

What might be driving the need to rebalance in the United Kingdom?

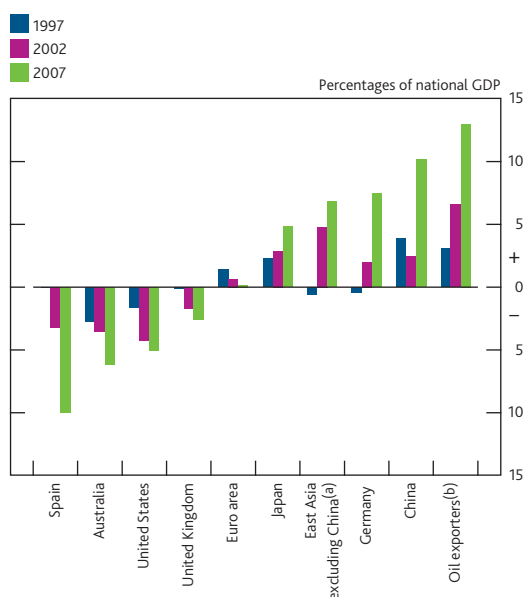
By Stuart Berry, Matthew Corder and Richard Williams of the Bank's Monetary Analysis Directorate.⁽¹⁾

Low national saving, a persistent current account deficit and the rapid expansion of balance sheets are potential reasons why the UK economy needs to rebalance. Global factors are likely to have been an important driver of these developments, but domestic factors have played an important role in the longer-term trends. This article looks at how the potential drivers of the need for rebalancing have evolved and how they fit together.

Introduction

The implications of macroeconomic imbalances have been an important feature of the outlook for the global economy for some time.⁽²⁾ One aspect that is often highlighted is the emergence of a widening dispersion of current account deficits and surpluses across countries in the run-up to the financial crisis (**Chart 1**). The United Kingdom has been a part of those global imbalances, running a persistent current account deficit. The presence of such imbalances implies that an adjustment is required at some point. But current account positions are only one manifestation of imbalances. Low national saving, the emergence of large surpluses and deficits across different sectors of the economy, and a rapid expansion of balance sheets could also be associated with a need for rebalancing.

Chart 1 International current account balances



Source: IMF September 2011 *World Economic Outlook*.

(a) 'East Asia excluding China' includes Hong Kong, Indonesia, Korea, Malaysia, Philippines, Singapore, Taiwan and Thailand.

(b) 'Oil exporters' includes OPEC members, Norway and Russia.

A rebalancing of the UK economy could have important implications for monetary policy. It will mean changes in the pattern of spending, which could affect the overall outlook for output and inflation. But the timing and impact of any rebalancing will depend on the factors driving it. This article considers some of the potential reasons why the UK economy needs to rebalance. The aim is to provide a broad narrative of how different drivers for rebalancing fit together.

The following section sets out a simple framework for thinking about the need for rebalancing. Subsequent sections then look at where the drivers for rebalancing may have arisen, both at an aggregate level and in different sectors of the economy, why they might have arisen, and how they may have been affected by the financial crisis. A simple metric of the potential adjustment required to stabilise balance sheet positions at different levels is presented in the next section, followed by a brief discussion of how any adjustment might take place and the potential implications for monetary policy. The article then concludes.

What do we mean by the need for rebalancing?

In a strict sense, financial imbalances cannot exist. That is, the flow of funds between different households and companies must be in balance, because they must add up. But rebalancing may be necessary if the current network of financial arrangements between different parties is unsustainable in the long run. The need for rebalancing can take a number of different forms. For example, it can reflect unsustainable financial flows or unsustainable stock (or balance sheet) positions. Rebalancing may be required

(1) This article draws on work from a number of other economists in the Bank's Monetary Analysis and Financial Stability areas: Alan Castle, Robert Gilhooly, Alan Mankikar, Jeremy Martin, Katharine Neiss, Tom O'Grady, Varun Paul, Kate Reinold, Kate Stratford, Jamie Thompson and Rob Wood.

(2) See for example de Rato (2006), King (2000, 2011) and Lipsky (2010).

domestically, between different sectors of the economy, or externally, between the United Kingdom and the rest of the world.

At an aggregate level, it may be sustainable for the United Kingdom as a whole, or specific sectors within it, to continue to hold some level of debts or assets almost indefinitely. While households and companies are typically subject to a budget constraint — over their lifetimes, they can only spend what they earn — the economy continues to produce output and income as new households replace older ones. So aggregate borrowing and financial balances do not need to be zero even in the long run. The key issue is what level of assets and debts can be maintained.

Furthermore, some level of borrowing and lending is desirable. The ability of different households and companies to postpone or bring forward their spending is an important part of how the economy works. It allows people to smooth their spending over time to maximise the benefit they derive from it. And some degree of borrowing and lending is required to finance investment, to build and maintain the productive capacity of the economy.

Some movements in the amount of borrowing and lending over time will be entirely appropriate responses to changes in the underlying economic drivers. For example, demographic factors could mean that it is optimal for a country to borrow or lend abroad for a period to smooth its consumption. A rebalancing would be required at some point but the initial period of borrowing or lending may persist for some time and the subsequent adjustment may occur only gradually.

Unsustainable financial positions may, however, build up due to unrealistic expectations or frictions in the economy. And these may be of more concern in the short run. For example, households may underestimate the amount they have to save for their retirement, or a system of fixed exchange rates might prevent an adjustment in trade positions for a period. There is a risk that the rebalancing required in these circumstances could occur more abruptly.

Where might a need for rebalancing have emerged in the UK economy?

