BANK OF ENGLAND

Speech

The Changing Pattern of Savings: Implications for Growth and Inflation

Speech given by

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15 March 2007

I would like to thank Andrew Holder and Ben Westwood for research assistance and invaluable advice. I am also grateful for helpful comments from Kate Barker, Charles Bean, Tim Besley, Alex Bowen, Andrew Hauser, Andrew Wardlow and Simon Whitaker. The views expressed are my own and do not necessarily reflect those of the Bank of England or other members of the Monetary Policy Committee.

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I am delighted to be here in Edinburgh this evening, and to have the opportunity to deliver the twelfth RBS Scottish Economics Society Annual Lecture. Scotland has a strong tradition in economics, which I am pleased to say that the Bank of England is recognising by featuring Adam Smith on the new £20 note launched this week. You also have a thriving financial services industry, with Edinburgh now among the leading financial centres in Europe.

Indeed, the financial services sector has recently become the fastest growing part of the Scottish economy, with output and employment up by over 30% during the first half of this decade. It contributes a higher percentage of GDP to the Scottish economy than in any other part of the United Kingdom outside of London and the South-East of England.

Banking and fund management form the core of this dynamic financial success story. And underpinning both of these activities is the need for individuals to find a safe and secure home for their savings and for companies to access funds for investment. So this evening I want to look at some significant changes in the pattern of savings – both in the UK and globally – and to discuss their implications for the management of our economy.

My talk will be divided into three main parts. First, I will look at the role that savings play in the modern economy. Second, I will review the implications of some of the changing trends we have seen over the last decade – a falling UK personal savings rate, a rising company savings rate in many countries, and growing imbalances between savings and investment across the global economy. And I will conclude by discussing what these developments might mean for the judgements made by the Bank of England Monetary Policy Committee.

The role of savings

Saving occurs when income is not consumed immediately and is set aside for future needs.[1] But why do people save? And what role does saving play in the economy?

Economic literature lists eight or nine potential reasons for saving[2], but most of the savings behaviour of UK households can be explained under three broad headings. First, individuals

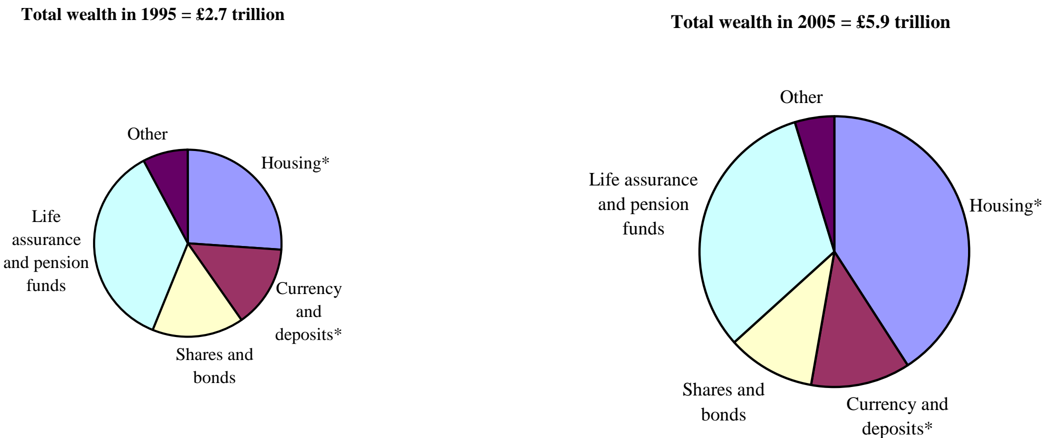
[1] Different concepts of income and consumption can therefore generate different measures of saving. In this speech, the definitions used are those published in the UK National Accounts and conventionally used for macroeconomic analysis.
[2] Keynes (1936) set out a list of eight motives for saving. A review by Browning and Lusadi (1996) concluded that Keynes' list was comprehensive, but added one more – the "downpayment" motive.

generally wish to smooth consumption over their lifetimes. We benefit from our parents' savings when we are young, and then accumulate assets over our working lives to provide income when we are older. As a result, the savings behaviour of societies should be expected to change as their demographic profile shifts – for example due to an ageing population.

Second, we accumulate money to undertake major purchases and to pay off the debts we have incurred to make them. In the UK, house purchase is a major factor here. Individuals initially accumulate savings to put down a deposit on a house – and through their working lives they pay off the debt secured on it. Reducing debt is an important form of saving, as well as accumulating financial assets. Both require income to exceed current consumption and hence generate a financial surplus.

Third, individuals may want to build up a financial buffer to cushion fluctuations in income, to cover unanticipated expenditures or to be more financially independent. Individuals will tend to smooth their income and expenditure not just over their life cycle but over shorter periods too. Temporary changes in income and wealth are therefore likely to lead to fluctuations in saving, whereas a permanent shift in income or wealth should lead to higher consumption, leaving saving relatively unaffected.

