ITEM Club Special Report:

How hard will the credit crunch hit the economy?

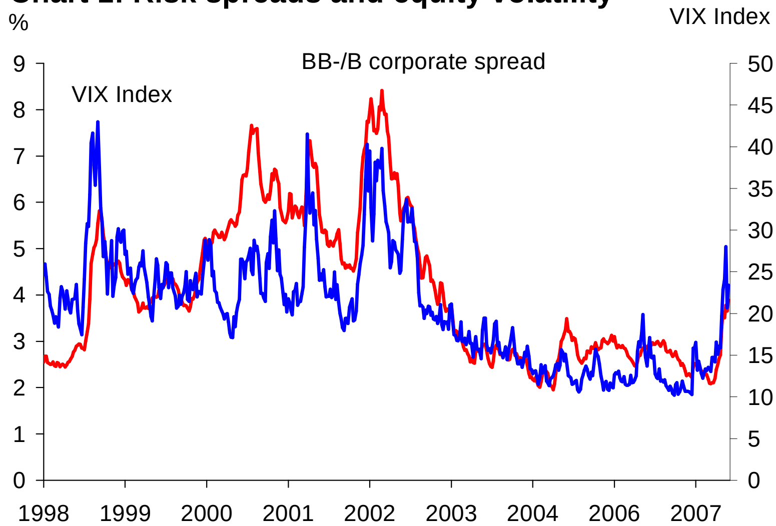
Key points

- Financial markets have been in turmoil over the summer as default risk aversion has spilled over from the US subprime market. The basic problem was that high risk mortgages had been bundled up with corporate debt in structured debt products, causing much wider contamination.
- Default risk aversion has made investors very wary. It has already collapsed the demand for commercial paper (CP) and other debt used to finance hedge funds and special investment vehicles that were investing in structured debt products.
- Banks have been using these vehicles to take structured debt off their balance sheets and reduce the regulatory requirement for shareholder capital. Now, as the CP falls due they are being forced to finance these funds directly, effectively bringing them onto the balance sheet and straining capital adequacy ratios.
- Unless these regulatory requirements are relaxed, banks have to raise capital or shrink their balance sheets to accommodate these funds. They also have to accommodate the LBO and other loans they were expecting to move off balance sheet to pension funds and other investors.
- Their initial response has been to reduce their lending to other banks in the interbank market. This liquidity squeeze has already pushed UK 3-month rates up to 6.9%. The risk is that if this situation persists they will attempt to reduce their lending to consumer and corporate borrowers.
- Disorderly conditions in money markets have contributed to losses in equity markets. Central banks have added large volumes of liquidity to try to offset this. However, the extra liquidity does nothing to relieve the strain on capital adequacy ratios and the likelihood of a consequent ‘credit crunch’ impacting economic activity.
- The prospect of a ‘double-dip’ in the US housing market poses a further risk to global growth. There are also downside risks in property markets in some European countries, which may be exacerbated by recent money market developments,
- The financial sector is also likely to slow. This has grown rapidly in recent years, particularly in the UK. A halving of the rate of growth of this sector would take 0.4% off UK growth. Additional knock-on-effects in related activities, such as the legal and business services sectors, would also be likely. Negative multiplier effects from reduced employment and lower bonus payments would be expected – the latter could have important ripple effects on the UK residential housing market.

Default risk aversion…

Financial market volatility has risen sharply since the start of June. The VIX equity volatility index spiked in August to its highest level since 2003, and credit spreads widened substantially – junk bond spreads rose by some 150bp between early June and late August. As risk aversion rose, issuance volumes in credit markets collapsed. This rise in volatility and risk aversion originated from concerns about the growing distress in the US subprime mortgage market. As a series of institutions revealed significant losses resulting from subprime exposures, investors fled from risky assets to safe havens such as government bonds – driving down long-term yields.

Chart 1: Risk spreads and equity volatility



Source : ITEM/Haver Analytics

But alongside this traditional 'flight to quality', there was also a collapse in liquidity related to concerns about counterparty risk. This in part reflected considerable uncertainty about the extent and distribution of losses among financial institutions – an uncertainty fed by the complicated nature of many of the structured products in which exposures to subprime mortgages and other risky asset classes are embedded. This uncertainty then caused the CP and inter-bank markets to seize up.

…has paralysed the commercial paper market…

The asset backed commercial paper (ABCP) market froze up as the normal purchasers of CP such as pension funds became concerned about potential losses at hedge funds and structured investment vehicles (SIVs) and so-called bank conduits that use the CP market to raise much of their funding. The global ABCP market was thought to be worth US$1200 billion over the summer. At the same time, investment grade companies like Sainsburys and BAE that rely heavily on CP have found themselves in difficulty, having to pay 30-40bp over LIBOR, 145-150bp over Bank rate.

