

## Box 3

**EVIDENCE OF THE IMPACT OF RECENT FINANCIAL MARKET TENSIONS, AS REVEALED BY BANK LENDING SURVEYS IN MAJOR INDUSTRIALISED ECONOMIES**

The euro area bank lending survey for October has shown that banks reacted to the tensions in financial markets in the third quarter by tightening their credit standards, both for enterprises and, to a lesser extent, for households. In this context, it is of interest to investigate whether banks in other major economic areas have responded to the financial market tensions in similar ways. The analysis in this box is based on evidence from the bank lending surveys in a number of major industrialised economies, namely the United States, Japan, the United Kingdom and the euro area.<sup>1</sup> The box provides results for mainly loans to enterprises, which were affected, on average across the countries involved, more markedly than loans to households.

<sup>1</sup> The quarterly US Senior Loan Officer Opinion Survey on Bank Lending Practices (the “US survey”) is based on a sample of 50-60 large domestic banks and a separate sample of 20 branches and agencies of foreign banks located in the United States. The quarterly Japan Senior Loan Officer Survey (the “Japanese survey”) covers about 50 major Japanese banks. The quarterly UK Credit Conditions Survey (the “UK survey”), which was introduced by the Bank of England in 2007, covers about 30 banks, the largest lenders in the secured, unsecured and corporate lending market segments. The quarterly bank lending survey for the euro area (the “euro area survey”) covers around 90 banks in all euro area countries. The national results are weighted by the volumes of loans to households and enterprises for aggregation at the euro area level.

### Some key facts on the design of the surveys

All four surveys are conducted quarterly and report information, based on the answers from participating banks, on the changes recorded in the past three months and expected over the next three months in credit standards for the approval of loans, in the underlying terms and conditions and in the demand for loans. In addition, all surveys ask the banks for an indication of possible factors explaining such developments. In this respect, the surveys are quite similar to each other. Viewed in depth, however, there are some relevant differences between the surveys, which need to be borne in mind when comparing the results. First, with respect to enterprises, the banks' answers are partly published for all enterprises and partly split into large, medium-sized and small firms,<sup>2</sup> with size categories differing across the surveys. In addition, the compilation methods differ somewhat. While the US and euro area surveys publish net percentages, which are defined as the simple difference between the sum of the percentages for tightening and the sum of the percentages for easing, the Bank of England publishes net percentage balances, for which responses are weighted by the intensity of the response (i.e. major changes are weighted twice as high as minor changes) and by the market share of the reporting lenders. Like the Bank of England, the Bank of Japan also publishes weighted results (diffusion index).

Moreover, when comparing the survey results for the third quarter of 2007, the fact must be taken into account that the surveys were conducted at different times. The US survey of October 2007 and the corresponding Japanese survey were both conducted around mid-October, whereas the UK survey for the third quarter of 2007 was already conducted between 20 August and 13 September and the euro area survey for the third quarter of 2007<sup>3</sup> was conducted in the second half of September.

### Changes in bank credit standards in the third quarter of 2007

For the third quarter of 2007, the surveys for the United States, the United Kingdom and the euro area report a considerable net tightening of credit standards for the approval of loans to enterprises (see Chart A). In all three economic areas, large enterprises were affected more by the net tightening than small enterprises. At the same time, however, the net percentage of banks reporting tighter credit standards in the United States and in the euro area remained below the peaks of 2001 and 2003 respectively.<sup>4</sup> In the euro area, credit standards for loans to households were tightened significantly less than those for enterprises, while they were kept broadly unchanged in net terms in the United Kingdom (see Chart B).<sup>5</sup> In the United States, by contrast, credit standards for residential mortgage loans were tightened sharply in the third quarter of 2007, to the highest net percentage level recorded since the start of the survey in 1990. In contrast to the other three surveys, Japanese banks reported a continued net easing of credit standards for loans to both firms of all sizes and households in the third quarter of 2007, and expected this easing to continue in the fourth quarter.

2 The US survey, for instance, reports the split into "large and medium firms" and "small firms", but not the results for all enterprises.

3 For a detailed description of the results of the euro area bank lending survey for the third quarter of 2007, see Box 2 in the October 2007 issue of the Monthly Bulletin.

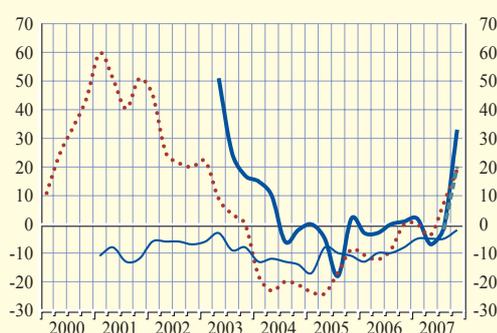
4 For the United Kingdom, there are no historical data for these periods.

