best we will have a weak world recovery and at worst we will sow the seeds of the next financial crisis. It is in our hands to avoid both those outcomes.

References

Bordo, M, Eichengreen, B, Klingebiel, D and Martinez Peria, M S (2001), 'Is the crisis problem growing more severe?', *Economic Policy*, Vol. 16(32), pages 51–82.

Caballero, R, Farhi, E and Gourinchas, P (2008), 'An equilibrium model of 'global imbalances' and low interest rates', *American Economic Review*, Vol. 98(1), pages 358–93.

Chamon, M and Prasad, E (2010), 'Why are savings rates of urban households in China rising?', *American Economic Journal: Macroeconomics*, Vol. 2(1), pages 93–130.

Hutchison, M and Noy, I (2006), 'Sudden stops and the Mexican wave: currency crises, capital flow reversals and output loss in emerging markets', *Journal of Development Economics*, Vol. 79, pages 225–48.

Lucas, R (1990), 'Why doesn't capital flow from rich to poor countries?', *American Economic Review*, Vol. 80(2), pages 92–96.

Maddison, A (2006), *The world economy*, OECD Publishing, Vol. 2.

Mecagni, M, Atoyan, R and Hofman, D (2009), 'The persistence of capital account crises', *IMF Working Paper no. 09/103*.

Mendoza, E, Quadrini, V and Rios-Rull, J (2009), 'Financial integration, financial deepness and global imbalances', *Journal of Political Economy*, Vol. 117(3), pages 371–416.

Obstfeld, M and Taylor, A (2004), *Global capital markets: integration, crisis, and growth*, Cambridge University Press.

Reinhart, C (2010), 'This time is different chartbook: country histories on debt, default, and financial crises', *NBER Working Paper no. 15815*.

Taylor, A (2002), 'A century of current account dynamics', *Journal of International Money and Finance*, Vol. 21(6), pages 725–48.

Warnock, F and Warnock, V (2009), 'International capital flows and US interest rates', *Journal of International Money and Finance*, Vol. 28, pages 903–19.