…and hence the inter bank market…

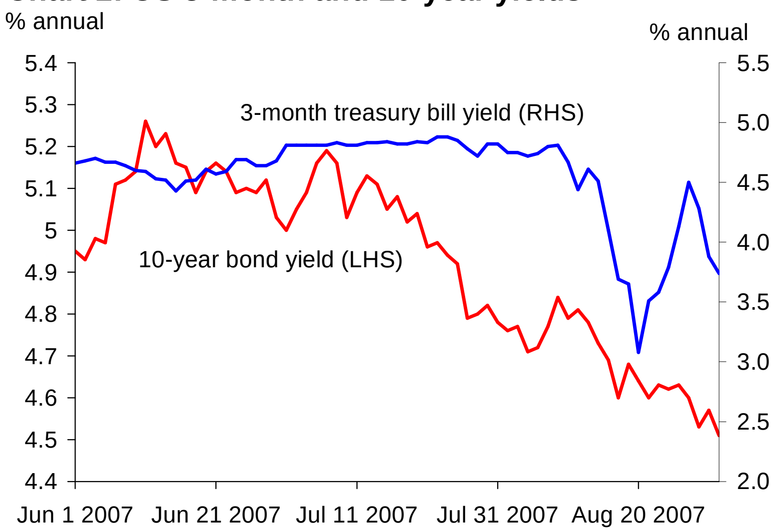
This in turn contributed to a squeeze in the interbank lending market as banks became reluctant to lend to one another, preferring instead to conserve cash to meet the upcoming redemptions of commercial paper. US$75 billion of paper is due for redemption over the next month in the dollar market alone. In the UK, Barclays has agreed to lend its 'SIV-lites' more than US$4 billion (Golden Key: US$1.5 billion; Mainsail II: US$1 billion; Cairn US$1.6 billion). The point is that although the losses on these transactions may be small – Barclays claims that its total loss on SIV-related transactions is unlikely to exceed £75 million – the balance sheet stress is likely to be very significant.

As a result of these pressures, short-term money market rates have been driven up to unusual levels – at the time of writing three month interbank rates in the UK were at 6.9%, 115 bp above Bank rate. Meanwhile, there has been a surge in demand for 'safe' short-term government paper, the yields on which fell sharply.

…threatening the equity market…

Losses on risky assets such as structured products and the liquidity squeeze in money markets combined to cause sharp losses in equity markets of up to 10-15% from their July peaks. In the face of these disorderly conditions, global central banks stepped in to add large volumes of emergency liquidity. The US Federal Reserve also cut its discount rate (the emergency lending rate) by 50bp.

Chart 2: US 3-month and 10-year yields



Source : ITEM/Haver Analytics

We have consistently argued that this is primarily a credit market rather than a stock market problem. Despite the headlines, private equity bidders are still in the minority in the takeover market – involved in about a third of bids seen over the last year. So far, most of the big UK takeovers (like BAA, Corus and Pilkington) have been by foreign trade buyers. Sovereign (overseas government) investment funds are increasingly involved, as in the mammoth Delta 2 (Qatari) bid for Sainsbury. Stock markets have been inflated by global liquidity but will now be supported by global growth and profitability, which remain very strong.

…and now this will hit the economy

Nevertheless there remains a serious question about the effect that this financial market turmoil will have on the real economy. There are several channels by which real activity could be affected, but concerns in recent weeks have focused mainly on the possibility of a 'credit crunch'. The fear is that balance sheet problems at financial institutions could lead to a general contraction in lending, spilling over into lower investment and weaker asset prices.

These balance sheet problems include both the direct impact of potential losses on risky assets and a more subtle effect linked to the need to bring off-balance exposures back on to the balance sheet. Looking at potential losses first, their potential scale does look large. The subprime mortgage market is US$1.5 trillion in size, and estimated losses (assuming a default rate of 15-20% and ultimate recovery of say 50% of the underlying assets) here could be in the region of US$100-150 billion.

But on top of this, there are also potentially large losses looming in other markets. Some US$300 billion of low grade (rated B- and below) corporate debt has been issued in the last three years, encouraged by unusually low default rates – in 2006 just 1% on speculative grade debt and just 7% even on CCC- paper. There is a risk markets may have assumed these low default rates would continue, in which case unexpected losses may emerge - just applying historical default rates (29% over three years for B- credit and 44% for CCC+ and below) suggests potential losses of US$30-40bn. Banks are likely to withdraw support from ailing companies, pushing up these default rates. Looking at LBO lending, which has totalled US$500 billion in the last year, even a 5% write-off would yield losses of US$25 billion.