A useful starting point for thinking about rebalancing is to look at the relationship between flows of national saving, investment and the current account. National income is used either to finance current (private or public) consumption or is saved and used to finance investment either domestically or abroad. To the extent that national saving is insufficient to finance domestic investment, the United Kingdom must borrow from abroad to make up the shortfall. That would manifest itself in a current account deficit. Conversely, if national saving is higher than domestic investment, the

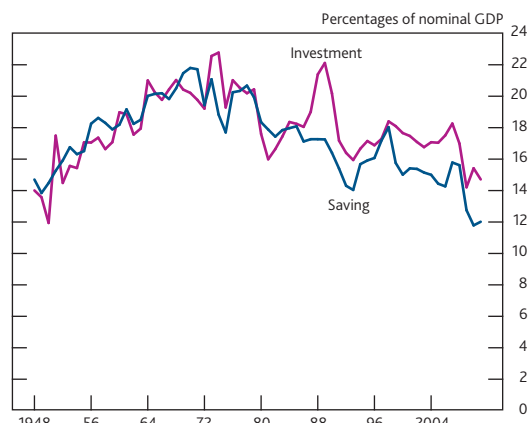
United Kingdom lends that money abroad and there would be a current account surplus. That flow of funds is captured in the following identity:

$$(National\ income - C_{private} - C_{public}) - Domestic\ investment \equiv Current\ account\ balance$$

National saving

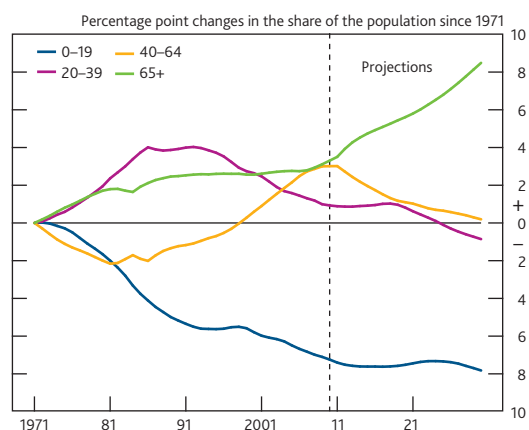
National saving — the difference between national income and consumption — as a share of national income, has been on a declining trend since the 1970s (Chart 2). And over the past 25 years it has been insufficient to finance domestic investment. The decline in national saving is surprising given the demographic changes over that period. National saving might have been expected to rise given that increasing numbers of the 'baby-boom' generation were entering their peak saving years of their 40s and 50s (Chart 3). UK saving has also been lower than in most other developed economies over the past 20 years. That might suggest that the United Kingdom has been saving too little for some time.

Chart 2 UK national saving and investment^(a)



(a) Gross measures. Annual data. The data point for national saving in 2011 is based on the outturns for the first three quarters of the year.

Chart 3 Changes in UK population age structure^(a)



(a) Projections are the ONS 2010-based principal projections.

One approach to assessing the adequacy of national saving is to derive a comprehensive balance sheet for the household sector. This attempts to capture all the resources the

household sector has to draw on, including current and future income and claims on financial or real assets (such as land or machinery). It then looks at whether those resources can support current levels of public and private consumption into the future. Weale (2011) provides some illustrative calculations of the comprehensive balance sheet for the United Kingdom and suggests that current consumption is unsustainably high. Such calculations are sensitive to assumptions about future productivity growth and the return on saving. But for a plausible range of assumptions, national saving appears to be too low (see the box on page 24).

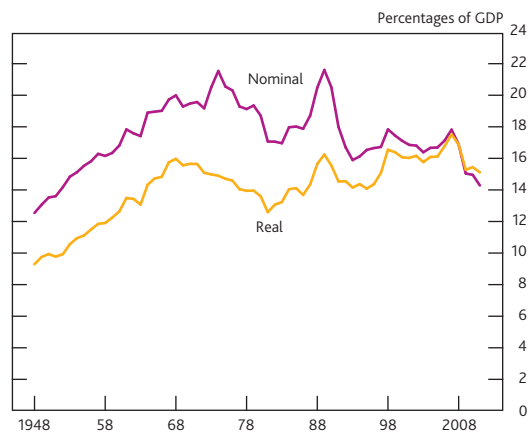
Low saving in the past typically implies that consumption will need to be weaker relative to incomes in the future, or that households will need to work longer to finance their retirement. Over the past fifteen years or so, saving may have stayed low because the current generation of households have benefited from large capital gains on their assets. In the comprehensive balance sheet calculations such capital gains are not assumed to continue, leaving future generations needing to save more.

Increases in the value of land in particular (seen, for example, in the rise in house prices) have boosted household net worth as a share of GDP, despite low saving rates. In principle, increases in house values should not increase current spending power because they simply reflect higher housing costs in the future. But increases in house and land prices benefit current generations at the expense of the future generations that will face those higher housing costs. If current households choose not to pass on those gains to later generations, they may be able to spend more and save less. Future generations, however, will need to save more for their retirement or work longer. In these circumstances, individual households would not necessarily need to change their behaviour, but aggregate saving would increase gradually as those households which had not benefited from capital gains make up an increasing share of the population.

Investment

Ultimately, saving is a means of paying for future consumption and can either be invested at home (domestic investment) or overseas (as a net acquisition of foreign assets). Like saving, domestic investment has fallen as a share of nominal GDP since the early 1980s, but it is less clear whether it has been too low or too high. The decline in the cost of investment goods relative to other goods and services over that period means that in real terms the ratio of investment to GDP in the United Kingdom has been rising since the 1970s (**Chart 4**).⁽¹⁾ The returns on overseas assets, however, have been higher than those on UK assets, which might suggest that more domestic saving should have been used to invest in foreign assets rather than domestic ones — although the difference in returns may just reflect different levels of risk associated with such investments.