Chart 1: Household net personal wealth



** These categories shown net of borrowing.*

Source: Office for National Statistics

Over time, saving leads to an accumulated stock of assets – and Chart 1 shows the latest position for UK households, alongside the comparable picture a decade ago. Life assurance

and pension funds – primarily geared towards providing income in retirement – account for about a third of total UK personal wealth. Another 40% or so is currently accounted for by housing equity. And the remaining quarter is made up of cash, bank and building society deposits (net of borrowing), stocks and shares and other financial assets.

Chart 1 also shows that the net wealth of the personal sector has more than doubled since 1995 – from £2.7 trillion to nearly £6 trillions – about seven times personal disposable income. Over 80% of this increase reflects rising asset values – particularly in the housing market.[3] Housing wealth is now a much more significant component of the personal sector balance sheet than it was a decade ago, though as I will discuss later it may have different economic effects to the accumulation of financial wealth.

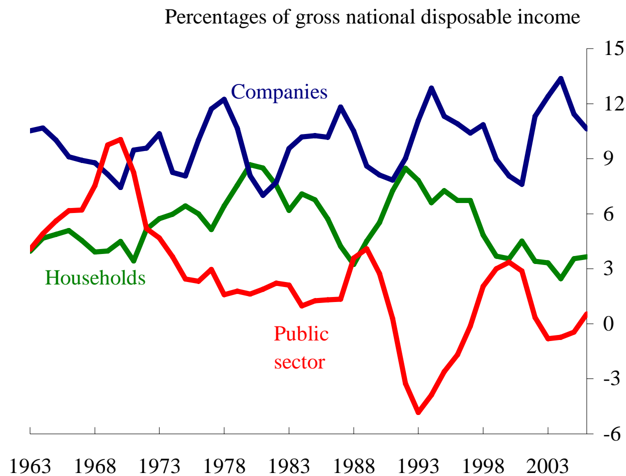
Savings and investment

From a personal perspective, saving allows financial planning and provides security. In the national economy, it provides a key role in supporting capital investment. Investment is an important influence on both the demand side and the supply side of the economy. On the demand side, it is one of the more variable components of expenditure, with swings in investment contributing significantly to fluctuations in the economic cycle. On the supply side, investment in business assets and infrastructure boosts the productive potential of the economy, supporting rising productivity and living standards.

The saving which supports business and public infrastructure investment is not all generated in the personal sector. Companies also contribute savings by retaining profits and government can generate savings by running a surplus of tax receipts over current expenditure. The national savings effort is a product of the contribution of all three sectors.

[3] Davey (2001) shows that estimated capital gains on housing and financial assets have been large relative to savings flows.

Chart 2: Sectoral savings trends



Note: 2006 estimate based on first three quarters.

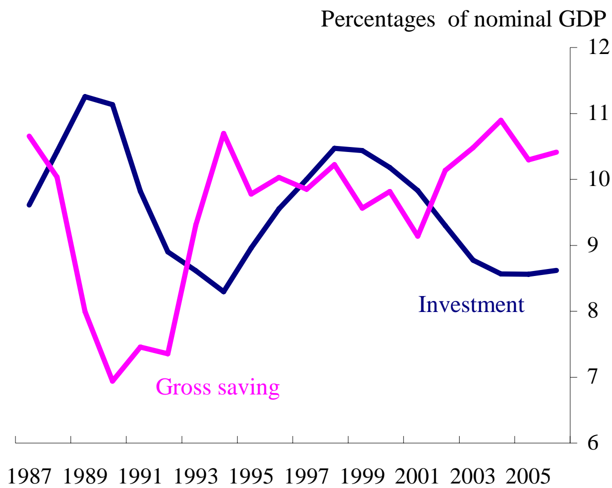
Source: Office for National Statistics

Chart 2 shows the large fluctuations we have seen in these sectoral savings rates over the last four decades – though these shifts can often be offsetting.[4] The recent trend has been for the public sector to make a fairly neutral contribution to national saving – with modest fluctuations accounted for by the cycle. Within the private sector, personal savings have been on a declining trend over the last decade. But this has been offset by rising corporate saving.

Companies save money on behalf of shareholders, who are ultimately private individuals or funds acting on their behalf. They are content to allow their wealth to accumulate within the corporate sector because of the equity which is generated by profitable investment. Corporate saving also provides a financial buffer to cushion shocks to demand and costs – such as the recent surge in energy prices. Again, it is in the interest of shareholders for this buffer to exist, rather than for these shocks to threaten the viability of the companies they own.

[4] Measurement issues may also contribute to these fluctuations. Saving is measured as a residual between income and expenditure, increasing the potential for measurement error.