Table 1: The potential scale of risky assets, US$

	Total Value	Potential Losses
Subprime mortgages	1.5 trillion	100-150 billion
Low grade corporate debt*	300 billion	30-40 billion
LBO loans**	500 billion	25 billion

* last three years' issuance
** last twelve months' issuance
Source:ITEM

Perhaps even more important than these direct losses – at least in the short-term – is the constraint imposed on the banking sector by capital adequacy rules. In recent years, banks have been getting round capital adequacy rules by setting up off balance sheet vehicles such as SIVs. Typically, these have borrowed funds in the commercial paper (CP) market and invested in longer-term structured products. But the CP market has now dried up, making it difficult to roll over the funding of these off balance sheet vehicles.

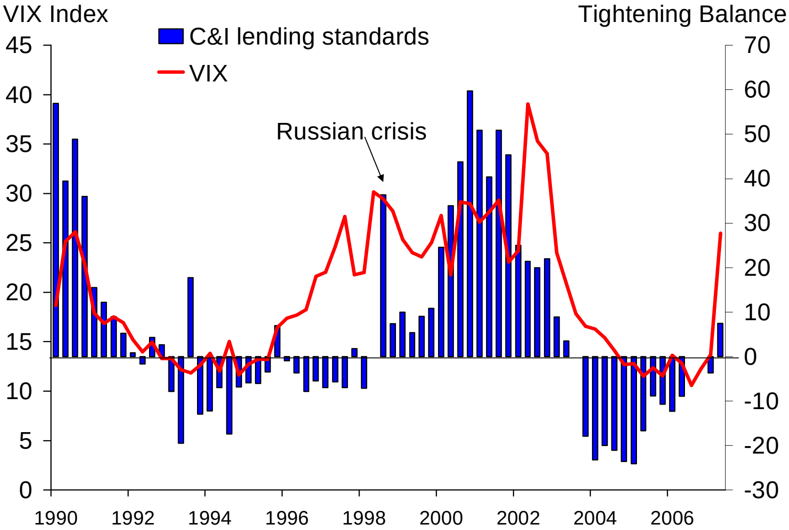
As a result, banks are being obliged to extend credit directly to replace the expiring CP – this implies bringing a large volume of assets back on to their balance sheets, possibly infringing capital adequacy ratios. Estimates of upcoming CP redemptions over the next month are of the order of US$80bn in the UK and US$250bn in the US. Banks also face another, related, problem in the form of unsold inventories of assets originally intended for on-sale to end investors. The scale of these inventories is estimated at around US$200 billion in the LBO market alone. If these cannot be unloaded, then they too will have to be brought on to the balance sheet.

The need to cover losses on risky assets and fund the 'repatriation' of off-balance sheet exposures leaves banks with a pressing need for cash, and limited options for raising it. In principle banks could try to raise additional capital via issues of new equity or subordinated debt, but in the current market environment this might be risky – if only because it might be misinterpreted as implying the issuing institution was in trouble. Alternatively, banks can sell high quality assets, putting further downward pressure on asset prices. Finally, there is the option of shrinking their balance sheets by cutting back on lending.

First signs of credit tightening…

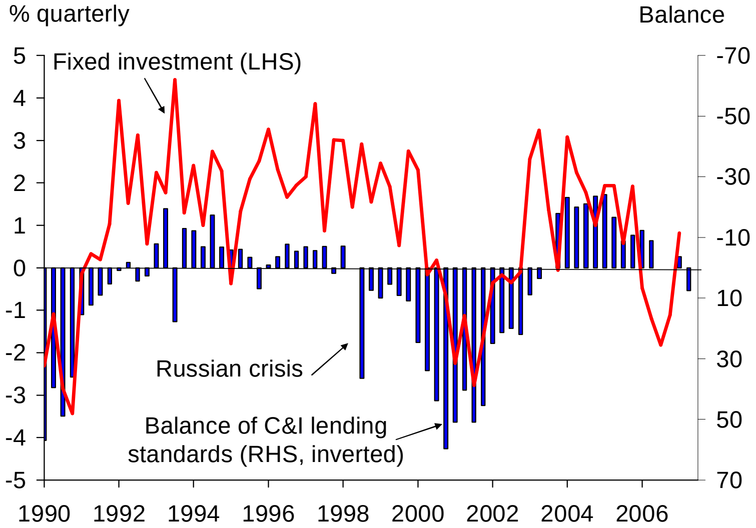
Previous periods of financial market volatility have seen credit supply weakening as lending standards have tightened – but the scale and duration of this effect has varied. In the wake of the 1998 Russia/LTCM crisis, the interruption to credit supply was relatively short-lived. The Fed Loan Officers' survey shows banks tightened credit notably in 1998 Q4 but soon loosened them again – leading to only a limited impact on investment. By contrast in the wake of the bursting of the dotcom bubble in 2000/2001 the tightening of lending standards was long-lasting and fixed investment weakened sharply.

