The financial stability conjuncture and outlook

Overview: risks to financial stability

This latest Bank of England review of global and UK financial stability suggests that some of the risks flagged in previous *Reviews* have crystallised over the past six months. That mainly reflects the slowdown in the US, and the associated sharp decline in global demand for information and communications technology (ICT). A US slowdown was, however, necessary if a further accumulation of imbalances and risks was to be avoided. Faced with these developments and the related correction in telecom and technology company equity prices – a 'natural stress test' – the international financial system (at least to date) has been resilient, perhaps aided by the substantial capital accumulated from high profits in recent years. That should also help internationally active banks, taken as a group, face the global economic slowdown, an associated rise in credit risks, and some continuing market risks.

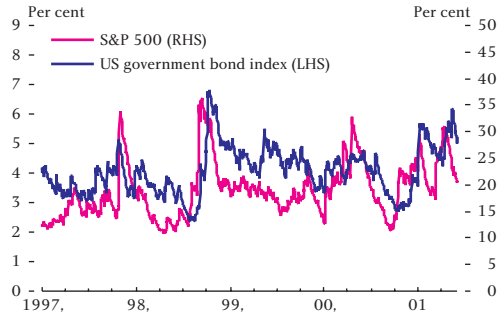
Changes in the financial market environment

A year ago, the pace of growth in the United States appeared unsustainable, but there was uncertainty about the timing and degree of any slowdown and about the extent to which other countries would be affected. Since then, a significant weakening in growth has become evident, extending beyond the United States.

Against that background, the volatility of many asset prices has at times been high (Chart A), implying increased market risk. Forward-looking measures, derived from options prices, of volatility in 'new economy' equity markets were for a while very high, but have fallen back recently (Chart B). Most equity price indices dipped sharply in March, but subsequently recovered somewhat. Broad indices are now nevertheless a little lower than at the time of the December *Review*. Correlations of returns across different regional equity markets and industry sectors have generally increased, perhaps reducing the scope for portfolio diversification to reduce risk.

The sharp equity price movements suggest considerable uncertainty about future corporate earnings. Taken together with small falls in equity markets, this might have been accompanied by increased concerns about credit risk in bond markets. In fact, average spreads for investment-grade bonds in most industrial

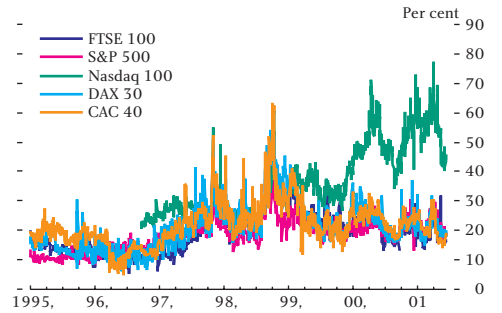
Chart A:
Historical volatility of US equities and US government bonds[a]



Sources: Thomson Financial Datastream and Bank calculations.

(a) Volatility calculated as annualised 252-day rolling square-root of exponentially weighted moving average of squared daily log returns.

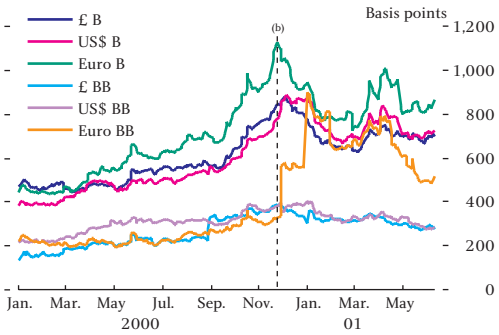
Chart B:
Equity index implied volatility[a]



Source: Bloomberg.

(a) Nasdaq series begins in 1997.

Chart C:
Sub-investment-grade corporate bond spreads: US dollar, euro and sterling[a]

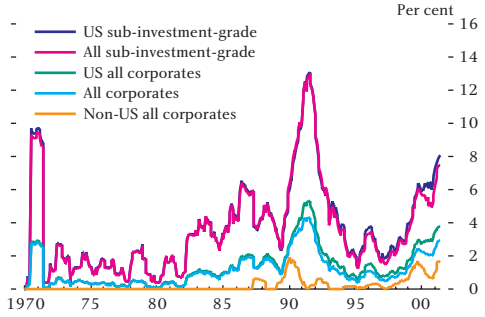


Sources: Merrill Lynch and Bloomberg.