5 It has to be recalled that the UK survey was conducted prior to the insolvency of Northern Rock, a UK mortgage lender.

**Chart A Changes in credit standards for loans to large enterprises**

(over the past three months; net percentages of banks contributing to tightening standards)

— euro area  
 ..... United States (large and medium-sized firms)  
 - - - - United Kingdom (large and medium-sized firms)  
 — Japan



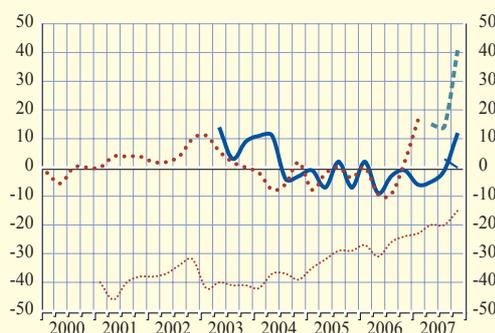
Sources: ECB, Federal Reserve System, Bank of Japan and Bank of England.

Note: For the United Kingdom, data only start in the second quarter of 2007. The net percentage balances on corporate credit availability in the United Kingdom have been inverted. Inverted diffusion index for Japan.

**Chart B Changes in credit standards for residential mortgage loans**

(over the past three months; net percentages of banks contributing to tightening standards)

— euro area (loans for house purchase)  
 ..... United States (all residential mortgage loans)  
 - - - - United States (prime residential mortgage loans)  
 — United Kingdom (secured credit to households)  
 ..... Japan (all loans to households)



Sources: ECB, Federal Reserve System, Bank of Japan and Bank of England.

Note: For the United Kingdom, data only start in the second quarter of 2007. The net percentage balances on secured credit availability to households in the United Kingdom have been inverted. For the United States, the series for all residential mortgage loans has been discontinued on account of a split into the prime, non-traditional and sub-prime market segments as from the April 2007 survey. Inverted diffusion index for Japan.

### Factors affecting the availability of bank loans to enterprises in the third quarter of 2007

With respect to the reasons for the net decline in the availability of loans to enterprises, a number of factors were common to banks in the United States, the United Kingdom and the euro area, although their importance differed somewhat. First, banks reported that their expectations with respect to the economic outlook had contributed significantly to the net tightening of credit standards in the third quarter, especially in the United States and the euro area. In the United Kingdom, the changing economic outlook – in the view of reporting banks – contributed only modestly to the net decline in credit availability, but is expected to play a significantly greater role in the fourth quarter. In addition, banks in both the euro area and the United Kingdom reported that their cost of funds had contributed considerably to the net tightening of credit standards for enterprises in the third quarter. By contrast, US banks did not, on average, regard their current or expected capital, or their liquidity positions, to be an important factor behind the tightening of credit standards. Moreover, in all three economic areas, banks' access to market financing and a reduced tolerance of risk were mentioned as important reasons for the tightening of credit standards. In contrast to the results of the other three surveys, the Japanese survey cited the economic outlook as an important factor behind the net easing of credit standards.

The UK and euro area surveys for the third quarter of 2007 – and, to some extent, the US survey as well – reported specifically on two areas that were particularly affected by the tensions in financial markets, namely on the changes in securitisation and on the impact on bank lending of banks' liquidity commitments to structured investment vehicles (SIVs) or conduits. With

respect to securitisation, banks reported that the financial market tensions in the third quarter had made it difficult, in the context of true-sale securitisation, for them to offload loans from their balance sheet or, in the context of synthetic securitisation, to sell the credit risk of the loans. In the United States, banks reported a considerably lower share of securitised mortgage loans in the third quarter. Similarly, UK banks reported that they expected a marked decline in the use of both true-sale and synthetic securitisation in the fourth quarter of 2007. When asked about the reduced ability to offload loans or credit risk from their balance sheets, UK banks reported a strong negative effect on their capacity to extend new credit to the corporate sector, and on the underlying terms and conditions, since July 2007. A considerable negative impact on the capacity for, and the terms of, new secured lending to households is also expected by banks for the fourth quarter. As regards the euro area survey, based on the ad hoc questions for the third quarter, more than 70% of the reporting euro area banks stated that their access to securitisation had already been hampered in the third quarter and that it was expected to be hampered also in the fourth quarter of 2007.

As regards the impact of banks' liquidity commitments to SIVs or conduits on bank lending, the US and UK surveys provide specific information. In the United States, when questioned about changes in their standards and terms for providing backup lines of credit for commercial paper programmes, banks reported a considerable net tightening in this respect in the third quarter. Similarly, in the United Kingdom, when asked about the impact of possible liquidity commitments to asset-backed commercial paper programmes or SIVs, banks reported a strong negative effect on the capacity for, and underlying terms of, extending new credit to the corporate sector since July 2007.

#### **Changes in the terms and conditions for loans to enterprises in the third quarter of 2007**

According to reporting banks, the tensions in financial markets have affected both price and non-price terms and conditions for loans to enterprises in the United States, the United Kingdom and the euro area in the third quarter. This reflected an increased risk aversion of banks against the background of higher uncertainty and possibly higher credit and liquidity risks. By contrast, the terms and conditions for bank loans to enterprises in Japan continued to evolve favourably.