Chart 3: Lending standards and financial volatility



Source : ITEM/Haver Analytics

Chart 4: US lending standards and investment

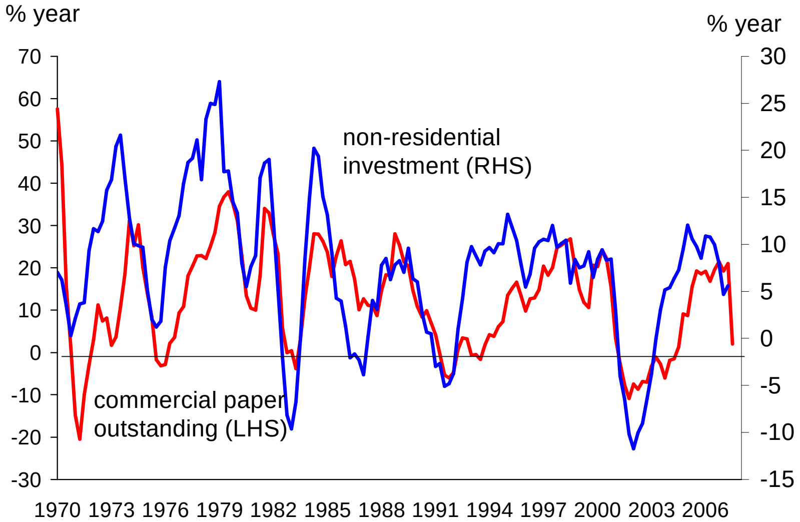


Source : ITEM/Haver Analytics

The scale of the recent rise in financial volatility certainly looks historically consistent with a significant tightening in lending standards. The latest information suggests such a tightening may already have begun, with the July US Loan Officers' Survey showing standards for commercial and industrial loans moving into mildly restrictive territory. This survey excludes the most serious period of recent volatility, however, so that the likelihood is that standards have tightened somewhat further since.

If lending standards do tighten significantly, then the historical evidence suggests there could be a significant impact on fixed investment. A simple regression model suggests that tightening on the scale seen in 1998, if sustained, could see US fixed investment growth cut to less than 2% per annum.

Chart 5 - commercial paper and investment



Source : ITEM/Haver Analytics

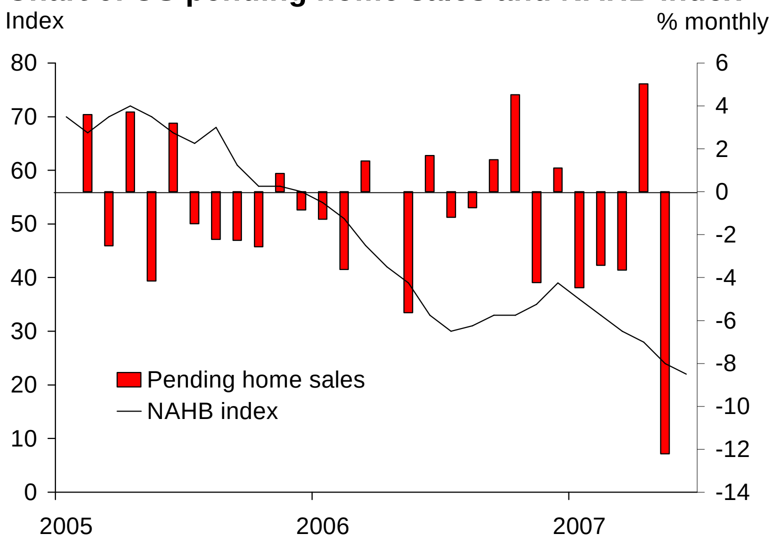
The recent developments in the commercial paper market also point to the risk of a disruption in credit supply to the wider economy. In recent weeks, the outstanding volume of commercial paper in the US has dropped by some 13% - a greater decline even than that seen in the wake of 9/11. Once again, the historical evidence suggests such a drop ought to be associated with a period of weaker fixed investment. In both the 1990/1991 and 2000/2001 US recessions, the trajectories of fixed investment and the supply of corporate paper were closely aligned.

In opposition to the above analysis, there are some reasons to think that fixed investment could hold up reasonably well. Firstly, the rise in borrowing costs so far seen by most firms has been modest, with mainstream corporate spreads only up 40-60bp – from what were low initial levels. Secondly, strong profitability means that internal funds for investment are plentiful. It does nevertheless seem likely that investment will slow to some degree in the near-term, as marginal borrowers are shut out and macroeconomic uncertainty dampens the ‘animal spirits’ of the corporate sector. It is also worth noting that Q2 data already showed surprisingly weak investment in both Japan and the Eurozone – the recent volatility could have come at a time when corporate investment was already showing signs of cyclical fatigue.