Chart 3: UK company saving and investment



Note: Chart shows UK operations of private non-financial companies; 2006 estimate based on first three quarters.

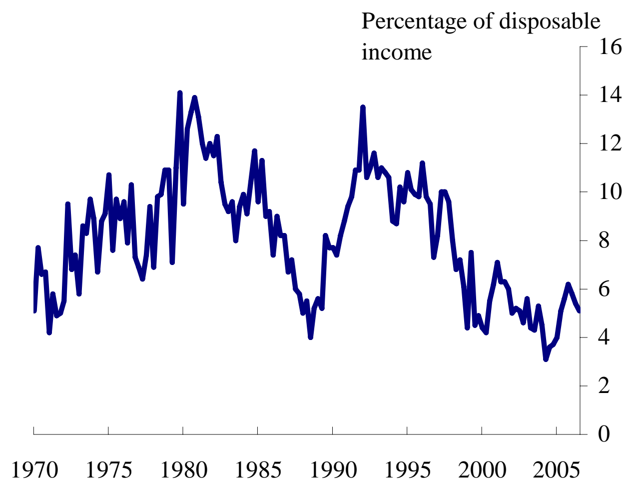
Source: Office for National Statistics

Chart 3 shows the recent savings and fixed investment of private non-financial companies operating in the UK. In recent years, corporate saving has exceeded the amount needed to finance company investment and I will come back to this issue later.

Changing pattern of UK personal savings

Having sketched out the savings landscape, I now want to talk about some of the changes we have seen within it – starting with UK personal savings.

Chart 4: UK personal saving ratio



Note: Income here defined as total household resources.

Source: Office for National Statistics

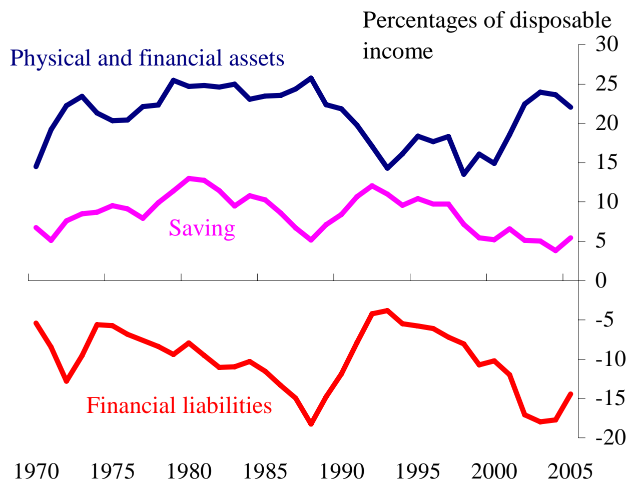
Personal saving is the difference between household income and consumption. It reflects a complex and very diverse set of decisions, with consumers of different ages at different points in their life cycle. What we observe across the economy as a whole is the net result of these decisions, taking into account borrowing as well as the acquisition of assets. Chart 4 shows that personal saving peaked in the late 1970s and early 1980s – though the high savings rates of that period were partly driven by the need to offset high inflation.[5] More recently, this balance has declined from about 12% of personal disposable income in the early 1990s to about 5% of income at present.

Changes in consumption behaviour associated with movements in the savings ratio can have important macroeconomic consequences. Strong consumer spending and a declining personal savings ratio helped to fuel the late 1980s boom, while the correction which followed in the early 1990s helped to tip the economy into recession. The slowdown in the UK economy in 2005 and its subsequent pick-up last year were also associated with swings in the personal savings ratio.

I mentioned earlier that changes in savings behaviour can reflect borrowing and the repayment of debt, as well as the accumulation of financial assets. When we look behind these changes in the UK savings ratio, we see that shifts in borrowing have been a very significant factor.

[5] Inflation-adjusted, the current level of the personal savings ratio is much closer to its historical average. The impact of inflation on savings was highlighted in the late 1970s by Taylor and Threadgold (1979). For a more recent discussion, see Davey (2001).

