

3 UK financial sector resilience: key points

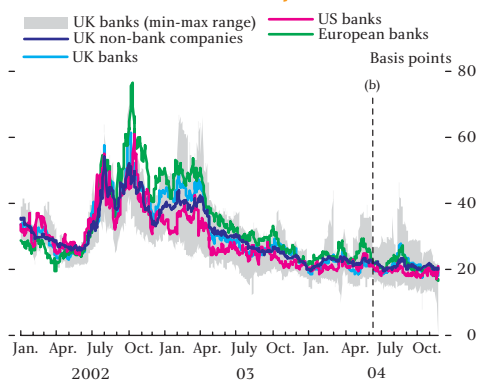
The UK financial system remains robust. The profitability and capitalisation of UK-owned banks has improved further since June, and their buffers of capital and high-quality liquid assets remain above the regulatory minima, strengthening the capacity of banks to manage the risks outlined in this *Review*. The operating environment for non-bank financial intermediaries, particularly for those in the life insurance sector, has also improved.

Some aspects of the operations of UK financial institutions, nevertheless, have implications for systemic stability should key market and credit risks crystallise. In particular:

- The growth of UK-owned banks' lending to households and firms continues to outpace the growth of funding from these sources. Although the ensuing 'customer funding gap' has stabilised following a steady increase between 1998 and 2003, it continues to be financed, in part, by short-term borrowing from foreign-owned banks in the interbank market. While UK-owned banks are developing alternative, longer-term, sources of funding, liquidity management could become more challenging should any individual bank come under financial pressure;
- A growing proportion of UK-owned banks' income is being derived from non-interest income. Although there are benefits from diversifying income sources, non-interest income could be more volatile than interest income and may be more susceptible to market risk;
- The trading and funding relationships between financial institutions, as well as the direct counterparty exposures of banks to each other, mean that shocks in one sector can rapidly spread across the financial system as a whole. These shocks can be amplified if there is a shared dependence on the liquidity of certain markets.
- Attempts to manage exposures linking financial institutions (for example, through off-balance-sheet exchange-traded derivative transactions) need to be pursued carefully to avoid excessive concentration of risks building up within particular parts of the financial system. Exposures between banks through the payment and settlement system also need similar management. Continued efforts to mitigate risks in the financial infrastructure important to UK wholesale financial markets – such as CREST, LCH.Clearnet Ltd and the Continuous Linked Settlement (CLS) system – are important in this regard.

3 UK financial sector resilience

Chart 3.1
Implied volatilities for large UK-owned banks and non-bank companies^(a)



Sources: Bloomberg, Thomson Financial Datastream and published accounts.

- (a) Data are available for nine large UK-owned banks, 39 other FTSE-100 companies, 22 continental European and 13 US banks.
 (b) June 2004 Review.

As discussed in Chapters 1 and 2, the past six months has been a relatively benign period for UK financial stability. Credit losses suffered by large UK-owned banks remain subdued: new provisions have fallen; mortgage arrears and write-off rates remain at or near historical lows; and the number of UK corporate insolvencies has fallen further. World economic growth has been very strong in 2004. And financial asset price volatility has been subdued.

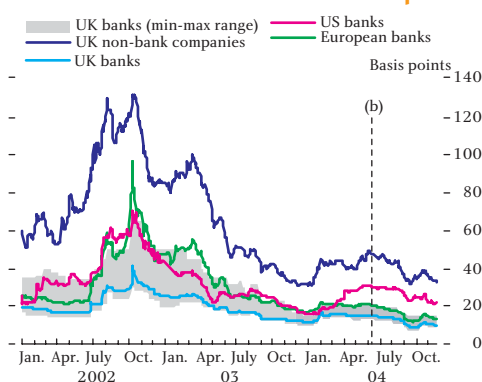
However vulnerabilities still remain: UK banks' credit card and commercial property lending growth have been particularly rapid; UK household indebtedness continues to increase relative to income; and there are still risks in the external environment. In international financial markets, some intermediaries and investors have continued their 'search for yield', leaving them vulnerable to credit events, sharper-than-expected interest rate rises and instability in the pattern of global capital flows.

3.1 The large UK-owned banking sector¹

Market assessment

Market indicators suggest that there are few concerns amongst market participants about the resilience of large UK-owned banks. The FTSE 350 Bank Index has risen by around 5% since the June 2004 Review, broadly in line with the FTSE 350 Index. The expected volatility of UK banks' share prices, as derived from option prices, has remained relatively low (Chart 3.1). And the implied probability of default of UK banks – inferred from a model based on the behaviour of bank equity prices – has fallen further since the June 2004 Review, touching its lowest level since April 1998.² That is consistent with more direct measures of the credit risk associated with UK banks. Credit default swap (CDS) premia for large UK-owned banks, for example, have fallen since the June 2004 Review, and remain low compared with those for US and European banks and UK non-bank companies (Chart 3.2). However, market indicators should be interpreted with caution. As discussed in Chapter 2, some of the recent

Chart 3.2
Credit default swap premia for large UK-owned banks and non-bank companies^(a)



Sources: Bloomberg, Credit Trade, JP Morgan Chase & Co, Mark-it Partners, Thomson Financial Datastream and published accounts.