…and double-dip in US housing…

Property markets represent a further risk to global growth. The US housing sector has been weakening for some time, but towards the end of 2006 there had been some signs of a possible stabilisation. These have disappeared in the wake of the subprime crisis, and the housing sector now faces a ‘double dip’ which will continue to depress overall growth. The NAHB housing index dropped in August to its lowest level since the early 1990s recession, while pending home sales for July dropped by an unusually steep 12% on the month.

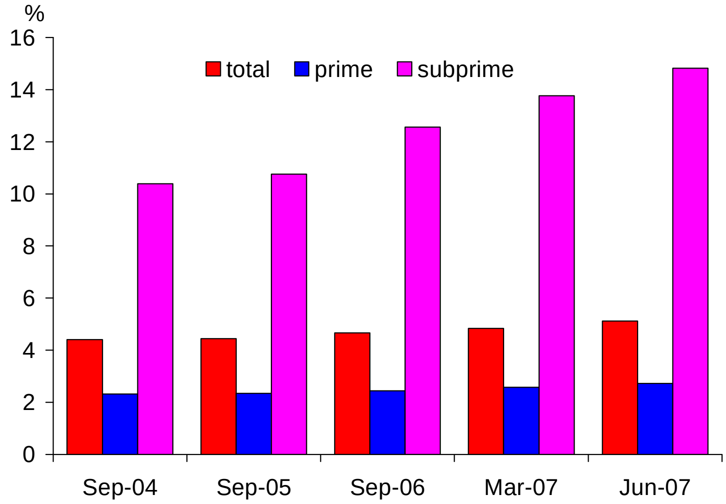
Chart 6: US pending home sales and NAHB index



Source : NAHB, NAR

The renewed weakening of the housing sector poses a direct threat to growth via lower construction activity, but also via negative wealth effects on consumption - most measures now show house prices dropping at around 2-4% per annum. The risk also looks to be for a further rise in mortgage delinquencies, which would add to the risk of a generalised credit crunch. Q2 data from the MBA survey showed 5.1% of all loans were delinquent (up 73bp on a year before), including 14.8% of subprime loans (up 304bp on the year) and 2.7% of prime loans (up 23bp). The foreclosure start rate is running at the highest level since the survey began.

Chart 7: US mortgage delinquencies



Source : ITEM/Mortgage Bankers' Association

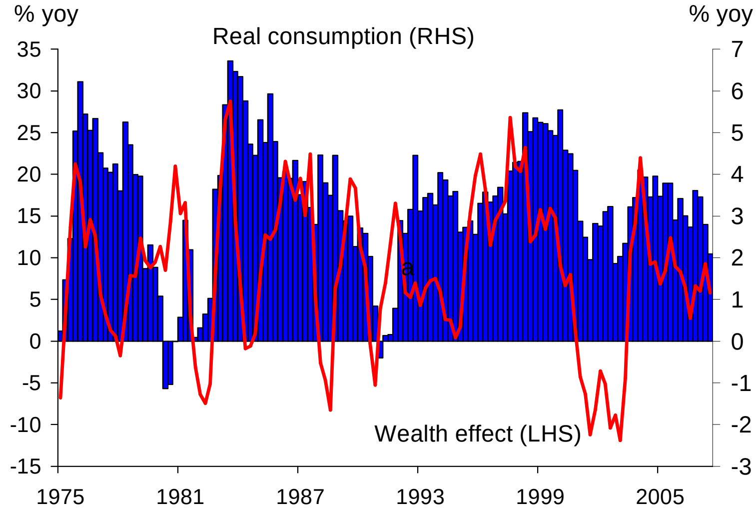
There are also concerns about the outlook for some property markets outside the US. In some of the smaller European countries, notably Spain and Denmark, the housing sector is already cooling rapidly, and concerns also remain about the outlook in the UK. Some two million households in the UK face a significant rise in mortgage interest costs toward the end of this year as cheap fixed rate mortgages expire.

On top of this, variable rate mortgage costs have also been forced up due to the recent liquidity crisis – three month interbank rates have risen to more than 1% above BoE base rates, obliging institutions reliant on wholesale funding to sharply increase their lending rates. It also seems very likely that credit standards for mortgage applications – especially of the non-traditional sort – will be tightened going forward.

…bringing risks to consumption…

The US consumer has proved resilient in recent downturns, with some evidence that wealth effects from housing are asymmetric – significant when house prices are rising, rather less so when they are weak. The drop in equity prices so far has also been relatively modest, compared with previous crises, implying that the overall wealth effect is limited. Indeed, a 50-50 index based on house and stock prices suggests wealth effects remain mildly positive.