Chart 5: Personal sector financial transactions



Note: Data before 1987 adjusted to be consistent with current definitions

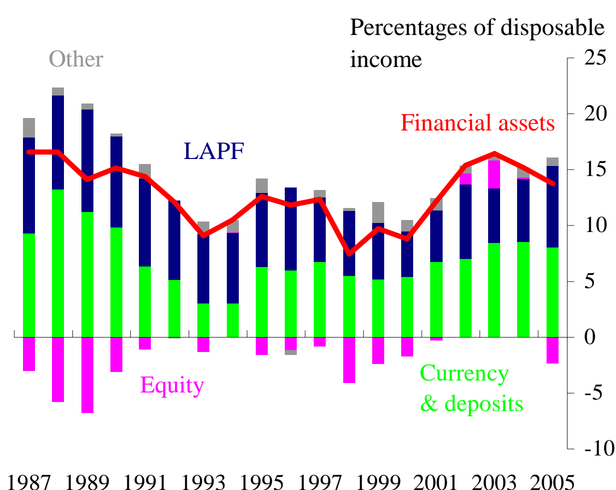
Source: Office for National Statistics

Chart 5 decomposes the change in the savings ratio into two elements. On one side of the account is the accumulation of physical and financial assets by households in the form of bank deposits, contributions to pensions and life assurance, and physical investment, mostly in housing. On the other side is the accumulation of financial liabilities, which reflects new borrowing offset by the repayment of existing debt. Borrowing secured against house purchase is the dominant element on this side of the equation. The savings ratio is the combined effect of both these flows – the net amount that households save once account is taken of their additional borrowing.

The chart shows that both the asset and liability sides of the savings equation expanded significantly in the late 1990s and the early part of this decade. However, new borrowing has grown more rapidly than the accumulation of assets – pushing down the overall savings balance until it recovered somewhat in 2005. Changes in borrowing have dominated the movements in the personal savings ratio over the last two decades at least, though as we saw earlier rising asset values have offset increased borrowing and personal wealth has increased.

There is something of a paradox here. When the personal savings ratio was at its highest in the early to mid 1990s, the acquisition of conventional savings vehicles by the personal sector was relatively low. By contrast, the recent high acquisition of financial assets has accompanied a low savings ratio!

Chart 6: Personal sector transactions in financial assets



Source: Office for National Statistics

This paradox is partly due to the fact that borrowers and savers are different people, and that while some households have been increasing their debts, others have been accumulating assets.[6] It also reflects the money multiplier at work – new money lent for house purchase flows back into personal sector accounts and builds up the deposits of banks and building societies. When personal sector borrowing and deposits are both rising rapidly, therefore, there is also likely to be strong growth of broad measures of the money supply – which is something we have also observed over much of the last decade.

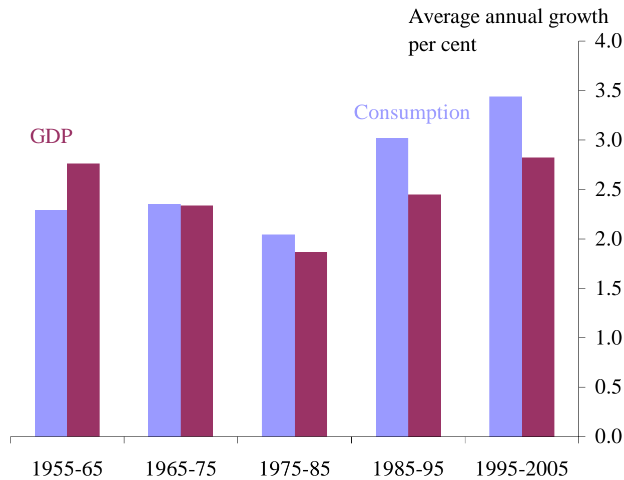
As Chart 6 shows, these more liquid assets are the main swing factor on the asset side of the equation for personal savings. Contributions to life assurance and pension funds are much more stable – though these have been boosted recently by the need for some companies to top up their pension funds.[7]

Consumption and the housing market

Saving decisions are the mirror image of the decision to consume; if I decide to save more I consume less, and vice versa. So it is not surprising that the fall in the personal savings ratio we have observed over the last decade has been associated with strong consumption growth.

[6] See Bean (2004) and Nickell (2005) for a more detailed discussion.
[7] Pension fund contributions made by companies on behalf of individuals count as personal savings in the UK National Accounts.

Chart 7: Consumption and GDP growth



Source: Office for National Statistics

Chart 7 shows that the ten years from 1995 to 2005 saw consumption growth of 3.5% per annum. This has been the strongest period of consumer spending growth over the post-war period, considerably above the historical average of 2.6% growth.[8] Some previous periods of strong consumer spending growth, such as the late 1980s, were associated with a significant pick-up in inflationary pressures. So why has that not happened this time round?