- (a) Data are available for seven large UK-owned banks, 37 other FTSE-100 companies, 22 continental Europe and twelve US banks.
 (b) June 2004 Review.

(1) This analysis of the UK banking sector concentrates on the ten largest UK-owned banks, which together take 85% of deposits from UK-resident households and private non-financial companies. In November, Abbey National, the sixth largest UK-owned bank, was acquired by Banco Santander, the largest Spanish-owned bank. Abbey has been retained in the peer group of large UK-owned banks used in this Review, given that the acquisition occurred after the period of the latest financial results (2004 H1). The June 2005 Review will revisit the criteria used to select a peer group of banks for UK banking sector surveillance.

(2) This refers to a Merton-style model in which the underlying value of a bank's assets is assumed to follow a stochastic process estimated from the market value of the bank's equity price and other outstanding liabilities. For the purpose of the model, non-equity liabilities are assumed to comprise only customer deposits.

general reduction in spreads and implied volatilities may be due to lower risk premia, perhaps associated with investors' 'search for yield', as well as improvements in economic fundamentals.

Credit rating agencies' evaluations provide another indicator of the perceived strength of banking sectors; in principle, these should not be affected in the same way by changing risk premia. Financial Strength Ratings reflect an assessment of a bank's strength on a stand-alone basis.¹ These ratings remain high for large UK-owned banks, in line with those in the mid-1990s and with current ratings for most foreign-owned large complex financial institutions (LCFIs) (Chart 3.3).²

Profitability and capitalisation

The large UK-owned banking sector's profitability and capitalisation remains high by the standards of the past 15 to 20 years, as shown in Box 7. Reported profits and capital for the sector have also increased since the June 2004 *Review*.

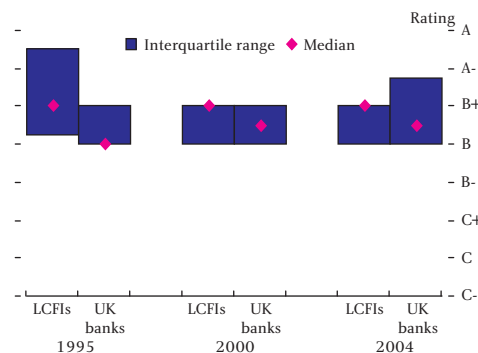
Profitability

The median return on equity of large UK-owned banks rose to 27.3% in 2004 H1, from 24.1% in 2003 (Chart B, in Box 7). The dispersion of profitability across the large UK-owned banking sector narrowed – the single large UK-owned bank that made losses in 2002 and 2003 returned to profit in 2004 H1.

Pre-tax profit margins for the sector rose in the first half of the year, because of reductions in both the aggregate cost-income ratio and new provisions (Chart 3.4): the former fell from 54.0% for the full year in 2003 to 51.4% in 2004 H1, and the latter fell to around 0.35% of total loans (Chart A, in Box 7). Indeed, profitability in 2004 H1 was either above or near the upper end of Consensus forecasts for the majority of the large UK-owned banks.

The increase in overall profit margins, however, masked a continued change in the composition of income (Chart 3.5). Net interest income grew by just 1.7% in the first half of 2004, compared with total income growth of 7%. Net interest margins have experienced a steady decline over the past 20 years (Chart 3.6), and fell further in the year to 2004 H1. The impact on net interest income was offset in 2004 H1 by rapid lending growth (see Chapter 1). A reduction in this lending growth would put downward pressure on UK banks' income.

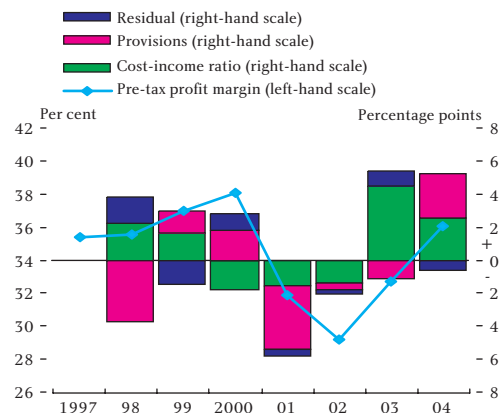
Chart 3.3
Moody's Financial Strength Ratings of large UK-owned banks and LCFIs^(a)



Sources: Bloomberg and Moody's Investors Service.

(a) Major banking subsidiaries of the LCFIs.