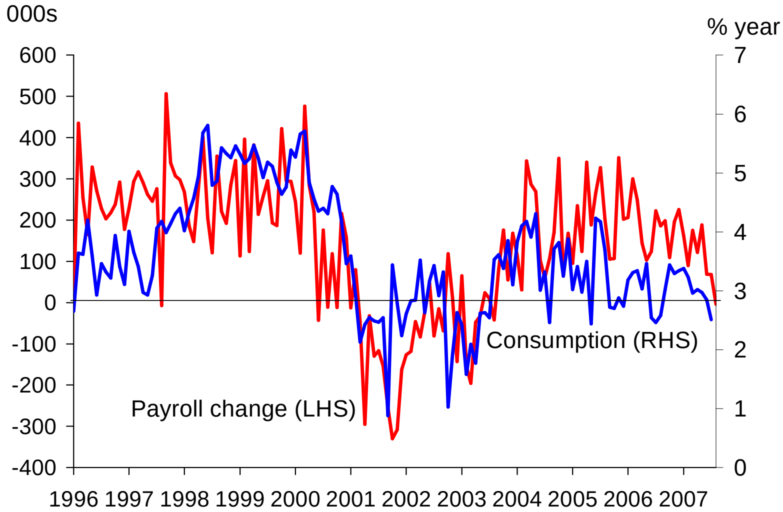
Chart 8: US consumption and wealth effect



Source : ITEM/Haver Analytics

Another factor traditionally cited as limiting the downside to consumption in the US is the robust labour market. But while employment growth was certainly robust in the early months of this year, the latest payroll data suggests a significant weakening in hiring. August data actually showed a net drop of 4k in employment – the first drop in four years – while in the three months to August the average monthly payrolls gain was just 44k compared to 147k in January-May. The pattern of job losses in August, with big losses in manufacturing and construction, suggested that housing sector weakness was spreading to other sectors of the economy even before the recent bout of financial sector volatility.

Chart 9: US payrolls and consumption



Source : ITEM/Haver Analytics

The latest evidence on loan standards also suggests the consumer could bear the brunt of any credit crunch. In the quarter to July, standards for ‘other consumer loans’ were tightened by the greatest extent since 2003. In addition, banks’ willingness to extend consumer instalment loans fell to its lowest level since 2002. As a result, with personal

consumption already having weakened notably in Q2 to a 1.4% annual rate, there looks to be a real possibility of a sustained period of subdued consumer spending.
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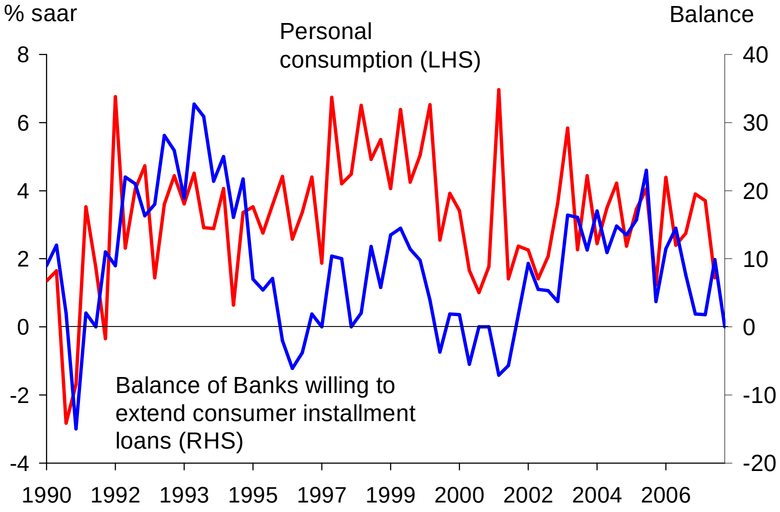
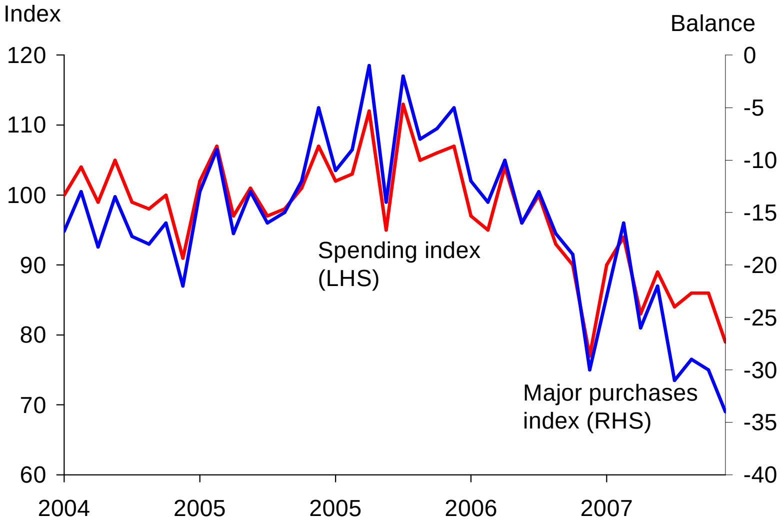
Chart 10: US consumption and loan standards



Source : Oxford Economics/Haver Analytics

Elsewhere in the world, Eurozone private consumption grew at a relatively subdued rate in 2007H1 of 1.6% annually, but the risk from wealth effects looks less significant there with the exception of some of the smaller countries – the Eurozone property market peaked some time ago and the sensitivity of consumption to stock price moves is lower than in the US.