(a) High yield indices spread over maturity-matched swap rates.

(b) December 2000 *Review*.

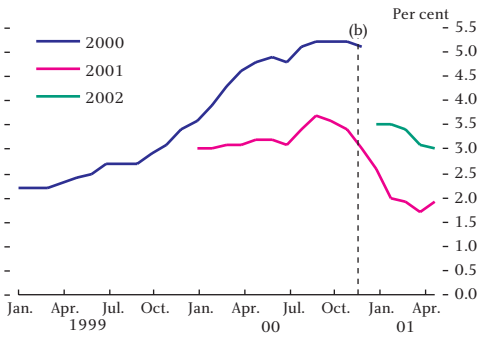
Chart D:
Moody's trailing twelve-month default rates[a]



Source: Moody's Investors Service.

(a) Defaults in the previous 12 months divided by the number of issues in the rating category 12 months previously.

Chart E:
Consensus forecasts for US GDP growth[a]



Source: Consensus Forecasts.

(a) Mean of forecasts.

(b) December 2000 *Review*.

countries are broadly similar to their levels last December, while average sub-investment-grade spreads are lower (Chart C).

This apparent improvement in forward-looking indicators of credit risk – some telecoms firms and emerging market economy sovereigns excepted – also contrasts with increases in profit warnings; a net balance of ratings downgrades; and rising bond default rates (Chart D), although that may be explained partly by the rising proportion of sub-investment-grade issuance in recent years. The reduction in spreads from their peaks at the turn of the year might also in part reflect improved market liquidity rather than reduced credit risk. Liquidity in the US dollar and euro sub-investment-grade bond markets dried up in late 2000, and rates on lower-rated US commercial paper increased over the year-end and into 2001.

While, according to the Federal Reserve's Senior Loan Officer Survey, bank lending conditions for US corporates are tighter than six months ago, they have perhaps eased back a little recently; and there have been few signs of a generalised credit crunch in international banking or capital markets. In particular, although some borrowers have had to concede higher spreads, bond issuance has been strong this year. By contrast, the market for initial public offerings of equity has been more difficult, constraining one important exit route for banks' and others' venture capital investments.

Sources of risk

The major potential sources of risk are considered below. As usual, the focus is on downside risks rather than the most likely outlook, reflecting the *Review's* objective of identifying potential threats to stability. It is intended partly to give an idea of some of the scenarios that risk managers and regulators might wish to consider in 'stress tests'.

Uncertainty about the US outlook

There have been sharp falls in expectations of US growth in 2001 (Chart E), accompanying a fall in private sector ICT investment. It is particularly unclear what path the US economy will now follow, notwithstanding the robust monetary policy response and the recent fiscal package. First, there might be an early recovery after a relatively short slowdown – more likely if the slowdown was caused by a more-rapid-than-usual inventory correction and a temporary pause to ICT investment after a heavy wave of spending. Second, there might be a longer cyclical downturn, from a more protracted inventory adjustment and more pronounced 'accelerator' effects from the slowing of investment and the lengthening of the economic life of recently installed ICT equipment. The inventory correction in the ICT sector does not seem to be as far advanced as elsewhere in the economy. Third, household saving may rise in order to adjust balance sheets to positions more obviously sustainable in the long run,

with consequences for aggregate demand and therefore the timing of recovery. Fourth, the cyclical downturn might be exacerbated if any doubts were to develop about the prospects for productivity growth in the long run, leading to changes in savings behaviour and falls in asset prices as expected returns and incomes were marked down.