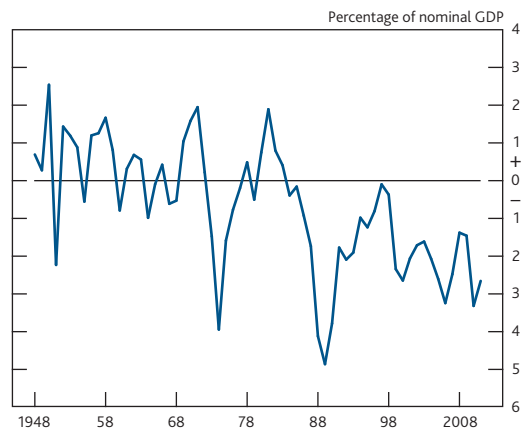
Chart 4 UK real and nominal investment



The current account

The counterpart to the persistent shortfall between national saving and investment has been a current account deficit. The deficit has averaged around 2% of GDP over the past 25 years (**Chart 5**). Despite this, the United Kingdom's net international investment position — the difference between the assets it holds overseas and its liabilities to other countries — has been little changed (**Chart 6**). That is because the additional debt taken on each period has been offset by capital gains on its existing assets.

Chart 5 UK current account balance^(a)



(a) Annual data. The data point for 2011 is based on the outturns for the first three quarters of the year.

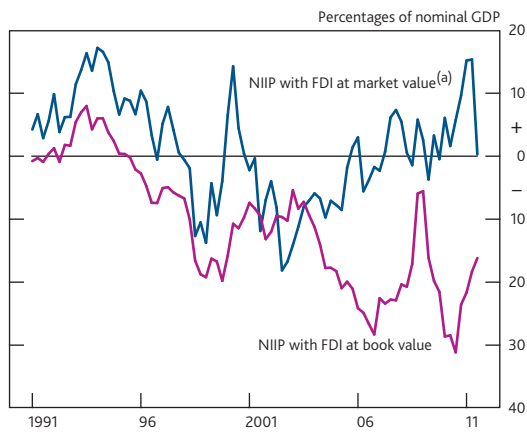
Balance sheet expansion

The fact that stock positions have not deteriorated might suggest that little adjustment is required to them, even if flows need to adjust to prevent them deteriorating in the future (absent further sharp increases in asset prices). But the size and composition of both sides of the balance sheet can also be important.

Over the past fifteen years, increases in asset values have been accompanied by sharp increases in debt in the

(1) For more on trends in business investment see Bakhshi and Thompson (2002) and Ellis and Groth (2003).

Chart 6 UK net international investment position (NIIP) with foreign direct investment (FDI) at book and market value

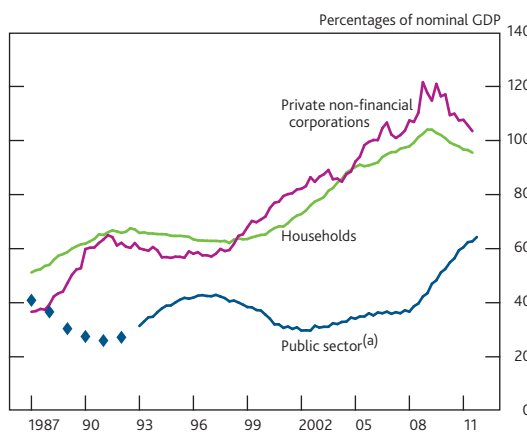


Sources: OECD, ONS, Thomson Reuters Datastream and Bank calculations.

(a) Foreign direct investment at book value in each country is revalued using equity indices for that country. For more details see Kubelec, Orskaug and Tanaka (2007).

United Kingdom. The ratios of both household and corporate debt to GDP have increased by more than half during that period (Chart 7). Debt can be used to finance current spending, or it can be used to finance the purchase of assets. And it is likely that increased demand for assets, financed by debt, put upward pressure on asset prices. The expansion in both sides of household and corporate balance sheets has made stock positions more risky. Net wealth is more vulnerable to changes in asset values as the stock of assets becomes large relative to net wealth. And spending becomes more vulnerable to changes in financing costs with higher debt levels.

Chart 7 UK debt to GDP ratios



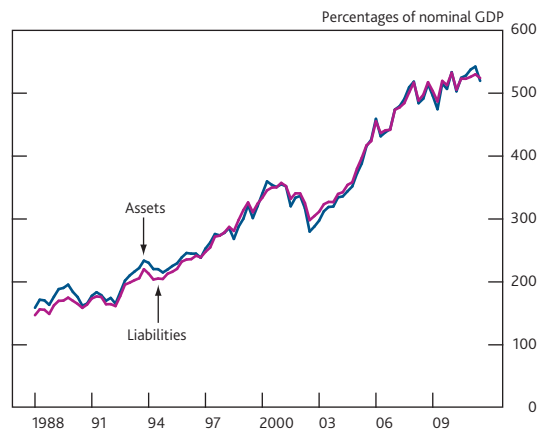
(a) Public sector net debt (excluding the effects of temporary financial sector interventions). The diamonds are annual data for the end of Q1 each year.

If households and companies decide that they are no longer comfortable with the risks associated with such large balance sheets, this could be a further reason for a rebalancing in the economy. Households and companies may look to reduce debt levels in order to protect themselves against potential declines in asset prices or their income. Debt levels can be reduced actively by using current income or assets to pay

down debt. But debt levels can also fall in a more passive way. The quantity of household secured debt, for example, will be affected by the number of new mortgages taken out and the value of those mortgages — meaning falls in home sales and prices both put downward pressure on overall debt levels.⁽¹⁾

The United Kingdom’s external balance sheet also expanded rapidly in the period leading up to the financial crisis (Chart 8). Continued global integration is likely to have led to rising cross-border ownership of companies, which boosted gross external balance sheets. And the return on overseas assets was high relative to the cost of borrowing from overseas, making debt-financed purchases of foreign assets attractive. Much of the increase in the UK external balance sheet reflected asset and liability accumulation by the banking sector. The increased interconnectedness of the global financial system will have increased cross-border financial transactions, either between different financial institutions or within international financial groups. A larger external balance sheet increases the risk of disruption if overseas investors decide to withdraw their funds, unless UK companies can sell their overseas assets easily. As in the case of domestic balance sheets, the UK external balance sheet is also more vulnerable to asset price falls, or changes in the cost of funding.