Chart 3.4
Contributions to changes in large UK-owned banks' aggregate pre-tax profit margin^{(a)(b)}

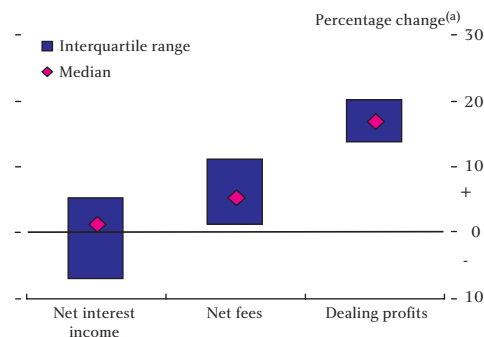


Sources: Published accounts and Bank calculations.

(a) See page 37 June 2004 *Review* for a breakdown of the pre-tax profit margin.

(b) Data for 2004 H1 results are annualised.

Chart 3.5
Changes in selected components of large UK-owned banks' income, 2004 H1



Sources: Published accounts and Bank calculations.

(a) Annualised percentage change from year-end 2003 to 2004 H1.

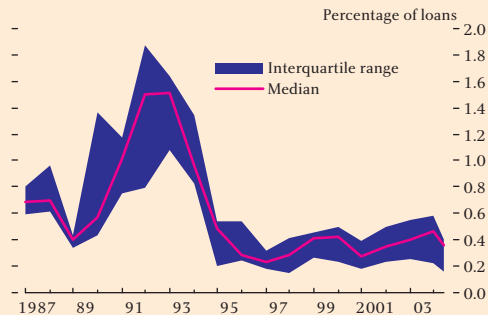
(1) Moody's Financial Strength Ratings were first introduced in 1995. They exclude consideration of government support to the rated bank, and hence reflect an assessment of strength on a stand-alone basis.

(2) The December 2001 *Review* (page 81) describes the criteria used to determine an LCFI peer group. The group is as follows: ABN Amro, Barclays, Bank of America, BNP Paribas, Citigroup, Credit Suisse, Deutsche Bank, Goldman Sachs, HSBC, JP Morgan Chase, Lehman Brothers, Merrill Lynch, Morgan Stanley, Société Générale, and UBS.

Box 7: A new peer group to analyse large UK-owned banks' resilience over time

Chart A

Large UK-owned banks' new provisions for bad and doubtful debts^(a)

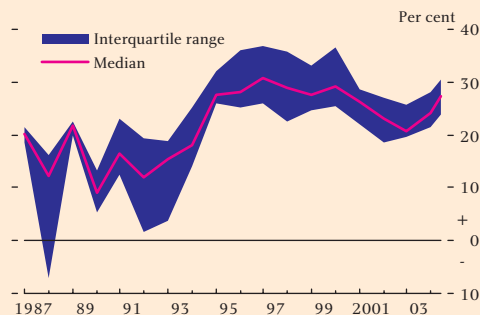


Sources: Thomson Financial Datastream, published accounts and Bank calculations.

(a) New provisions charge for bad and doubtful debts in the P&L account as a percentage of loans to customers (including finance leases) and banks.

Chart B

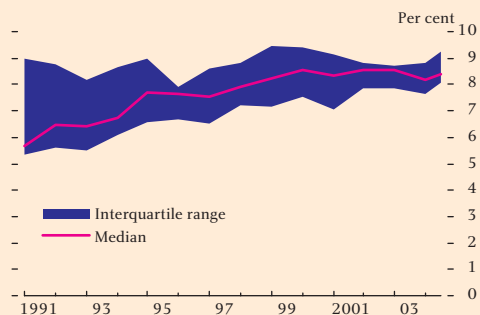
Large UK-owned banks' return on common equity



Sources: Thomson Financial Datastream, published accounts and Bank calculations.

Chart C

Large UK-owned banks' Tier 1 capital ratios



Sources: FSA regulatory returns and Bank calculations.

In recent *Reviews*, the analysis of the UK banking system has focused on the largest ten UK-owned banks by balance sheet size (measured at the most recent half-year end). The ten banks have on average since the beginning of 2001 held 98% of UK-owned banks' assets and 87% of all households' and companies' deposits. However, the choice of a static peer group based on the current structure of the banking system is not well suited to undertaking long-run comparisons (given changes in the composition of the group over time). Some of the ten largest banks at the end of 2004 H1 were converted building societies and had been involved in mergers and acquisitions.

This box introduces a new dynamic peer group designed to permit longer-term comparison of UK banks. It comprises the ten largest UK-owned banks at each year end. Annual re-selection has the advantage that the peer group reflects changes in the structure of the banking system and banks' organic growth. The peer group has been constructed between 1986 and 2004 H1 (with the start date reflecting Thomson Financial's coverage of banks' annual accounts information). The 19-year period includes a range of different economic developments, including the banks' recognition of losses made in the 1980s Less Developed Country (LDC) debt crisis,¹ the early 1990s recession and the more recent benign economic environment.