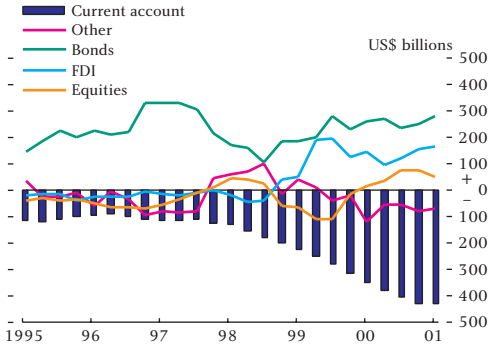
While these scenarios are not of course completely independent, broadly the second and third would have more serious implications than the first for credit risk; while the third and fourth would also heighten concern about asset market and exchange rate risk. But there has so far been no evidence of a deterioration in willingness to hold US assets – net capital inflows to the United States have apparently continued at a rapid rate, sustaining a large current account deficit and maintaining the strength of the dollar (Chart F).

Concerns about credit risk arise partly because household and corporate sector vulnerability to a slowdown is increased by their high levels of debt. In the household sector, saving rates (measured in a variety of ways) are abnormally low. The gearing (at book value) of the corporate sector has been steadily increasing in recent years (Chart G), and 'highly leveraged lending' has become a more important source of financing, especially for M&A-related activity. Business and non-business bankruptcies have risen over the past six months, and some loan problems have already emerged. In the corporate sector, this has been concentrated in particular industries or regions (eg California), and amongst syndicated and especially leveraged loans. In the household sector, losses have been registered in the sub-prime market, which has expanded in recent years. To an extent, recent losses may reflect somewhat relaxed lending standards – particularly in leveraged lending – in 1995-98; problem loans can take a few years to become manifest. Looking ahead, another possible area of concern is real estate; the downturn in the high tech sector has recently raised vacancy rates and had a localised impact on property markets. Compared with the downturn in the early 1990s, banks may benefit, however, from their increased regional diversification and from greater non-bank participation in US loan markets.

The technology, media, and telecommunications sector

US technology, media and telecommunications (TMT) equity prices have fallen by over 50 per cent since the March 2000 peak (Chart H). But the reassessment has been worldwide: TMT equity index returns have been strongly correlated across countries, partly because the industries are highly integrated, and partly reflecting common changes in the way investors value the sector. Since last autumn, it has become evident – as it should perhaps have been already – that TMT stocks are not immune to cyclical downturns, and as a result the risk premium embodied in their prices may have increased. The TMT sector is

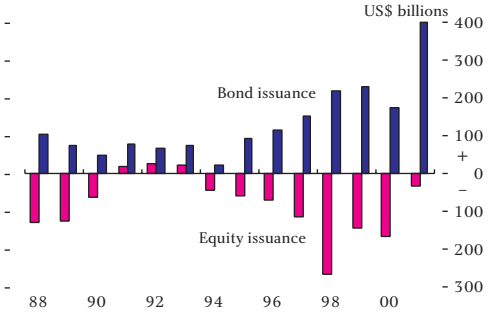
Chart F:
Net capital inflows to the United States[a]



Source: Board of Governors of the Federal Reserve System: 'Flow of Funds Accounts of the United States 2001', Q1.

(a) Four-quarter moving average at an annualised rate.

Chart G:
Net US corporate equity and bond issuance[a][b]

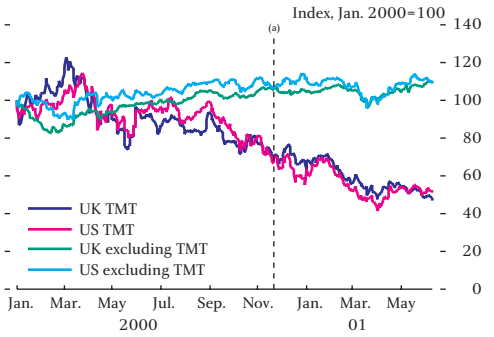


Source: Board of Governors of the Federal Reserve System: 'Flow of Funds Accounts of the United States 2001', Q1.

(a) Average quarterly issuance, seasonally adjusted.

(b) 2001 figure for first quarter 2001.