Chart 11: UK Nationwide consumer confidence



Source : ITEM/Haver Analytics

In the UK, there looks to be a greater risk of a consumer slowdown, as real incomes are stagnant and interest costs are rising. So far, the hard data has held up surprisingly well, but there are indications of weakness in some of the survey data. The major purchase and spending indices of the Nationwide consumer confidence survey fell sharply in August – perhaps the first sign that financial market volatility is bringing a more cautious attitude among consumers.

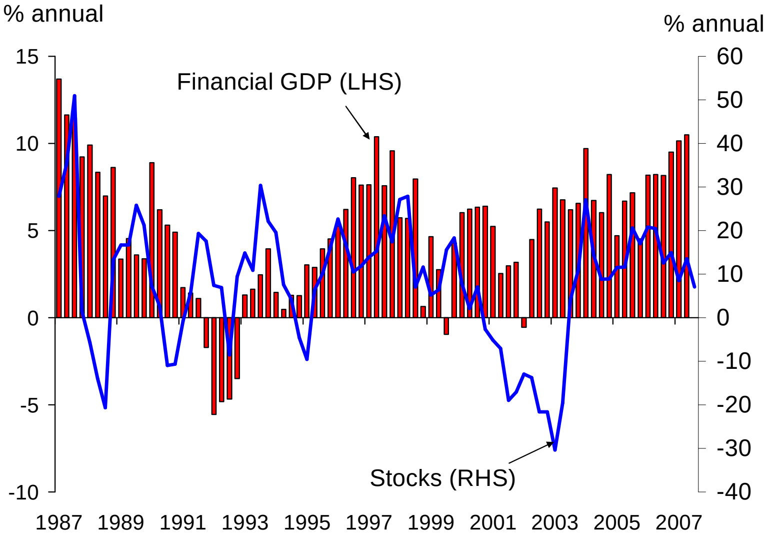
..on top of financial sector vulnerability

As well as the housing sector, there is a further important subsector of the global economy which is especially at risk in the current environment – the financial sector. Recent years have seen strong growth in global financial services and the financial sector has made a disproportionate contribution to growth in the US and especially the UK. In the US, financial services account for around 8% of GDP and having grown by 4.5% in 2006 accounted for 0.4 percentage points of overall GDP growth. In the UK, the sector has been even more dynamic, expanding at a double digit rate in the first half of 2007 and contributing 0.8 percentage points to overall growth.

But this rapid growth has been intimately linked to expansion of the markets for LBOs and structured products – precisely the sectors which are now contracting rapidly. As a result there is a risk of a significant direct impact on growth from weaker financial services GDP – even a halving in the rate of expansion would cut 0.2 percentage points off US growth and 0.4 percentage points off UK growth. Historical experience suggests such a scenario is not unrealistic – in the four quarters from December 1998 to September 1999 UK financial sector growth dropped to just 1.8% year-on-year from an average of over 7% in the previous four quarters.

Morever, the impact of a weakening financial services sector would be likely to extend beyond the direct 'output' effect. Firstly, there would likely be negative knock-on-effects on related industries in the 'financial and other business services' group – which accounts for some 29% of UK GDP and has contributed as much as 50% of recent GDP growth. In addition, negative multiplier effects from reduced employment and lower bonus payments might be expected – the latter could have important ripple effects on the UK residential housing market.

Chart 12: UK stocks and financial sector GDP

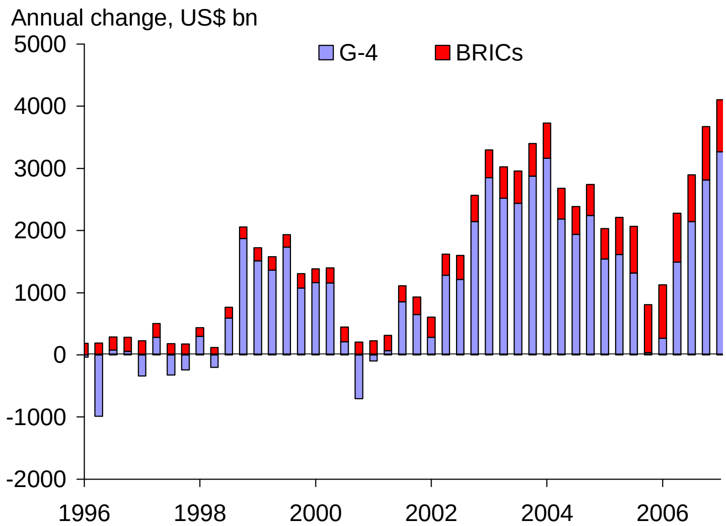


Source : ITEM/Haver Analytics

Emerging markets more resilient…

Thus far our analysis has centred mostly on the US and other G7 countries, but what about emerging markets? In the event of a credit crunch among the major economies, we would expect to see a sharp drop in the volume of international capital flows – traditionally bad news for emerging markets.