The peer group can be used to investigate the current resilience of large UK-owned banks in a longer-term context. The first major development evident in the dataset was several large UK-owned banks' recognition of losses made in the 1980s LDC debt crisis. This is reflected in the increase in the upper quartile of the new provisions ratio in 1987 and 1989 (Chart A). The recession of the early 1990s was felt more broadly, with the median and interquartile range of the new provisions ratio increasing to a peak in 1991–92. The subsequent recovery in economic activity saw a fall in new provisioning and increase in profitability. The large banks' return on equity has remained relatively high ever since, reflecting the favourable macroeconomic backdrop and the absence of other major shocks (Chart B). Since the UK banking regulator's implementation of the Basel Accord from end-1989, the large banks' Tier 1 ratios have increased steadily and in 2004 H1 stood well above the 4% minimum (Chart C).

(1) See Box 2 in Hoggarth, G and Pain, D (2002), 'Bank provisioning: the UK experience', in Bank of England *Financial Stability Review* for more details of large UK-owned banks' provisioning for the 1980s LDC debt crisis.

Growth in non-interest income, however, has remained strong, at around 15% in the first half of 2004. This could reflect a change in strategy in the light of falling interest margins, or a change in pricing structure – setting lower interest margins but imposing higher non-interest charges on customers. Net fees and commissions rose by 5% in the year to 2004 H1, while dealing income rose by 17%.

Capitalisation

The large UK-owned banks' published total and Tier 1 capital ratios rose marginally in 2004 H1, and remain well above regulatory minima. So-called 'prime Tier 1' capital – which excludes components of Tier 1 capital that carry debt-servicing obligations – is also reported to be high (Chart 3.7).¹

UK banks with life insurance subsidiaries (bancassurers) face a potential change in accounting rules that is likely to reduce the level of capital reported as Tier 1. Bancassurers are currently permitted to recognise an estimate of future profits from their life insurance businesses as an asset for accounting purposes. In July, the UK Accounting Standards Board published Financial Reporting Exposure Draft (FRED) 34, which proposes to restrict this practice.²

Funding and liquidity

The characteristics of a bank's funding and other liabilities influence its potential vulnerability to liquidity risk. To remain robust, banks require a sufficient stock of liquid assets to meet calls on liquidity as they arise.

Funding

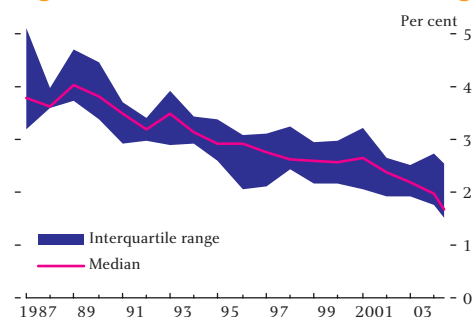
As noted in recent *Reviews*, the growth of most large UK-owned banks' lending to households and non-financial companies (or 'customers') outpaced the growth of funding from these sources between 2001 and 2003.³ The resulting 'customer funding gap' has been filled by issuing debt securities and borrowing in the interbank market (Chart 3.8). A sizeable proportion of the large UK-owned banking sector's net borrowing in the interbank market is obtained from foreign-owned banks. In times of market-wide stress, such short-term wholesale liabilities could prove more vulnerable to sudden withdrawal, and therefore pose greater liquidity risks.

(1) Previous *Reviews* have argued that some forms of capital are likely to be more effective than others in helping banks absorb losses should they arise. Some forms of capital, such as subordinated debt, protect depositors but, from the perspective of system robustness, carry debt-servicing obligations that could prove difficult to defer in times of stress. Other types of capital, such as shareholders' equity, provide the flexibility for banks to hold back payments to capital holders and instead use the funds as a buffer.

(2) If enacted, it is unclear whether FRED 34 would be applied first for the accounting period ending December 2004 or later.

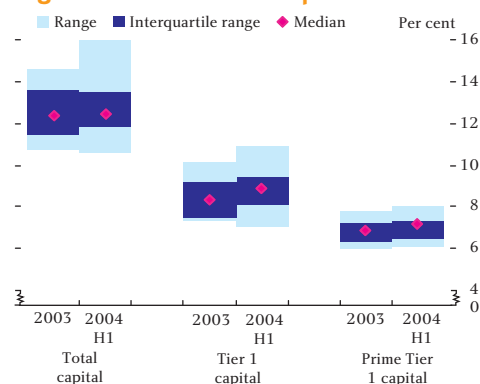
(3) Parkinson, S and Speight, G (2003), 'Large UK-owned banks' funding patterns: recent changes and implications', Bank of England *Financial Stability Review*, December.