Chart H:
TMT and non-TMT share prices, UK and US



Source: Thomson Financial Datastream

(a) December 2000 *Review*.

policyholders and yields obtainable on yen assets; and there may also be bad debt problems in some public sector financial institutions. Some have argued that a determined programme of structural reform has the potential to stimulate confidence, and to encourage investment by a corporate sector constrained by its debt burden. While structural reform is clearly needed, there is a risk that in the short term it might lead to corporate closures and cut-backs, pushing up unemployment and reducing consumer confidence just when consumer spending needs to be encouraged. The effect would depend partly on who would bear any losses from the process, which is not yet clear. Also, the rapidly increasing public debt burden may at some point begin to constrain the government's capacity to finance large-scale restructuring.

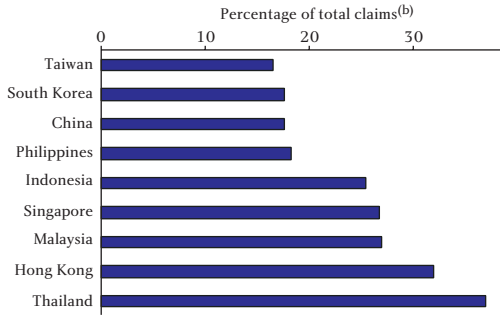
An important issue in the context of macroprudential surveillance is whether, in the event of more acute problems emerging in Japan, there might be effects on financial stability more widely. Emerging market economies in Asia would be adversely affected via trade and investment links, and through the impact on finance from the Japanese banking system (Chart L). Links with the international financial system include the foreign exchange forward and interest rate swap markets, involving counterparty and market risk, and cross-border capital flows. There have been some suggestions of internationally active banks stepping up efforts to manage exposures to Japan.

Emerging market economies

Some emerging market economies (EMEs) – such as the relatively export-dependent economies of Asia – are particularly vulnerable to the global slowdown in demand growth (Chart M). 'Credit events' amongst them would risk amplifying the financial stability impact of the slowdown. Some other EMEs, by contrast, have benefited from the widespread cuts in interest rates in industrial countries, which have allowed them to relax their own monetary policies. On balance, the risks to EMEs' macroeconomic and financing prospects have probably increased. But there is also evidence that investors are discriminating amongst borrowers to a greater extent; for example, Chart N indicates how the dispersion of credit spreads on EME sovereign bonds has widened over the past few years.

Two countries in particular – Turkey and Argentina – have experienced more pronounced difficulties since the December *Review*. Turkey suffered a currency crisis in February, prompted by political tensions, which was exacerbated by, and has had an adverse impact on, banks' balance sheets. But the risk of spillovers outside Turkey does not appear to be serious. In Argentina, sovereign yield spreads and short-term interest rates rose sharply again in late March in the face of increased political uncertainty (Chart O), and there was a significant outflow of deposits from the banking system. Although

Chart L:
Consolidated claims of Japanese banks on individual Asian EMEs[a]

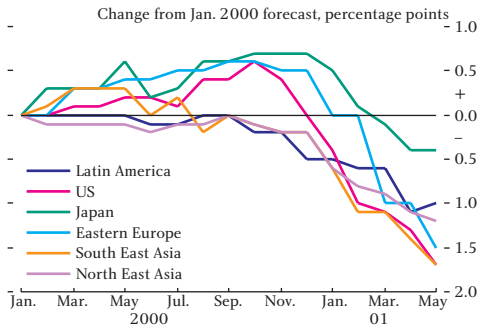


Source: BIS.

(a) Not adjusted for risk transfers.

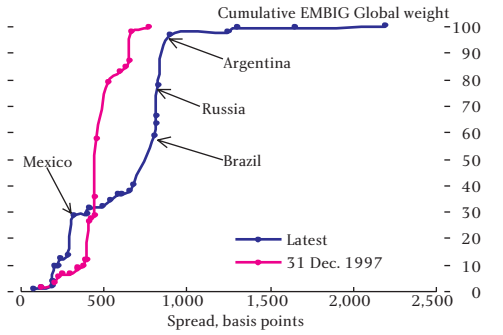
(b) Share of total claims of BIS-area banks on each country.