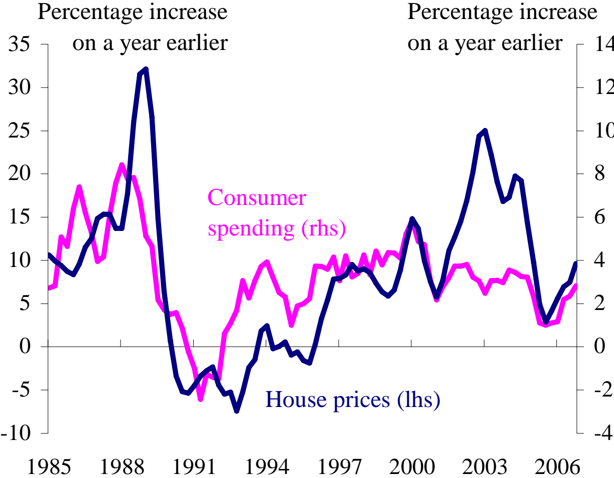
A number of factors have helped to prevent the strong consumer growth of the last decade spilling over into inflation. In the late 1990s, the economy took up slack in the labour market, as the unemployment rate was considerably above its long-run equilibrium rate in the mid-1990s. In the first half of this decade, the relative weakness of other components of demand growth – investment and exports – helped to offset robust consumer spending. Throughout the period, competitive pressures from global markets and a relatively strong exchange rate have helped to contain inflationary pressures by holding down import prices.

Recently, we have seen some of these pressures becoming less helpful in containing demand and price pressures – with stronger global markets and a recovery in investment boosting demand and more imported inflation coming through from high oil and commodity prices. Looking ahead, therefore, it is likely that more subdued growth in consumer spending will be required to keep inflation in check, at least for a while.

[8] The average growth rate prior to 1995 was 2.4%.

Another striking feature of the period of strong consumption growth we have seen over the past decade is that it has been associated with strongly rising house prices. This has led many people to see the housing market as a key driver of consumption and personal savings decisions.

Chart 8: House price inflation and consumer spending



Note: House prices shown are the average of Halifax and Nationwide price indices.

Source: HBOS, Nationwide and Office for National Statistics

As Chart 8 shows, there is clearly an association between house price inflation and consumer spending growth, but it is quite a loose and variable one. Recent house price inflation has not been as strongly correlated with consumption as in the late 1980s, and consumer spending recovered in the early 1990s against the background of a subdued housing market.

Economic theory suggests that if there is a permanent rise in personal wealth, then consumption should also increase. But housing has different properties to other assets – as higher house prices also raise the cost of housing at the same time as wealth is increasing. When house prices rise, people trading up in the housing market are potentially worse off. By contrast, those trading down are better off – and in net terms theses effects should balance. So it is not clear that the wealth effect can properly explain the relationship on this slide.

A more likely explanation is that the housing market and consumer behaviour are affected by common economic influences – in particular confidence about future income growth and the level of interest rates.[9] When this confidence is strong and or interest rates are low, both

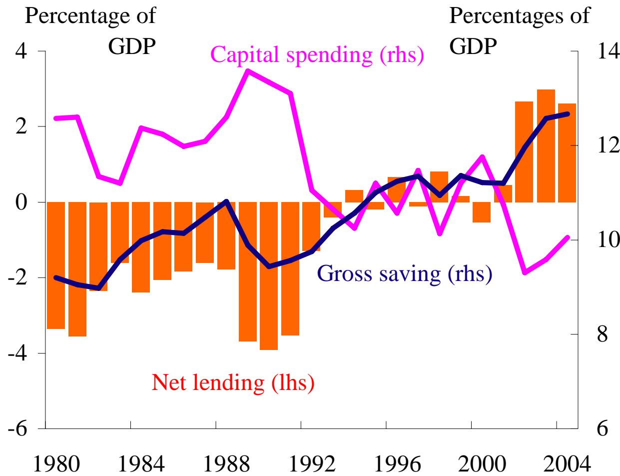
[9] See Barker (2005) for a discussion of the impact of low real interest rates on the housing market.

consumer expenditure and housing demand will be affected – pushing up house prices. There may also be spillovers into consumption from lending for house purchase and mortgage equity withdrawal.[10] Because of these linkages, it makes sense to monitor housing market developments to help understand how changing economic conditions are affecting household consumption behaviour – even though there may be no hard and fast causal link.

Corporate savings and investment

I mentioned earlier that personal savings are only part of the overall savings picture. Retained income by companies allows their shareholders to save indirectly by building up equity and a large part of business investment is normally financed from the retained earnings of companies – corporate saving.

Chart 9: Corporate saving and investment in major economies*



** G7 excluding Germany/West Germany.*

Source: IMF World Economic Outlook, *April 2006*

It is not only in the UK that companies are now saving more than they need to finance investment. Chart 9 shows that this is happening across our peer group of industrialised economies as well. According to the IMF, saving by companies from their operations in the G7 countries exceeded the amount needed to finance business investment in these countries by $1.3 trillion in 2003 and 2004.

[10] See Benito *et al* (2006) for a fuller discussion of the linkages between house prices and consumer spending

A number of explanations have been put forward for this excess corporate saving.[11] It might be a transitional phenomenon, as companies adjust to a world of lower interest rates, lower corporate taxes and falling capital goods prices. Other explanations are linked to the impact of globalisation on company strategy. Companies are choosing to buy existing assets in new markets rather than investing in new assets in their existing markets.