Chart 13: Components of global monetary growth



Source : ITEM/Haver Analytics

But while there are risks for some countries with large external deficits, the emerging market world as a whole looks much less vulnerable than in the past. Improvements in policy frameworks and a turnaround in external accounts have made countries like Brazil masters of their own destiny to a far greater degree than in the past. The BRICs and other emerging economies are much less dependent upon leverage and structured finance than developed economies.

In addition, a subset of emerging market countries may even prove to be a important source of support for global liquidity and growth in the period ahead. It is notable that in recent years broad money growth in China, Russia and the OPEC countries has been around 35% of that of the UK, US, Eurozone and Japan combined. This source of liquidity is unlikely to dry up soon, given its basis in structural trade surpluses supported in some cases by high oil prices.

Conclusion – how big a slowdown?

At present, forecasting the ultimate impact of the recent financial volatility is a precarious undertaking. There is clear evidence of a serious interruption to the corporate paper markets, and there have been a few signs of weakness emanating from the high frequency data on consumer confidence. There is also evidence that financial institutions have begun to tighten credit standards and pass the higher cost of funds onto borrowers. Corporate rates are in the main linked to LIBOR, while the Bank of England’s latest survey of mortgage rates shows an increase right across the board. The average standard variable rate rose by 25bp to 7.69% in August, having lagged increases in the base rate in earlier months.

However, the extent of the likely ultimate impact on real consumption and investment will not become clear until a much greater volume of data is at hand – a timescale of months rather than weeks. The November bank reporting season will be critical this year.

Table 2: Global impact of the credit crunch

	2007	2008	2009
US	1.9	1.3-1.7	1.3-1.7
Eurozone	2.7	1.4-1.8	1.4-1.8
Japan	2.2	0.7-1.1	1.3-1.7
UK	2.9	1.2-1.6	1.7-2.1
Baseline scenario			
US	2.0	2.6	3.0
Eurozone	2.7	2.3	2.1
Japan	2.2	1.7	2.2
UK	2.9	2.5	2.4

Source: ITEM

The channels by which a significant slowdown could occur are, however, clear. Banks currently face the need to cover their losses on structured products and absorb off balance sheet items and inventories of unsold assets into their balance sheets - a process which could lead to a general reduction in lending and downward pressure on asset prices. Ultimately, there could be a slowdown in consumption and investment as a shortage of credit and negative wealth effects bite.

We estimate that a full-blown ‘credit crunch’ scenario - featuring a 25% peak-to-trough drop in stocks, a 1% rise in corporate borrowing rates, a 2% rise in emerging market spreads and faster yen appreciation - would reduce UK growth by around 1% point in 2008 (to between 1.2%-1.6%) and 0.5% points in 2009 (to 1.7-2.1%). For the US, growth in 2008-9 would be around 1.5% points lower. For the Eurozone, the reduction would be 0.8% points in 2008 and 0.5% points in 2009.

Such a scenario still seems some way off – the drop in prices so far falls some way short of that modelled above and is also less than that seen in 1998-1999 and 2000-2001. In the wake of those two previous crisis periods, stocks fell 15-20% from their peaks – around double the decline seen at the time of writing.

It is also arguable that the latest real economy data - while having some notable weak spots - still indicates a reasonably robust picture. However the scale of the potential downside risk does appear to be having an impact on the thinking of global central banks. Initially, central banks reacted to the recent volatility mainly by attempting to offset the worst of the disruptions to market liquidity. This approach may be gradually be shifting, however – the Bank of England, the Bank of Japan and the ECB recently kept rates on hold despite previously hinting at likely hikes. The Fed has hinted strongly at a possible Fed Funds cut as soon as next week.

More ‘nursemaiding’ by central banks, along the lines of 1998/1999 may still prove to be necessary to ward off the threat to growth from the current financial market volatility. There may also be a need on the part of the authorities in the major economies to consider a temporary relaxation in regulatory requirements to ease the impact of the balance sheet adjustments now facing banks. Such a move would carry risks of creating ‘moral hazard’, but there is a recent precedent in the shape of the move in the UK in early 2002 to relax capital adequacy rules for pension funds in order to reduce the pressure for forced sales of equities. Finally, the authorities may also need to consider taking action to shed more light on the scale and distribution of losses in the structured products sector – it may prove difficult for ‘normal’ lending to resume until current concerns about counterparty risk are allayed.