Chart M:
Changes to Consensus Forecasts for GDP growth in 2001



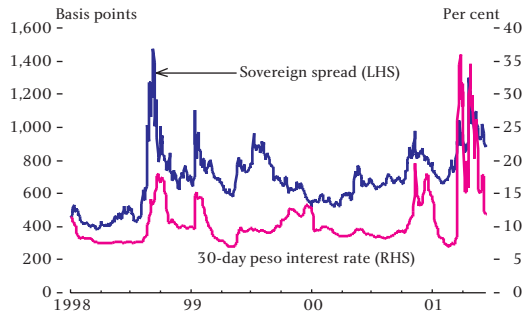
Source: Consensus Forecasts.

Chart N:
EME sovereign US$ bond spreads: snapshot cumulative distribution



Source: JP Morgan Chase & Co and Bank calculations.

Chart O:
Argentina: sovereign US$ bond spreads and short-term peso interest rates



Sources: JP Morgan Chase & Co and Bloomberg.

conditions have improved since, there is little evidence that economic growth has resumed. If there were to be any future difficulties, there is some risk of spillovers to countries with close links to Argentina, such as Brazil. There would only, however, be an effect on financial stability generally if developments were to trigger more widespread falls in EME asset prices, re-assessments of EME assets as a class, or reduced liquidity in EME debt markets. Argentinian debt accounts for nearly a fifth of emerging-market bond indices; and industrial-country banking-system credit exposures to Argentina are large relative to exposures to most other EMEs – but small relative to their overall credit exposures. The risk of widespread spillovers from any further disturbances is, therefore, probably small, but could conceivably be somewhat greater for financial systems with relatively concentrated EME exposures, such as Spain's to Latin America (see Box 4).

The international financial system

Taken together, economic and financial developments in the past six months have had mixed effects on the environment in which banks and other financial firms operate. On balance, the bad news about growth prospects in the near future has probably been the most important factor. But so far the financial system has proved resilient in the face of these strains – a form of 'natural stress test'. There appear to have been few problems in dealing with trading losses or margin calls, and the financial market infrastructure has been robust. Market liquidity has been unimpaired on the whole. At present, an increase in bank credit risk is probably of as much concern as risks from sharp price movements in capital markets. So far, provisions and non-performing loans have tended to remain low in most industrial countries' banking systems – Japan excepted – perhaps partly because they are backward-looking measures. Internationally active banks in general have continued to report at least adequate rates of profit, increases in capital, and lower loan loss reserves relative to the stock of outstanding loans. Their exposures to EMEs – an important source of sharp changes in loan losses in the past – have generally fallen.

The robustness of the international financial system depends importantly on the design of the financial infrastructure and on effective risk management in firms themselves. There has been progress on both fronts. Section IX reviews a number of initiatives designed to reduce risks in the system and to improve the arrangements for handling crises if they arise. One of the more important – particularly given growing use of swaps as a fixed income benchmark – is the London Clearing House's central clearing of swap trades, SwapClear. Within firms, it seems that greater use is being made of risk management tools, with value-at-risk calculations being supplemented more frequently – especially at large global groups – by stress testing

and scenario analyses, as recently reported by the Committee on the Global Financial System[1].

Developments in the international loan market are affecting risks in different ways. On the one hand, the increasing transfer of loan exposures and/or credit risk outside the banking system should help to disperse risk, provided it would not flow back to the banks if conditions deteriorated. On the other hand, banks register concerns about the terms of committed credit lines, which – as a number of recent US cases have underlined – can sometimes be drawn down by companies in difficulty. Competition to provide these lines seems to remain intense (with companies now looking to investment banks as well), but most bankers believe they are underpriced – a 'loss leader' to win higher return capital market business.