Another line of explanation focuses on the fact that major companies appear to have increased their desired cash holdings and have deliberately paid down debt to increase their ability to withstand shocks. This behaviour might seem rather puzzling when the last decade has also been described as the "Great Stability", a period of steady growth and low and stable inflation. However, evidence from both the US and the UK shows that while this is true at the macro level, at the micro level firms and industries have experienced more volatility over the last decade – as they have had to cope with an increasingly competitive global business climate and the shocks we have seen have affected firms and industries very differently.[12] This certainly rings true with me, given my recent background in the airline industry, which has seen unprecedented volatility from the global shocks over the last decade.

With these many different explanations, it is unclear whether the shift to excess corporate savings across a range of different countries will be sustained, or whether companies will expand their investment expenditure to absorb higher saving. This may already be happening as there are clear signs of a recovery in business investment in the UK – with official statistics, business surveys and the Bank of England agents' reports all pointing to strengthening capital spending by firms. Business investment also appears strong elsewhere in Europe and in Asia, and this would also be consistent with the healthy global demand conditions we see at present.

Such a recovery of investment should be welcome – adding to productive capacity and hence supporting rising living standards over the longer term. But if there is not some compensating reduction in other components of demand, there are inflationary risks in the short term – particularly against the background of a strong global economy. This reinforces the view that we may need to see more subdued growth of consumption (public or private) relative to the last decade, to allow a rebalancing of the economy.

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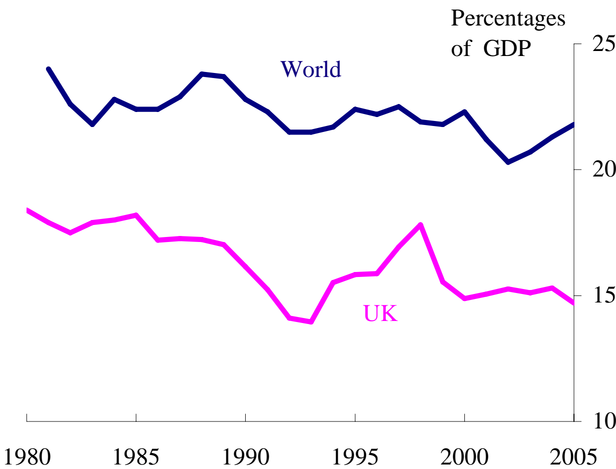
[11] See IMF (2006) for a comprehensive review.

[12] See Parker (2006) and Comin and Mulani (2004) for recent empirical studies suggesting that despite recent macroeconomic stability, firm level uncertainty may have increased.

Shifting pattern of global savings

Alongside the changing patterns of personal and corporate savings I have discussed so far, we have also seen significant shifts in the global savings picture.

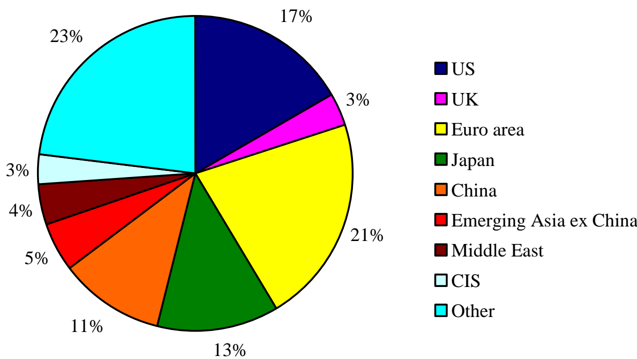
Chart 10: Global and UK savings



Source: IMF and Office for National Statistics

Like the UK, Chart 10 shows that the global savings rate has been on a declining trend in recent decades, with some cyclical fluctuations. The global savings rate as a share of GDP is about five percentage points above the UK, which probably reflects a combination of demographic factors and our better developed financial system – which allows more borrowing to finance consumption.

Chart 11: Source of global gross savings 2005

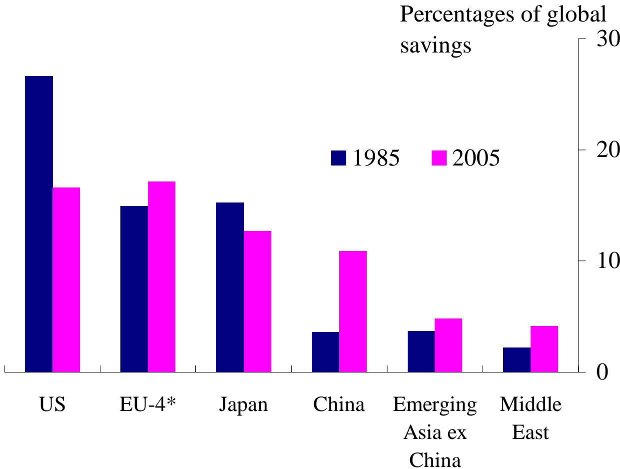


Note: Underlying data in current US $.