Chart 8 UK external assets and liabilities^(a)



Sources: OECD, ONS, Thomson Reuters Datastream and Bank calculations.

(a) Foreign direct investment measured at market value. See Chart 6. Derivatives are excluded as the data only began in 2004.

Sectoral developments

So far, the focus has been on aggregate developments, but it is also useful to consider how these have affected different sectors of the economy. Rebalancing may be required between different sectors as well as in aggregate. Perhaps one of the surprising aspects of the decline in national saving in the decade leading up to the financial crisis is that it did not involve a period of very rapid growth in household consumption. Nominal household consumption rose sharply as a share of GDP in the 1980s and early 1990s but was the same in 2007 as it was in the mid-1990s. Over that period, the

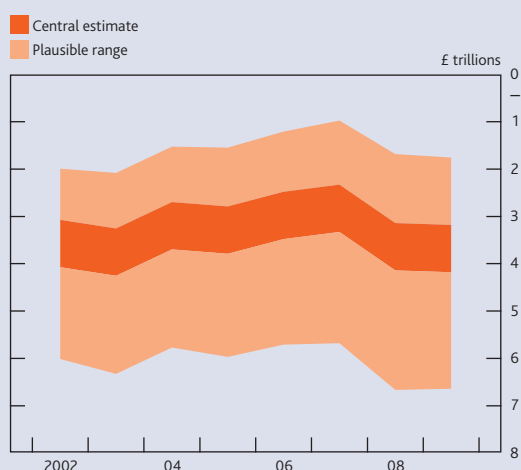
(1) See Hamilton (2003) and Reinold (2011).

The comprehensive balance sheet⁽¹⁾

The comprehensive balance sheet is an extension of the traditional national balance sheet and shows the net present value of all assets and liabilities of current and future generations. Assets include current and future labour income (human capital), natural and produced capital, and net foreign assets, while the liabilities consist of estimated future private and public consumption. A negative balance for the nation implies that the planned use of resources exceeds that which is actually available, and, hence, indicates that economic behaviour is unsustainable in its broadest sense.

Any estimate of the comprehensive balance sheet of the nation requires projections of income and consumption in the future, and it is therefore sensitive to assumptions about productivity growth, rates of return and economic behaviour. The central case in **Chart A** assumes a trend rate of productivity growth of 1.5% per capita and a discount rate of 4.4% — this rate of return is just below the real return observed for the United Kingdom from 1986 to 2006, while the productivity growth rate is notably lower than the pre-crisis average. The calculations also assume that the pattern of consumption and income by age remain constant over the future. In other words, income and expenditure by age moves in line with per capita productivity growth for all ages. Therefore the income and consumption of individuals in the future will be higher in real terms than for the current population, but the ratio of, for example, 50 year olds' consumption to that of 25 year olds will be unchanged.

Chart A Estimates of the UK net national balance



A plausible estimate of the comprehensive balance sheet suggests that UK net worth is negative — implying current economic behaviour is unsustainable. Under the assumptions described above, it is likely that the current generation can cover lifetime spending only by using some of the natural capital (including land) they hold: they have a net deficit of

income relative to consumption. If expenditure patterns initially remain unchanged a sharp adjustment in consumption would eventually be required. A higher growth rate of productivity makes the balance worse. Faster productivity growth increases both future income and consumption — increasing both sides of the comprehensive balance sheet — but with the assumptions made, it raises the latter more than the former. Higher productivity therefore increases the absolute size of any deficit. Conversely, a higher rate of return improves things.

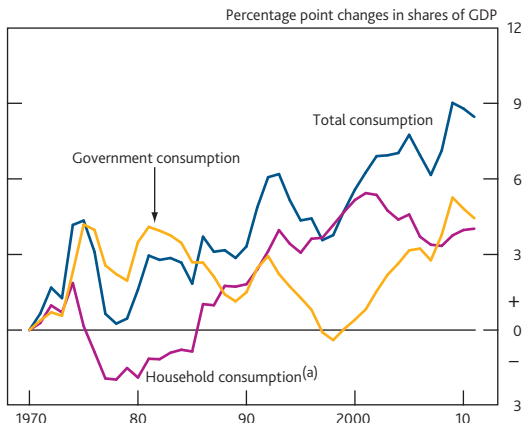
Choosing plausible alternative assumptions about productivity and rates of return does not alter the main conclusion that the United Kingdom is currently in an unsustainable position. The swathe in **Chart A** shows the range of estimates of the UK comprehensive balance sheet based on different assumptions about productivity growth and interest rates. These all point to negative net worth. A trend productivity growth rate of less than 1% combined with a real interest rate greater than 5.5% would be required to show the economy in balance. These are very different from the averages seen over the past 20 years.

This result does not hold if economic behaviour is modified so that the pattern of income and consumption of future generations does not match that of the current generation. Extending individuals' working lives, as implied by recent changes to retirement ages, will increase income in later life relative to current generations and will help close the net deficit. The scale of the adjustment required makes it unlikely that all the adjustment can come through later retirement. This implies that at some point consumption will have to fall relative to income. But this could happen through either a sudden large cut in spending, or as a gradual change if future generations' spending grows more slowly than in the past.