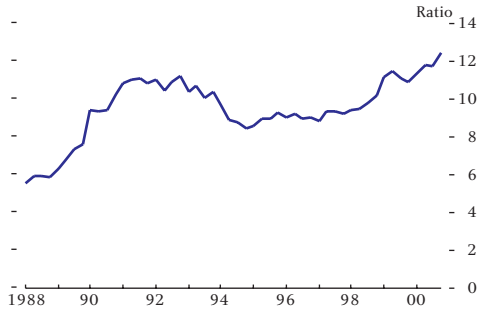
There are some indications, too, that leverage may have been increasing, while remaining well short of the excesses of 1997-98. Flows into hedge funds have recently been strong; and the number of funds has been rising quite rapidly. In part, this may reflect interest from a wider range of investors. Some international banks and insurance companies are guaranteeing the principal sum invested, which may involve complex hedging strategies. In general, so-called 'crowded trades', in which many leveraged intermediaries and investors are positioned 'the same way round', are said to be less common than a few years ago. One possible exception, discussed in Section VI, is convertible bond arbitrage.

The United Kingdom

The international developments noted above may affect the UK financial system both directly and, given London's role as a global financial centre, via the activities of internationally active financial firms. UK-owned banks' total overseas claims are roughly equal to their exposures to the UK non-bank private sector (Chart U). In principle, if the UK maintains a stable macroeconomic environment – with low inflation, and low variability in output and real interest rates – the household and corporate sectors should be able prudently to carry a somewhat higher level of debt relative to income than in the past. Looking forward, however, current imbalances in the economy could be a potential source of risk if they persist[2].

In aggregate, corporate sector debt remains high relative to trading profits (Chart P), and profit warnings have increased. Debt service ratios have risen in recent years, but remain much lower than in the late 1980s/early 1990s (Chart R). But the

Chart P:
UK PNFCs' debt-to-profits ratio[(a)(b)]

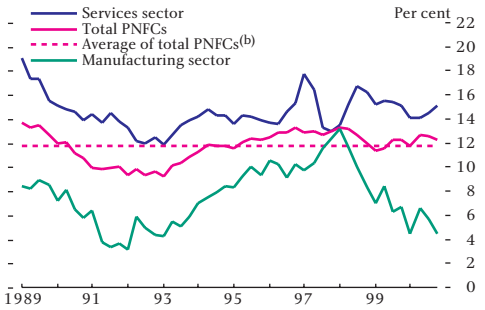


Sources: ONS and Bank calculations.

(a) Seasonally adjusted.

(b) Ratio of gross debt to operating profits.

Chart Q:
Net rate of return on capital of UK PNFCs[(a)]

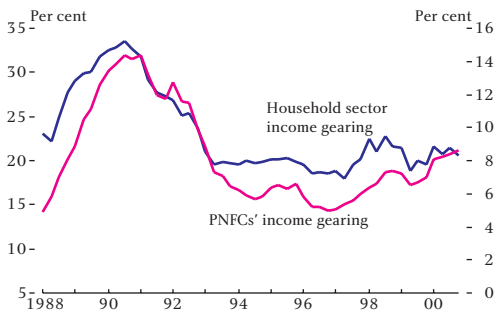


Sources: ONS and Bank of England.

(a) Net operating surplus, divided by net capital employed.

(b) Average is from 1989 Q1 to 2000 Q4.

Chart R:
UK PNFCs' and household sector income gearing[(a)(b)]



Sources: ONS and Bank of England.

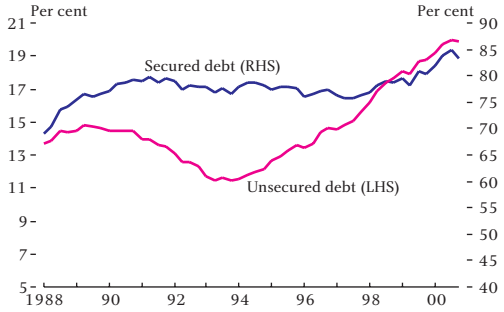
(a) Household income gearing is total household interest payments over total household disposable income. PNFC income gearing is interest payments over pre-tax profits.

(b) Data are quarterly averages.

1: *A survey of stress tests and current practice at major financial institutions*. April 2001. Committee on the Global Financial System of the central banks of the G10 countries. Available at www.bis.org.

2: See, for example, the minutes of the Monetary Policy Committee meetings on 9-10 May and 5-6 June.