Chart 3.6
Large UK-owned banks' net interest margin



Sources: Thomson Financial Datastream, published accounts and Bank calculations.

Chart 3.7
Large UK-owned banks' capital ratios^{(a)(b)}

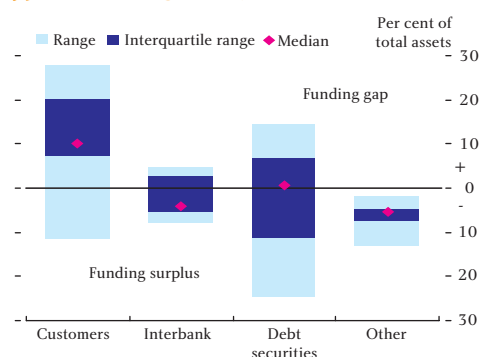


Sources: Published accounts, FSA regulatory returns and Bank calculations.

(a) Percentage of risk weighted assets.

(b) Prime Tier 1 includes ordinary shares, associated reserves and retained earnings.

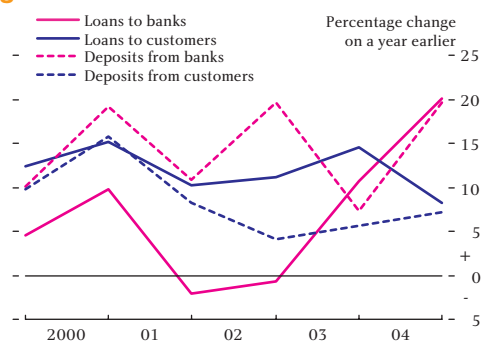
Chart 3.8
Large UK-owned banks' funding gaps, by type of funding, 2004 H1^(a)



Sources: Published accounts and Bank calculations.

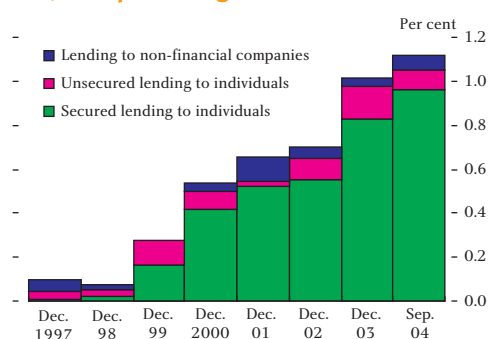
(a) Measured as assets less liabilities in the balance sheet categories shown, as a percentage of total assets.

Chart 3.9
Large UK-owned banks' asset and funding growth



Sources: Published accounts and Bank calculations.

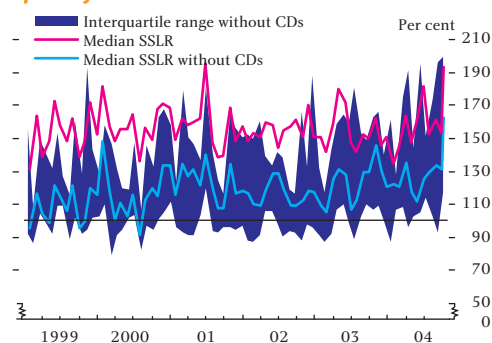
Chart 3.10
Annual net flows of loan transfers and securitisations by nature of underlying loan, as a percentage of total assets^(a)



Source: Bank of England.

(a) 2004 data annualised on the basis of previous four quarters.

Chart 3.11
Large UK-owned banks' sterling stock liquidity ratios



Source: FSA regulatory returns.

Over the past year, however, the growth rates of deposits from customers and of customer lending have converged (Chart 3.9). The customer funding gap was therefore broadly unchanged in 2004 H1. Nevertheless, the existing gap still requires funding. Some UK-owned banks have continued to develop alternative, long-term, funding sources. Since the June 2004 *Review*, there has been further UK covered bond issuance, bringing the total issuance to €14.25 billion (£9.8 billion) since the first UK covered bond issue in July 2003.¹ Net flows of securitisations remain a small proportion of the sector's overall funding, only representing around 1.1% of total assets in the year to September (Chart 3.10).²

Liquidity

Banks hold a buffer of high-quality liquid assets to remain robust against the liquidity risk inherent in their funding sources and other liabilities. In the UK, the regulatory minimum for liquid assets is determined by the sterling stock liquidity ratio (SSLR). Since the June 2004 *Review*, SSLRs have remained above the regulatory minimum of 100%. Excluding holdings of other banks' certificates of deposit (CDs) – which, as 'inside' rather than 'outside' assets, may not help the banking system as a whole in the event of a system-wide liquidity shock – the median SSLR has also remained above 100% (Chart 3.11).