(1) This box is based on work presented in Weale (2011).

decline in national saving came largely from the public sector. Government consumption as a share of GDP rose by around 3 percentage points in the decade to 2007 (Chart 9).

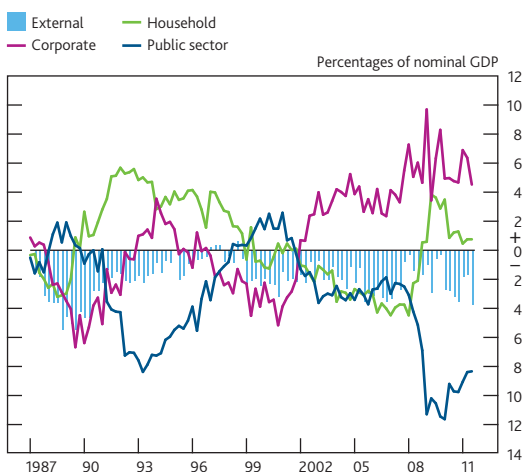
Chart 9 Changes in UK nominal expenditure shares since 1970



(a) Includes non-profit institutions serving households.

Although household consumption growth was not particularly strong, imbalances may still have been building in the household sector. The household saving rate fell gradually during much of the 1990s and in the 2000s up to the start of the financial crisis, as the ratio of household disposable income to GDP declined. Combined with the strength of households' nominal investment in housing over the period, that pushed down the household financial balance (Chart 10). A widening financial deficit implies that households were running down their net financial assets (either by acquiring debt or selling financial assets) at an increasing rate. In the long run, this is unsustainable, although as discussed above, increases in asset prices can offset these outflows for a period.

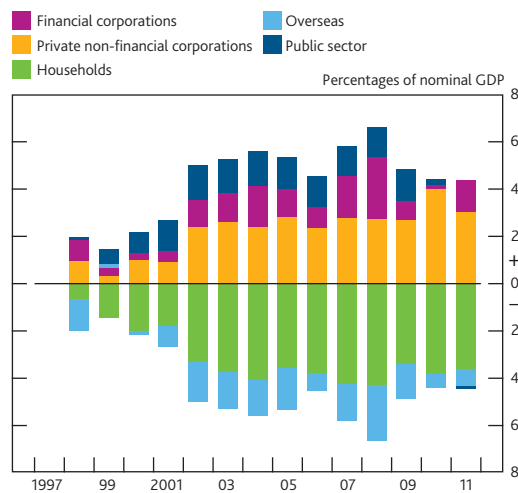
Chart 10 UK financial balances by sector



The decline in the household financial balance was largely offset within the private sector by a rise in the corporate financial balance. These movements reflected a redistribution of income from households to companies, in part through

income flows associated with holdings of assets and liabilities — known as net property income. Net property income received by the household sector fell by over 4% of GDP in the decade to 2007 (Chart 11). In particular, net interest payments from the household sector to financial companies rose as debt levels increased, and dividend payments from companies to households declined as a share of household income.

Chart 11 Changes in UK net property income by sector since 1997^(a)



(a) Annual data. The data point for 2011 is based on the outturns for the first three quarters of the year. Property income includes interest payments and receipts as well as dividends and other income from assets.

Financial decisions in the household, corporate and public sectors do not take place in isolation. It is possible that the rising corporate financial surplus can help to explain the decline in the household financial balance. Ultimately, the UK household sector owns a significant proportion of the corporate sector anyway and so they will eventually receive the income retained by the corporate sector (although rising cross-border ownership of companies blurs this link).

Households may also factor in changes in the public sector fiscal position. The move from a public sector surplus between 1998 and 2001 to a deficit might also have been expected to boost household saving if they anticipated higher taxes in the future as a result.⁽¹⁾ Taking the offsetting influences of the corporate and public sectors together suggests that the household financial balance may have been unsustainably low leading up to the financial crisis, consistent with the apparent shortfall in national saving noted earlier.

Why has the need for rebalancing emerged?

A number of potential drivers for rebalancing have been identified in the sections above. As well as a longer-run decline in national saving, and an associated persistent current

(1) See Berry, Waldron and Williams (2009).

account deficit, there has been a rapid expansion in domestic and external balance sheets over the past fifteen years. A range of factors could potentially explain these movements.

International factors could explain many of these developments. A key part of many of the explanations of global imbalances is that the current account surpluses of commodity exporters and many East Asian economies (EAEs) needed to be offset by deficits in other countries, as occurred in the United Kingdom. The adoption of managed exchange rate policies by some EAEs may have prevented or delayed the adjustment in relative prices that might otherwise have been expected to limit the build-up of such imbalances. As Astley, Smith and Pain (2009) note, the continued strength of sterling in the years leading up to the financial crisis was perhaps surprising.⁽¹⁾ In order to ensure that output did not fall in response to a weakening net trade position, domestic demand would have needed to be stronger, leading to a fall in national saving.

Global factors may also help to explain the rapid growth in domestic debt. Over and above the direct impact of increased capital inflows from overseas to finance the current account deficit, the presence of large surpluses being invested in global capital markets is likely to have pushed down global interest rates. That in turn will have increased the demand for credit in the United Kingdom and elsewhere.

There appears to have been an additional spur to credit growth, arising within the banking sector itself. Haldane (2009) points to competition within the banking sector over return on equity, and argues that this left individual banks with little option but to increase the size of their balance sheets. If that were true, banks would have had to offer more attractive terms to generate demand for loans, and this was seen in a reduction in the spread charged on loans over risk-free interest rates and the relaxation of restrictions on the quantity of credit offered. The incentives driving both the bank and non-bank sector to increase debt levels could be thought of as a key element of the so-called 'search for yield' that accompanied low global risk-free interest rates.