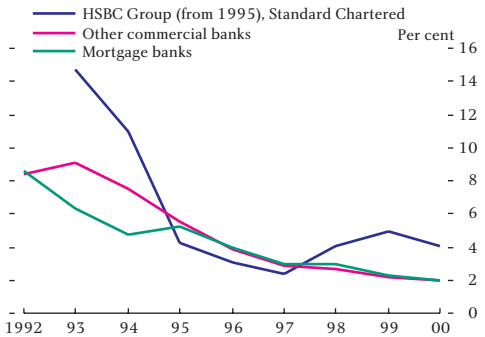
Chart S:
UK household sector secured and unsecured debt-to-income ratios[a]



Sources: ONS and Bank of England.

(a) Percentage of disposable income.

Chart T:
Major UK banks' non-performing loans[a][b]

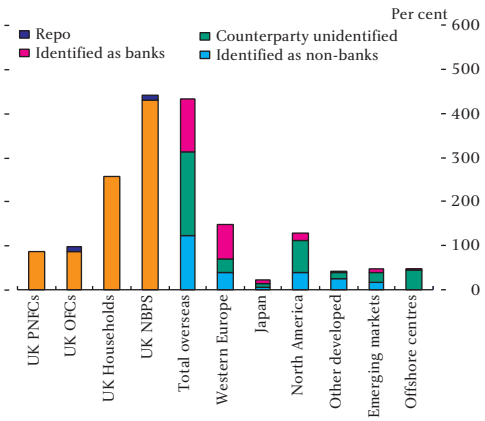


Sources: Bureau van Dijk Bankscope and published accounts.

(a) 'Non-performing': interest has been suspended or is no longer being accrued, 90 days overdue, provisions have been made, or being charged at a reduced rate. Expressed as a proportion of loans and advances.

(b) 'Other commercial banks' are RBS, NatWest, Barclays (from 1993), Bank of Scotland (from 1993), and Lloyds TSB (from 1994).

Chart U:
UK-owned banks' exposures as a proportion of capital[a]



Source: Bank of England.

(a) Data for end-December 2000. NBPS: non-bank private sector.

aggregate numbers disguise the underlying picture. The net rate of return on capital in the manufacturing sector has fallen further (Chart Q), to levels last seen at the bottom of the business cycle in 1991, reflecting pressure from sterling's strength and weakening global demand. But the services sector has been strong, against a background of final domestic demand and especially household spending having grown rapidly for some time.

By past standards, household sector debt is also high relative to income, although debt service ratios have been broadly stable since the mid-1990s (Charts R and S). In an environment where output and income growth are expected to slow and where domestic demand will itself eventually need to slow, the longer robust household spending persists – especially if accompanied by continuing high rates of borrowing – the greater the risk of a difficult adjustment. In particular, rising indebtedness might increase household sector vulnerability in the event of a downturn in asset prices (particularly house prices), a slowdown in the growth of disposable income, or an increase in interest rates (in the event, for example, of an unexpectedly rapid recovery in world growth or larger-than-expected decline in the value of sterling).

The UK banking system

Global and UK developments have not yet led to a deterioration in the asset quality of UK banks, at least not on the basis of backward-looking indicators. Non-performing loans generally fell last year (Chart T), as did the gross charges made by the major banks for bad and doubtful debts. Some significant provisions against south-east Asian exposures have been released. Looking forward, the picture is not quite so reassuring. The risk on some EME exposures – particularly Turkey, Argentina, Brazil and Indonesia – has probably increased since December, although EMEs account for a declining share of UK-owned banks' total overseas exposures (Chart U). Domestically, lending to the commercial property sector – which has given rise to problems for banks in the past – has been increasing rapidly in recent months. So has unsecured consumer credit (especially credit card lending), necessitating increased provisions at some banks. And there are risks stemming from the economic imbalances described above and in Section VII. On balance, though, the UK banking system as a whole appears to be well-placed to accommodate increased credit risk.

Overall, as in December, financial systems in the UK, the rest of Europe and the US appear generally to be robust. Published data in most countries paint a picture of banking systems both profitable and well capitalised. But the operating environment may now become more difficult than appeared likely six months ago, especially if the slowdown in world activity turns out to be longer or deeper than currently expected in markets.