The SSLR is based on sterling outflows. An alternative indicator is the ratio of liquid assets to those liabilities (in whatever currency) that might be classified as vulnerable to sudden withdrawal, as derived from data in published accounts. According to this indicator, most large UK-owned banks hold roughly the same level of 'liquid assets' as their stock of 'vulnerable liabilities', although the ratio has fallen in recent years (Chart 3.12). This measure encompasses assets and liabilities in all currencies, but it has other limitations. It is dependent on the exact definition of 'liquid assets' and 'vulnerable liabilities' used, and is not based on empirical estimates of potential outflows.

(1) As discussed in the June 2004 *Review*, the recent development of covered bond issuance represents an extension of the UK mortgage-backed securities market. UK covered bonds are structured in a broadly similar way to the well-established German *pfandbriefe* market: long-term securities (with 5-to 15-year maturities), backed by pools of mortgages, issued in euro (with foreign exchange risk to the bank hedged as a matter of course), and offered to European investors.

(2) In September 2004, the FSA sent a letter to the British Bankers' Association outlining depositor protection issues that arise from covered bond issuance, highlighting that the regulatory treatment of covered bonds was under review. These securities could weaken the position of depositors in an insolvency, as covered bond holders have a preferential claim to the assets pledged to the covered bond pool.

3.2 UK non-bank financial sectors

An accompanying article in this *Review* introduces a framework to assess the channels through which different non-bank financial sectors might be important for systemic financial stability – both through their direct role, as providers of financial services, and via links with other financial institutions. Considering only UK-resident activities, the article concludes that a number of non-bank financial sectors are potentially important for financial stability, including securities dealers, non-life insurers, life insurers, pension funds, and ‘other finance providers’.¹

Although UK-resident, some of the non-bank financial intermediaries described above – such as securities dealers and non-life insurers – are largely foreign-owned. Global market price indices are one indicator of the perceived robustness of these intermediaries. Since the June 2004 *Review*, equity prices of global non-bank financial sectors have risen (Chart 3.13). CDS premia also remain low for most global non-bank financial firms, suggesting their perceived resilience to shocks remains strong. The risks to these global intermediaries are discussed in Chapter 2.

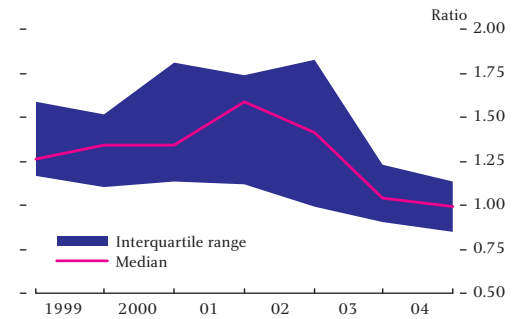
In autumn 2002 and spring 2003, UK life insurers were adversely affected by sharp declines in UK equity prices, in some cases prompting capital injections by their owners. But this year, the operating environment of UK life insurers has improved. Aggregate profits of the five largest UK-owned life insurers increased by 26% in the year to 2004 H1. The Association of British Insurers (ABI) also reports a 5.5% annual increase in new sales of products in 2004 Q3, although sales still remain 10% below 2002 peaks (Chart 3.14).

‘Other finance providers’ – such as mortgage credit companies, factoring companies, credit grantors and leasing corporations – play a material role in lending to UK households. The majority of secured lending by these finance providers is undertaken by companies that are subsidiaries of UK banking groups. As such, the strength of this sector is captured, in part, in large UK-owned banks’ consolidated group accounts, discussed above.

3.3 Links between financial institutions

Aggregate indicators of the strength of the financial sector are insufficient by themselves to provide a full assessment of the ability of the sector to withstand adverse shocks. Links between financial institutions create the potential for shocks that hit individual intermediaries, or particular parts of the financial

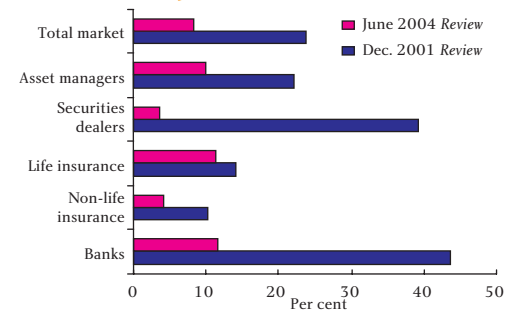
Chart 3.12
Large UK-owned banks’ ‘liquid assets’ as a ratio of ‘vulnerable liabilities’^{(a)(b)}



Sources: Published accounts and Bank calculations.

- (a) ‘Liquid assets’ are defined as debt securities, treasury bills, items in the course of collection from other banks and cash.
- (b) ‘Vulnerable liabilities’ are defined as items in the course of collection, an estimation of debt securities issued with a maturity of under three months, and interbank deposits.