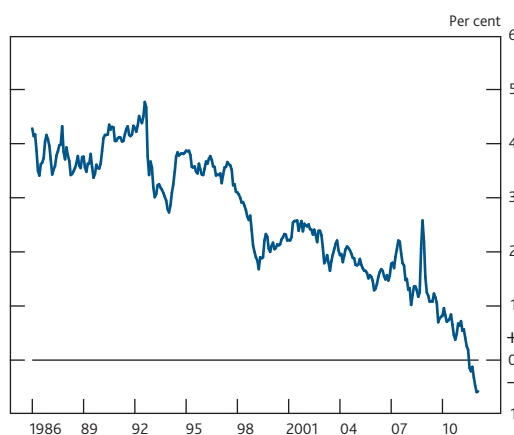
Cheaper debt finance will have encouraged households and companies to increase their borrowing, creating additional funds which boosted the demand for assets, pushing up their prices. That could help to explain the rapid expansion in both sides of the balance sheet.

Domestic factors, however, may also have played a role. The longer-run decline in saving could reflect unrealistic assumptions about the return on saving, or about the amount of retirement spending that needed to be funded, given increases in longevity. Alternatively, it could be simply that households have placed less importance on future consumption relative to current spending. Furthermore, if

households and companies expected their incomes to rise rapidly in the future, that may have boosted their spending relative to the output of the economy at the time. Sterling would then need to be strong to ensure that overall demand for UK products was in line with output. But the trade deficit would be largely the result of domestic drivers rather than external factors.

These domestic factors cannot explain why both sides of domestic and external balance sheets have expanded over the past fifteen years. But there could be other domestic influences contributing to the rises in asset prices and debt levels, and therefore an expansion of balance sheets. The decline in UK long-term real interest rates (**Chart 12**) may have reflected domestic factors such as greater monetary policy credibility and lower macroeconomic volatility.

Chart 12 UK ten-year spot real interest rates^(a)



(a) Based on yields of index-linked government bonds.

The increase in the corporate financial balance over the past fifteen years is more difficult to explain through the domestic and international channels outlined so far. It is unclear why companies chose to retain profits in the run-up to the financial crisis, rather than pass them back to the households that own the companies, particularly given that the corporate sector was taking on more debt at the same time. There are likely to be a number of factors at work. Companies may have wanted to use the funds for other reasons, such as the acquisition of foreign-owned companies or to build up a buffer against potential pension fund shortfalls. And globalisation has meant that more companies have international links, so that funds may have been transferred between different parts of the group. Distributional issues are also likely to have been important: the companies enjoying high profits are unlikely to have been the same as those taking on the debts.

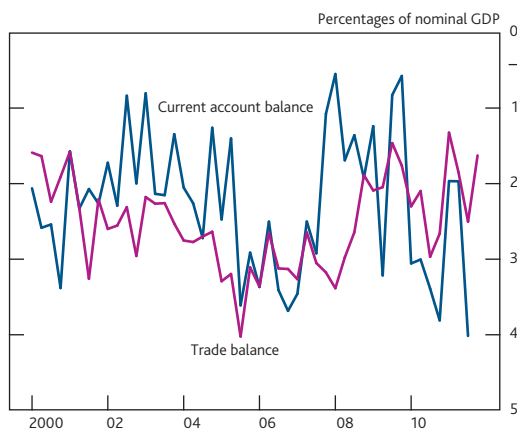
(1) Another suggested part of the story on global imbalances is a dearth of high-quality liquid assets in surplus countries. Deep financial markets in the United Kingdom are likely to have made it a popular destination for capital flows. See Caballero, Farhi and Gourinchas (2008).

The impact of the financial crisis

Over the past few years, the financial crisis has been associated with a number of important factors in the evolution of stocks and flows in the United Kingdom. Both national saving and investment fell sharply. This mainly reflected the economic downturn as falling tax revenues and higher benefit payments pushed up the fiscal deficit (and pushed down on public sector saving), and companies cut back on investment in the face of tighter credit conditions and weaker demand.

Demand for goods and services fell sharply across the world as the crisis unfolded. Weaker demand at home depressed imports, but weaker demand overseas also depressed exports. So there were offsetting effects on the trade deficit. Sterling also depreciated by around 25%. Kamath and Paul (2011) highlight evidence that this has encouraged a shift towards UK exports and away from imports. Overall, the trade deficit has been volatile, but there has been some narrowing since the start of the crisis (**Chart 13**).

Chart 13 UK current account and trade balances



The financial balances of both households and companies have increased (**Chart 10**), and the public sector deficit has widened. This divergence of public and private sector balances during the financial crisis highlights the need for some internal rebalancing. A substantial fiscal consolidation is under way in order to stabilise public sector debt levels which have increased sharply during the financial crisis.

The financial crisis is also likely to have encouraged households and companies to improve their balance sheet positions. Greater uncertainty about the macroeconomic outlook may have boosted saving as households and companies look to build up precautionary buffers of assets. And the sharp tightening in credit conditions that accompanied the crisis has made debt more difficult to obtain. For example, the typical loan to value ratios on new mortgages have fallen, particularly for first-time buyers. The recent volatility in asset prices may also have prompted households and companies to reassess the

appropriate level of debt. Household and corporate debt ratios to GDP have fallen back a little since the start of the crisis.

Overall, the financial crisis has been associated with a number of factors that are likely to have encouraged some rebalancing. But it is difficult to judge at this stage how persistent some of these effects will be, and therefore how much of the rebalancing that has already taken place will be sustained. As the cyclical influences unwind, stock and flow positions may look more or less sustainable than they do currently. Furthermore, estimates of stocks and flows are subject to revision, and future vintages of data could paint a different picture. It seems likely, though, that some further rebalancing will be required.