Source: IMF

Global savings – including the contribution of companies and governments as well as personal savings – totalled $9.7 trillion in 2005 and Chart 11 shows the geographical sources of that savings pool. The most striking fact is that China contributes 11% of the total – about two-thirds of the share of the United States, which is a much richer country. Though China's GDP is about 15% of the US total at market exchange rates, her high savings rate – around 50% of GDP – allows her to punch significantly above her weight in the savings world.

Chart 12: Changes in global savings 1985 - 2005



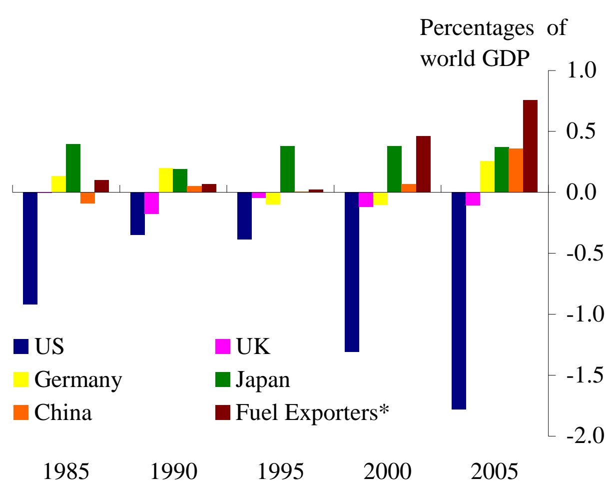
** EU-4: UK, Germany, France, Italy*

Note: Underlying data in current US $.

Source: IMF

The rise of China as a global savings power has happened over the last two decades and, as Chart 12 shows, it has been accompanied by a broadly equivalent decline in the US share of global savings. Recent growth in Chinese savings has been mainly generated by rising company and government savings. The savings shares of other regions have seen much smaller swings, though other emerging Asian countries and the Middle East are also now generating a bigger share of global savings than two decades ago.

Chart 13: Global current account imbalances



Note: Fuel exporters group comprises 23 countries, for details see IMF World Economic Outlook*, September 2006. Underlying data in current US $.*

Source: IMF

Chart 13 shows that these shifts in savings patterns have been reflected in growing current account surpluses and deficits across the global economy, which are the counterpart of savings and investment imbalances. As financial markets are liberalised and become more international, it is not surprising to see such imbalances emerge – as investment is no longer constrained by domestic saving and companies and individuals have better access to overseas sources of funds. However, the biggest imbalances suggest a flow of capital from Asia and other emerging markets to the United States - totally in the opposite direction to which we might expect. Countries like China with abundant labour supplies and good investment opportunities might be expected to attract capital from rich countries such as the United States with a high stock of savings, but in fact capital is currently flowing in the reverse direction!

A number of explanations have emerged to explain this somewhat counter-intuitive situation.[13] One view emphasises the role of risk-averse Asian investors looking for a safe home for their savings and not finding them in their domestic markets. Ben Bernanke, the US Federal Reserve Chairman, has argued that this creates a global savings glut and can also help to explain also why long-term interest rates are so low across the developed world. A more straightforward explanation would be that personal consumption is held down in China by an under-developed financial system, the absence of a developed social security system and an

[13] See IMF (2005) for a review of these explanations. Bernanke (2005) argues that there is a "global savings glut" and Caballero (2006) that there is a shortage of suitable assets for investors. See also the contributions of Obtsfeld and Rogoff (2005) and Miller and Zhang (2006).

artificially low exchange rate, which discourages consumption of imports. At the same time, demand in the US has been strongly supported by loose monetary policy in the early part of this decade – depressing the US savings rate.

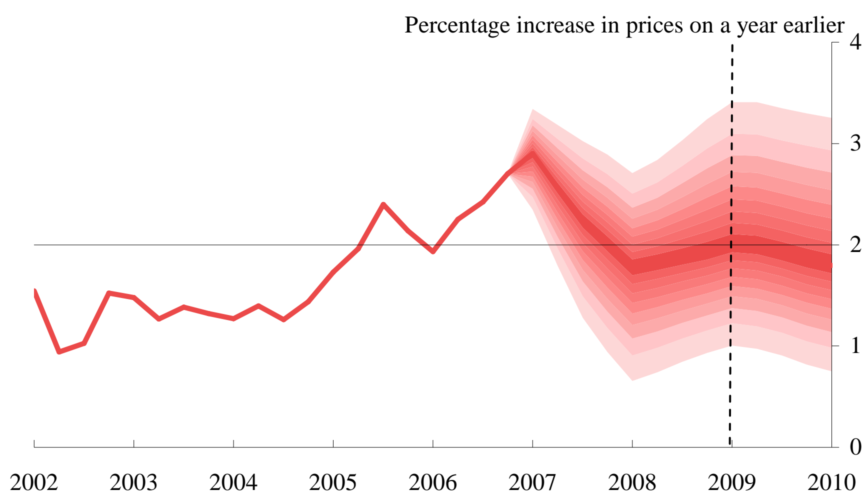
These views are not mutually contradictory and both may help to account for the significant current account imbalances which have emerged. Perhaps of more significance is whether an unwinding of these imbalances – if it occurs – is gradual and orderly or disorderly and associated with financial market turbulence. Indeed, worries about a disorderly unwinding of global imbalances may be adding to the recent volatility we have seen in world financial markets.