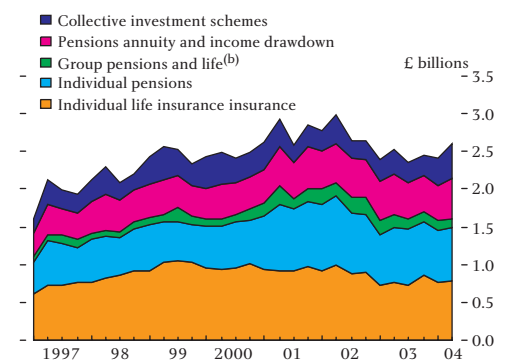
Chart 3.13
Percentage change in global equity price indices^(a) since previous *Reviews*



Sources: Thomson Financial Datastream and Bank calculations.

- (a) Denominated in US dollars.

Chart 3.14
Life insurers’ UK sales of long-term savings products^(a)



Source: Association of British Insurers.

- (a) Annual premium equivalent basis (ie regular premiums plus a tenth of single premiums).
- (b) Refers to the sale of policies to groups of people, such as the employees of a company.

(1) Corder, M (2004), ‘Assessing risks from UK non-bank financial sectors’, Bank of England *Financial Stability Review*, December.

sector, to be transmitted quickly to the financial sector as a whole.¹ The nature of these links matters.

Funding and trading exposures

Financial institutions are linked through a number of channels, including funding activities in interbank markets and trading relationships in financial markets.

Financial market liquidity and concentration

Large UK-owned banks and other financial institutions – such as LCFIs, securities dealers and hedge funds – are active in a number of financial markets, and so are exposed to market risk, as discussed in Chapter 2. Although measures of large UK-owned banks' value at risk (VaR) relative to income are low compared with US and European LCFIs, VaR calculations usually assume that markets do not become illiquid or disorderly. Hence they do not reflect links via banks' shared dependence on the liquidity of markets. Some of these markets are highly concentrated, with a relatively small number of intermediaries, each with a large market share.

On-balance-sheet counterparty exposures

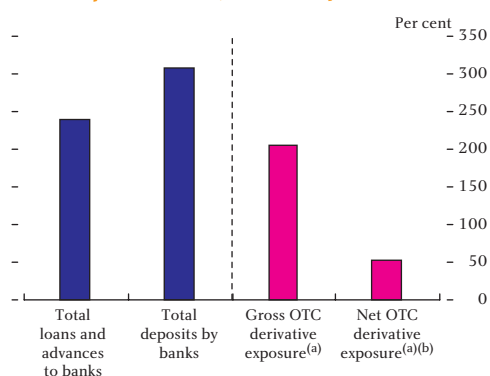
Counterparty links within the banking sector are particularly important given the high degree of interconnection in wholesale banking markets. As a result, even though the large UK-owned banking sector is a net borrower in the interbank market (as discussed earlier), gross unsecured interbank loans and advances are a large category of interbank exposure, amounting to more than two and a half times Tier 1 capital (Chart 3.15). By contrast, on-balance-sheet exposures to non-bank financial sectors are less material. The largest on-balance-sheet exposure is via secured lending to securities dealers, which are predominantly US-owned (Chart 3.16).

Off-balance-sheet counterparty exposures

Counterparty links also occur through off-balance-sheet activities, including both over-the-counter (OTC) and exchange-traded derivatives. According to the recently published Bank for International Settlements (BIS) Triennial Survey, the volume of global OTC currency and interest rate derivatives turnover has more than doubled in the past three years. The resultant risks are primarily managed through netting and collateral agreements. As a result, large UK-owned banks' net exposures via OTC derivatives remain small compared with exposures through gross unsecured interbank loans (which by contrast are not netted against interbank deposits) (Chart 3.15).

Exchange-traded derivatives provide another avenue for banks to reduce counterparty exposures to each other. London Clearing

Chart 3.15
Large UK-owned banks' interbank exposures to UK-resident banks relative to Tier 1 capital, as at June 2004

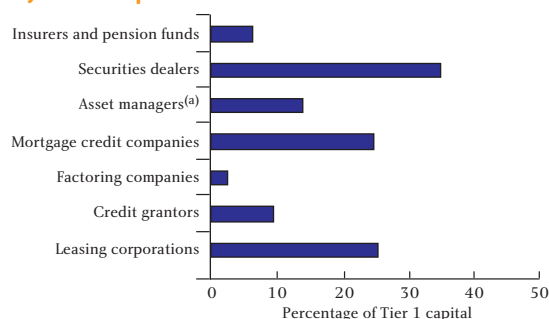


Source: Published accounts.

(a) End-2003.

(b) Net OTC derivative exposures are trading positions net of margining and collateral held.

Chart 3.16
Large UK-owned banks' stock of lending to UK-resident non-bank financial sectors, as at June 2004



Sources: Bank of England and published accounts.

(a) Asset managers comprise investment and unit trusts, money market mutual funds and fund management activities.