A simple metric of rebalancing

It is difficult to assess how large any further rebalancing might need to be. The equilibrium levels of stocks and flows will depend on a range of factors, and are likely to vary over time. As noted earlier, for example, demographics can change the optimal level of national saving. The interaction between stocks and flows is also important. The longer that unsustainable flows persist, the larger the impact on the stock position as the flows cumulate up over time. And that can mean that a larger or more protracted adjustment is needed to bring stock positions back to sustainable levels. Indeed, flows may need to 'overshoot' for a period. For example, a period of unusually low saving might need to be followed by a period of unusually high saving to rebuild wealth before saving could then return to normal.

In the absence of robust measures of equilibrium stocks and flows, we can at least look at the consistency between the stocks and flows. This can highlight whether current flows are consistent with stabilising stock positions at their current levels or at historical averages.

If households and companies care about their wealth relative to their overall income, then they may seek to maintain a particular wealth to GDP ratio. To do that, wealth needs to grow at the same rate as GDP. Maintaining a positive net wealth ratio would typically imply that households and companies need to accumulate more and more assets over time. But the composition of the existing balance sheet is also important. Equities will typically rise in value over time, while debt does not. If assets and liabilities that are expected to rise in value over time are assumed to grow in line with nominal GDP and others are assumed to remain fixed in nominal terms, then it is possible to compute the financial balance — the net addition or subtraction from the stock of wealth each period — that will stabilise the net wealth to GDP ratio at different levels.

Table A sets out the results for a number of these experiments, with nominal GDP assumed to grow at an arbitrary rate of 5% per year. It uses three illustrative levels of stock positions across different sectors: the current level; the level prevailing prior to the financial crisis; and the historical average. For example, in order for households to maintain their current level of net financial wealth (172% of GDP), they would need to run a persistent financial surplus of around 3½% of GDP.

Table A Financial balances required to stabilise stock positions^(a)

Per cent of GDP	Current levels (2011 Q3)		Pre-financial crisis (2007 Q2)		Historical average (1987–2011)		Memo: 2011 Q3
	Net financial wealth	Financial balance required	Net financial wealth	Financial balance required	Net financial wealth	Financial balance required	Current financial balance
Households	172	3½	185	2¾	179	2½	0.8
Private non-financial corporations	-98	-1½	-128	-1¾	-122	-1½	3.2
Public sector ^(b)	-63	-3	-37	-1¾	-38	-1¾	-8.3
UK external ^(c)	1	-1½	1	-1½	3	-1	-3.7

(a) Assuming that nominal GDP grows by 5% per year and the value of equity-type assets and liabilities rise in line with nominal GDP, while other assets and liabilities remain fixed in nominal terms. Surpluses/deficits are assumed to increase/reduce assets fixed in nominal terms.

(b) Calculations based on public sector net debt (excluding the effects of temporary financial sector interventions).

(c) Calculations based on the UK net international investment position, excluding derivatives, with foreign direct investment measured at market value. See Chart 6. The historical average for this series covers the period 1988–2011.

One striking feature of these calculations is that the United Kingdom can potentially maintain a positive stock of net external assets by running a current account deficit. That is because the amount of equity-like assets the United Kingdom holds, which are assumed to increase in value over time, is high relative to the United Kingdom's equity-like liabilities and the reverse is true for debt-like assets and liabilities that are fixed in value. GDP growth therefore tends to boost the net external asset to GDP ratio.⁽¹⁾ The present ratio of net external assets to GDP, for example, could therefore be maintained with a persistent current account deficit of around 1½% of GDP. That still implies that an adjustment would be required relative to recent levels of the current account to stabilise the net international investment position. And the sustainability of even a small current account deficit depends heavily on the United Kingdom being willing and able to maintain such a large, debt-financed, external balance sheet.

In recent years, the United Kingdom has also benefited from a net surplus of income on its overseas assets and liabilities. That has boosted the current account balance, partly offsetting the large trade deficit. But it is not clear whether this will persist. For example, the financial crisis could lead to a persistent increase in the cost of debt from overseas. In that case, a larger adjustment in the trade balance may be required.

Households' net financial wealth has varied significantly over time, as asset prices have changed, but the three measures

presented here are all fairly similar. A substantial financial surplus would be required to maintain net wealth at the levels shown in **Table A**, and that would require a significant increase relative to current levels. But these calculations also highlight the importance of the composition of assets and liabilities. For example, households need to run a larger financial surplus to maintain their current balance sheets than they did to maintain their pre-crisis balance sheets, despite the fact that net wealth is now slightly lower. As more net wealth is held in assets that are fixed in value, a larger financial surplus is needed to keep them growing in line with nominal GDP.

By contrast, companies typically have net debt and so could run a deficit, rather than the large surpluses currently being recorded, which suggests that companies are currently rebuilding their balance sheets. A substantial reduction in the public sector deficit is required to stabilise public sector net debt. If the public sector were to reduce its net debt to the historical average of 38% of GDP, for example, an even smaller deficit, of around 1¾% of GDP, would be needed to keep it there. The latest projections from the Office for Budget Responsibility suggest that the public sector deficit will fall below that level by 2016/17.

Such calculations are only illustrative — they are a very simple benchmark. The levels of wealth used in **Table A** may not be good proxies for the equilibrium level. As noted earlier, measures of the comprehensive balance sheet suggest that in the long run a much higher level of wealth may be needed. So it is possible that adjustments in stock positions are required as well. The calculations are also sensitive to the rate at which asset prices rise. For example, a smaller current account deficit would be required to maintain net external assets relative to GDP at their present level if asset prices were to rise less quickly than nominal GDP. Finally, such aggregate calculations ignore the fact that significant adjustments may be required by individual households and companies.