So far, there is optimism among the international institutions that an orderly unwinding can be achieved – though this may need to be associated with continued dollar weakness and slower US growth, as households there readjust to a more normal level of interest rates. And as long as European and Asian demand remain healthy, a period of more steady US growth should not be too disruptive to UK export and growth prospects.

Implications for monetary policy

So what are the implications of all this for monetary policy in the UK? The objective of the Monetary Policy Committee of the Bank of England is to keep consumer price inflation on target at 2%. Over the second half of last year, the inflation rate began to drift upwards away from that target, against the background of strengthening demand at home and abroad. The Committee has taken action with a series of interest rate rises help to keep demand pressures in check and to help ensure inflation returns to target in the future.

Chart 14: The February 2007 inflation projection



Note: CPI projection based on market interest rate expectations.

Source: Bank of England Inflation Report, *February 2007*

This chart shows the assessment from our latest Inflation Report on how this might happen – based on the prevailing market expectation of interest rates. The deeper red swathe highlights our central forecast, but the wide fan around it indicates our range of uncertainty. The main factor expected to help bring inflation back down in the short term is the downward impact of energy prices after significant rises in previous years. If these reductions prove more dramatic than our central projection has assumed, they could push inflation significantly below target. On the other hand, the growth of demand could lead to more general upward pressures on wages and prices, offsetting energy price reductions. That creates a risk that inflation remains above target for longer into the medium term. The judgements of the Monetary Policy Committee on the level of interest rates will depend significantly on how new evidence affects our assessment of this balance of risks.

My discussion today of savings trends is particularly relevant to the demand side of this equation and has highlighted a number of key issues. First, consumers' expenditure has grown strongly over the last decade, supported by a fall in the personal savings ratio and strong asset price growth. The conditions which ensured that such strong consumption growth was compatible with low inflation may not be sustained into the future. Global conditions may not be so benign, and unemployment is now much closer to its equilibrium rate than it was in the mid-1990s when the period of strong consumer growth started – increasing the risk of wage inflation. The sustainable growth of consumer spending going

forward is therefore likely to be closer to the historical average of around 2½ percent growth and lower than the recent trend of 3½ per cent.

Second, companies have been repairing their balance sheets in recent years and are now in a much stronger position to support higher business investment. This is already being reflected in stronger investment spending in the UK, other European countries and in Asia. A continued surge in capital investment would require some further restraint in other components of demand – notably consumer spending – if it is to be compatible with low inflation.

Finally, there are risks attached to the emergence of significant global imbalances. In the short-term the flow of savings from Asia and other emerging markets appears to have supported the growth in asset values in the US and other western economies, as investors have sought out save havens in more stable economies. This asset price inflation has probably helped to support the relatively strong global demand that we have seen over the past few years – and monetary policy needs to take that into account. However, perhaps a bigger worry for the future is a disorderly unwinding of these imbalances, and while this risk exists, we may see periodic bouts of financial market nervousness.

As we discovered in the Asian crisis in the late 1990s, the unwinding of current account imbalances can cause considerable financial turbulence and adversely affect demand prospects – and policy-makers need to respond appropriately if such conditions emerge. However, the appropriate response of monetary policy depends on the prevailing demand conditions. There is also the risk of repeating the mistakes of 1987, when loosening of monetary policy in response to falling stock markets was overdone and provided a further boost to the late-1980s demand-led boom.

A common theme to the developments I have discussed today is the need for a rebalancing of the sources of demand growth – at home and abroad. At home, more subdued consumption growth needs to accompany a recovery in investment if demand pressures overall are to be kept in check. Meanwhile growth in the global economy needs to become less dependent on the US consumer, and more strongly supported by demand growth from Europe and Asia. Both at home and abroad, there are encouraging signs that an orderly rebalancing of this sort can occur. But unexpected shocks may also emerge. The Monetary Policy Committee needs

to be prepared to respond to both scenarios, with the objective of keeping the UK economy on track to meet the inflation target over the medium term.

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