(1) For example, see Wells, S (2002), 'UK interbank exposures: systemic risk implications', Bank of England *Financial Stability Review*, December.

House (LCH), for example, plays an integral role in clearing securities and derivative transactions, as illustrated by the initial margin deposited with LCH by its members (Chart 3.17). The central counterparty must itself meet high standards of risk management.¹

Payment and settlement exposures

Large UK-owned banks participate in payment and settlement systems both in the United Kingdom and overseas. The two largest UK payment systems by value, CREST for sterling securities settlement and CHAPS sterling for cash settlement, are real-time gross settlement systems, which do not give rise to credit exposures between settlement banks (Chart 3.18).

However, exposures of settlement banks to non-members, arising while those customers' payment instructions are being processed, still need to be managed.²

The Continuous Linked Settlement (CLS) system, which was launched in September 2002, helps reduce foreign exchange settlement risk between system users by settling their transactions on a payment-versus-payment basis. With a few exceptions due to seasonal declines in market activity, values of foreign exchange transactions settled in CLS have continued to increase (Chart 3.19), but a significant amount is still settled outside CLS.³ The Hong Kong dollar, Korean won, New Zealand dollar and South African rand are due to be included in the CLS system by early 2005, increasing the number of settled currencies to 15.

In October 2003, CREST broadened the range of securities that it settles to include money market instruments. Since then, there has been rapid growth in the value of US dollar settlement in CREST. The resulting US dollar obligations between settlement banks are not settled in real time over the Bank of England's accounts. Settlement instead takes place over accounts in the United States, with exposures between pairs of settlement banks persisting until those bilateral payments have been made. The settlement banks and CREST, with the support of the Bank of England, are exploring ways of reducing the credit risk that this process entails.

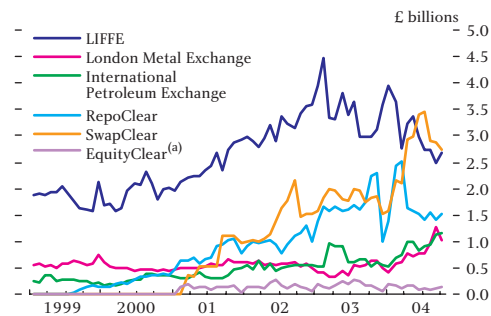
As well as minimising settlement exposures between banks, well designed payment and settlement systems can reduce the threat of system-wide disruptions. Measures to strengthen these key elements of the financial infrastructure are among the issues covered in the following article in this *Review*.

(1) In November, the Committee on Payment and Settlement Systems (CPSS) and the Technical Committee of the International Organisation of Securities Commissions (IOSCO) published a set of risk-management Recommendations for Central Counterparties. See the article on *Strengthening financial infrastructure* in this *Review*.

(2) See *Strengthening financial infrastructure* in this *Review*.

(3) Sawyer, D (2004), 'CLS and foreign exchange settlement risk', Bank of England *Financial Stability Review*, December.

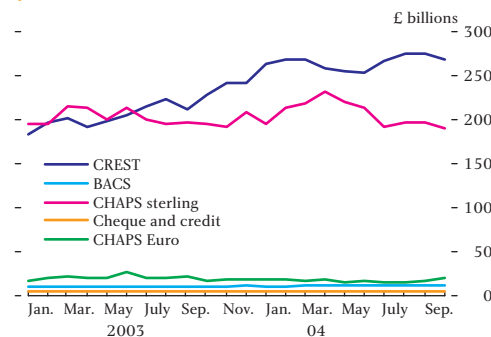
Chart 3.17
Initial margin required by LCH for its largest cleared markets at end-month



Source: LCH.Clearnet Limited.

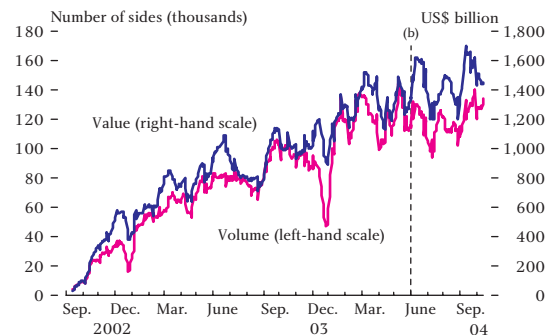
(a) Since 5 May 2003, Equity Clear initial margin includes margin held against trades on the virt-x exchange, as well as against trades on the London Stock Exchange.

Chart 3.18
Monthly daily average domestic payments by value



Sources: APACS and CREST.

Chart 3.19
Daily volumes and values settled in CLS (ten-day moving average)^(a)



Source: CLS Bank International.

(a) Volume figures report the number of sides before splitting (the process of breaking down into smaller parts transactions of high value in order to improve settlement efficiency).

(b) June 2004 *Review*.