Nevertheless, these calculations highlight two potential issues. First, large current account deficits could lead to a deterioration in our net international investment position, unless movements in asset prices continue to be favourable to the United Kingdom. Second, there may need to be a substantial rebalancing between different domestic sectors. But, as noted earlier, households may be largely indifferent between saving they undertake themselves or saving companies and government undertake on their behalf.

How might rebalancing take place?

Developments both at home and abroad are likely to have an important bearing on the extent and timing of any further

(1) For more details, see Whitaker (2006).

rebalancing. And there are a number of ways in which imbalances could evolve over the next few years.

Different scenarios for rebalancing

Rebalancing could take place in a relatively benign way. In such a scenario, the trade balance would be boosted by a recovery in world demand and the continued effects of the depreciation of sterling, and balance sheet positions would unwind very gradually, limiting the increase in saving required. Output growth could remain robust as demand switches from consumption to investment and exports. Immediately following the early 1990s recession, for example, the United Kingdom had a significant current account deficit, as well as a large public sector deficit and a large private sector surplus. These unwound steadily over a number of years, with all three broadly reaching balance by 1998.

Alternatively, rebalancing might occur abruptly, for example if households and companies try to adjust their balance sheets rapidly. That could lead to a sharp slowdown in domestic spending to boost national saving. The trade balance would improve due to lower demand for imports. But output growth would be likely to weaken unless demand for UK exports increased at the same time.

A third possibility is that imbalances do not unwind, at least in the near term, with domestic demand remaining strong and the trade deficit remaining large. Some countries have maintained sizable current account deficits for much longer than the United Kingdom. Output growth may be robust in those circumstances but stock positions could deteriorate, and possibly lead to a sharper adjustment being required in the future.

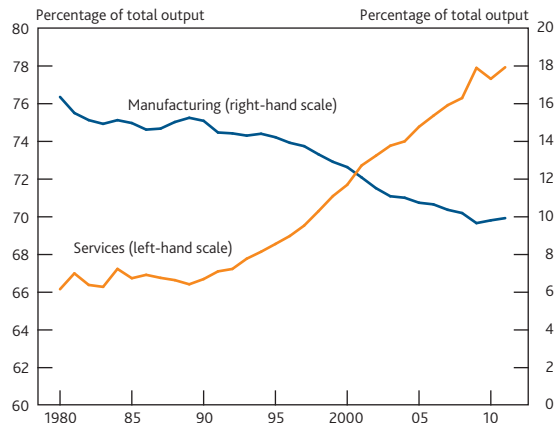
Supply-side adjustments

This article has focused on the potential rebalancing of demand and spending, but the speed with which that can take place will also depend on the flexibility of the economy. Resources would need to shift between sectors in order to allow production to adjust to meet the changing pattern of demand. Some companies that see demand for their products increase, such as exporters, will need to hire more workers and employ more capital, while those that see demand for their products fall will need to reduce their use of labour and capital.

Frictions in the ability of these resources to shift across sectors could mean that the adjustment takes longer. For example, some workers may need to be retrained if the skills they have acquired in one sector are less useful in another. Similarly, it may be difficult to redeploy machinery or buildings to other sectors. In the United Kingdom, there was a substantial shift towards services and away from manufacturing before the financial crisis, but that process occurred gradually over a period of around 20 years (**Chart 14**). A rebalancing towards

exports and investment might see those trends reverse somewhat, but the adjustment is again likely to be gradual, particularly if credit constraints make it more difficult for some companies to expand their capacity in response to stronger demand.

Chart 14 Manufacturing and services: shares of total UK output^(a)



(a) Data prior to 1995 have been spliced on to the current series using the growth rates published immediately before the 2011 *Blue Book*.

Monetary policy implications

The implications of any rebalancing for monetary policy will depend on its impact on aggregate demand and supply, and hence inflationary pressure. For example, if demand switches from consumption to investment and exports simultaneously, leaving aggregate demand unchanged, the impact on inflationary pressure may be limited. But if the slowdown in consumption comes through more quickly than the boost to exports and investment, that is likely to lead to weaker inflationary pressure and the need for looser monetary policy than might otherwise be the case.

The response of supply could also affect the implications of rebalancing for monetary policy. For example, frictions in redeploying resources could mean that the productive capacity of the economy is temporarily depressed so that the overall level of demand consistent with meeting the inflation target is lower for a period.

There could also be more persistent implications for monetary policy. If increased national saving prompted an increase in domestic investment, boosting the capital stock, then the productive capacity of the economy could eventually expand more rapidly. Similarly if longer life expectancy led younger generations to defer retirement, this could boost labour supply, and help to offset the decline in participation expected to result from an ageing population.⁽¹⁾ In both cases this would

(1) Benito and Bunn (2011) discuss the effects of wealth, demographics and changes in state retirement ages on labour market participation.

increase the level of demand that was consistent with meeting the inflation target.

Conclusion

Rebalancing can be required for a number of reasons. It can be needed to adjust unsustainable flows or stock positions, and can be international or across different sectors of the economy. National saving in the United Kingdom has declined gradually over the past 40 years, and for the past 25 years that has been associated with a persistent current account deficit. Increases in asset prices meant that net wealth did not deteriorate, but the external balance sheet and those of the household and corporate sector have expanded rapidly. Larger gross balance sheet positions have left households and

companies more vulnerable to changes in asset prices and financing costs.

Global developments are likely to have played an important role in increasing UK imbalances, and will therefore be important in how they unwind. But domestic factors will also have played a part over the longer term. In recent years, the financial crisis has been associated with a number of factors that are likely to have encouraged some rebalancing, but how persistent those drivers will be is uncertain. There are a number of ways in which rebalancing could evolve, and these could have very different implications for the economic outlook. Monetary policy will also need to take into account how the supply side of the economy adjusts to the changing pattern of demand.

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