Starting with price terms and conditions, a significant net percentage of banks in the United States reported a marked increase, especially for large and medium firms, in the spreads of loan rates over their cost of funds and in the premiums charged on riskier loans (see Chart C). For the United Kingdom, banks reported a considerable net increase in the spreads on loans in the third quarter, more for large than for medium-sized private non-financial corporations, and they expect a further increase in the fourth quarter. Euro area banks likewise tightened their margins significantly, both on average and in respect of riskier loans, in the third quarter. Where Japanese banks are concerned, an increase in the spreads of loan rates over the banks' cost of funds for lower-rated firms in the third quarter might point to a certain increase in risk aversion.

Non-price terms and conditions were generally tightened somewhat less than price terms and conditions in the United States, the United Kingdom and the euro area. In the United States, in particular loan covenants in the third quarter were tightened considerably in comparison with the previous quarter. For the United Kingdom, most non-price terms and conditions, such as collateral requirements, maximum credit lines or loan covenants, still contributed positively or

**Chart C Changes in price terms on loans to enterprises**

(over the past three months; net percentages of banks contributing to tightening standards)

- euro area (margin on average loans; all firms)
- ..... United States (spreads of loan rates over cost of funds; large firms)
- - - United Kingdom (spreads on loans; large and medium-sized firms)
- Japan (spreads of loan rates over cost of funds; large firms)



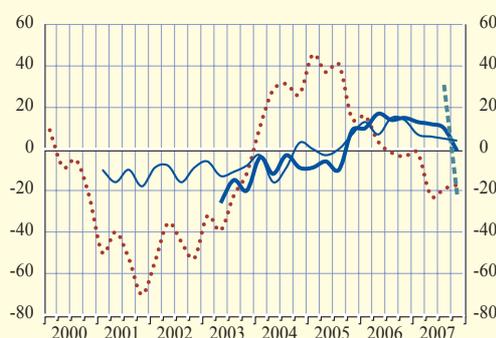
Sources: ECB, Federal Reserve System, Bank of Japan and Bank of England.

Note: For the United Kingdom, data only start in the second quarter of 2007. The net percentage balances on spreads on loans to large private non-financial corporations in the United Kingdom have been inverted. Inverted diffusion index for Japan.

**Chart D Changes in demand for loans to large enterprises**

(over the past three months; net percentages of banks reporting a positive contribution to demand)

- euro area
- ..... United States (large and medium-sized firms)
- - - United Kingdom
- Japan



Sources: ECB, Federal Reserve System, Bank of Japan and Bank of England.

Note: For the United Kingdom, data only start in the second quarter of 2007. Net percentage balances for large private non-financial corporations in the United Kingdom. Diffusion index for large firms in all industries for Japan.

neutrally to the availability of credit to private non-financial corporations in the third quarter. However, banks expect a sharp deterioration in non-price terms and conditions in the fourth quarter. With respect to the euro area, banks reported a broad-based net tightening of their non-price terms and conditions, such as collateral requirements, the size of credit lines, loan covenants and non-interest charges, for loans to enterprises in the third quarter, after a net easing in the second quarter. Japanese banks, by contrast, generally continued to ease their non-price terms and conditions for loans to firms in net terms in the third quarter of 2007.

### Demand for loans in the third quarter of 2007

With respect to the demand for loans by large enterprises and households in the third quarter of 2007, banks in the United States, the United Kingdom and the euro area reported a decline in net loan demand by large and medium-sized enterprises, and partly by households, whereas Japanese banks reported an unchanged or increased net demand for loans by firms and households (see Chart D).

In the United States, banks reported that the net demand for loans by enterprises continued to weaken in the third quarter, albeit somewhat less than in the second quarter. According to the reporting banks, this was due mainly to decreasing financing needs both for fixed investment and for mergers and acquisitions (M&As). In the United Kingdom, banks mentioned a drop in the demand for loans by private non-financial corporations, which had still increased in the second quarter. The main factors cited by the reporting banks as contributing to the decline in the third quarter and to an expected further decline in the fourth quarter were balance sheet

restructuring and commercial real estate, as well as – for the fourth quarter only – M&As. As did US and UK banks, euro area banks likewise reported a decline, mainly related to lower M&A activity, in net demand for loans by large enterprises. In the Japanese survey, the reporting banks stated that higher sales and investment had contributed strongly both to firms' demand for loans and to households' demand for housing loans. By contrast, customers' funding from other sources did not become more difficult according to reporting banks and, hence, did not contribute to the rise in the demand for loans by firms.

### **Conclusions**

The international comparison of the bank lending survey results for the third quarter of 2007 has shown that bank lending conditions in the United States, the United Kingdom and the euro area seem to have been affected significantly by the financial market tensions and the reappraisal of risks. It should be noted, however, that the net tightening of the credit standards applied to enterprises in the United States and in the euro area remains less severe for all firm sizes than in 2001 and 2003 respectively, and that lending to households has thus far been generally affected to a lesser degree in the euro area and the United Kingdom, although this does not hold true for the United States. In particular in the United States, credit standards for residential mortgages were tightened sharply in the third quarter, reaching their highest level since the start of the survey in 1990. By contrast, bank lending conditions in Japan seem to have been hardly affected by the turmoil.