

Berg, Jesper; Ferrando, Annalisa; de Bondt, Gabe; Scopel, Silvia

Research Report

The bank lending survey for the euro area

ECB Occasional Paper, No. 23

Provided in Cooperation with:

European Central Bank (ECB)

Suggested Citation: Berg, Jesper; Ferrando, Annalisa; de Bondt, Gabe; Scopel, Silvia (2005) : The bank lending survey for the euro area, ECB Occasional Paper, No. 23, European Central Bank (ECB), Frankfurt a. M.

This Version is available at:

<https://hdl.handle.net/10419/154476>

Standard-Nutzungsbedingungen:

Die Dokumente auf EconStor dürfen zu eigenen wissenschaftlichen Zwecken und zum Privatgebrauch gespeichert und kopiert werden.

Sie dürfen die Dokumente nicht für öffentliche oder kommerzielle Zwecke vervielfältigen, öffentlich ausstellen, öffentlich zugänglich machen, vertreiben oder anderweitig nutzen.

Sofern die Verfasser die Dokumente unter Open-Content-Lizenzen (insbesondere CC-Lizenzen) zur Verfügung gestellt haben sollten, gelten abweichend von diesen Nutzungsbedingungen die in der dort genannten Lizenz gewährten Nutzungsrechte.

Terms of use:

Documents in EconStor may be saved and copied for your personal and scholarly purposes.

You are not to copy documents for public or commercial purposes, to exhibit the documents publicly, to make them publicly available on the internet, or to distribute or otherwise use the documents in public.

If the documents have been made available under an Open Content Licence (especially Creative Commons Licences), you may exercise further usage rights as specified in the indicated licence.



EUROPEAN CENTRAL BANK

OCCASIONAL PAPER SERIES

NO. 23 / FEBRUARY 2005

**THE BANK LENDING
SURVEY FOR THE
EURO AREA**

by Jesper Berg
Adrian van Rixtel
Annalisa Ferrando
Gabe de Bondt
and Silvia Scopel



EUROPEAN CENTRAL BANK



OCCASIONAL PAPER SERIES

NO. 23 / FEBRUARY 2005

THE BANK LENDING SURVEY FOR THE EURO AREA*

by Jesper Berg¹
Adrian van Rixtel²
Annalisa Ferrando²
Gabe de Bondt²
and Silvia Scopel²

In 2005 all ECB publications will feature a motif taken from the €50 banknote.

This paper can be downloaded from the ECB's website (<http://www.ecb.int>).

* The authors would like to thank Francesco Drudi, Hans-Joachim Klöckers and Philippe Moutot for providing useful comments at various stages of the project as well as an anonymous referee for helpful suggestions. The views expressed in this paper are those of the authors and do not necessarily reflect those of the European Central Bank or the Danmarks Nationalbank.

¹ Danmarks Nationalbank.

² European Central Bank.

© European Central Bank, 2005

Address

Kaiserstrasse 29
60311 Frankfurt am Main
Germany

Postal address

Postfach 16 03 19
60066 Frankfurt am Main
Germany

Telephone

+49 69 1344 0

Website

<http://www.ecb.int>

Fax

+49 69 1344 6000

Telex

411 144 ecb d

All rights reserved. Reproduction for educational and non-commercial purposes is permitted provided that the source is acknowledged.

The views expressed in this paper do not necessarily reflect those of the European Central Bank.

ISSN 1607-1484 (print)
ISSN 1725-6534 (online)

CONTENTS

EXECUTIVE SUMMARY	5	4 THE STRUCTURE OF THE EURO AREA BANK LENDING SURVEY	21
1 INTRODUCTION	6	4.1 Theory and practice: the design of the questionnaire	21
2 THEORETICAL BACKGROUND OF THE BANK LENDING SURVEY FOR THE EURO AREA	7	4.2 The sample group	24
2.1 Credit literature from a monetary policy transmission perspective	7	4.3 The method of aggregation	25
2.1.1 Interest rate channel: pass-through of official interest rates to bank lending rates	7	4.4 The compilation guide	26
2.1.2 Balance sheet channel: balance sheet position of borrowers	8	4.5 The presentation of the data	26
2.1.3 Bank lending channel: balance sheet position of banks	8	4.6 How to read the results of the bank lending survey	26
2.2 Credit literature from a business cycle perspective	10	5 THE FIRST RESULTS OF THE EURO AREA BANK LENDING SURVEY	28
2.2.1 Euro area	10	5.1 The results of the bank lending survey	28
2.2.2 United States	10	5.1.1 Enterprises	28
2.2.3 Lessons learned	12	5.1.2 Loans for house purchase	32
2.3 Synthesis of views on the bank lending process	13	5.1.3 Loans for consumer credit	35
2.4 Other available sources of information	13	5.2 Relationship with other indicators	39
2.5 Conclusions	15	5.2.1 Credit standards and real GDP growth	40
3 EXPERIENCES OF OTHER CENTRAL BANKS WITH BANK LENDING SURVEYS	16	5.2.2 Credit standards and MFI loan growth	41
3.1 The experiences of the Federal Reserve	16	5.2.3 Factors affecting credit standards and financial spreads	42
3.1.1 Development and structure	16	5.2.4 Factors affecting credit standards and industrial confidence	42
3.1.2 Publication of the survey results by the Federal Reserve	17	5.2.5 Conditions and terms for approving loans and corporate bond spreads	42
3.2 The experiences of the Bank of Japan	18	5.2.6 Factors affecting loan demand and gross fixed capital formation	43
3.2.1 Development and structure	18	5.2.7 Factors affecting loan demand and consumer confidence	44
3.2.2 Publication of the survey results by the Bank of Japan	19	5.3 Conclusions	45
3.3 Surveys on bank lending conducted in the euro area	20		

6 CONCLUDING REMARKS 46

ANNEXES

- 1 The questionnaire of the bank lending survey for the euro area **47**
- 2 The compilation guide of the bank lending survey for the euro area **55**
- 3 The October 2004 Federal Reserve Senior Loan Officer Opinion Survey on Bank Lending Practices **58**
- 4 The October 2004 Bank of Japan Senior Loan Officer Opinion Survey on Bank Lending Practices at Large Japanese Banks **71**

REFERENCES 82

EXECUTIVE SUMMARY

In 2003 the Eurosystem developed a bank lending survey for the euro area in order to obtain more detailed information on credit markets, and therefore on the role of credit in business cycles and in the transmission process of monetary policy. The survey consists of a set of qualitative questions which, at the beginning of each quarter, will be put to a predefined sample group of banks located in the 12 countries of the euro area. The first survey was conducted in early 2003, and its results were published for the first time in May 2003.

This occasional paper explains why the bank lending survey was developed and describes its main features. It discusses the importance of credit developments for both the economy and the functioning of monetary policy, and further clarifies why the survey was introduced. Furthermore, the paper demonstrates that the value added of implementing a bank lending survey for the euro area lies in particular in the way it provides greater insight into developments in credit standards, non-interest rate credit conditions and terms, the risk perception of banks and the willingness of banks to lend. Credit standards are the internal guidelines or criteria of a bank which reflect the bank's loan policy. The terms and conditions of a loan refer to the specific obligations agreed upon by the lender and the borrower. This occasional paper also considers similar surveys conducted by the Federal Reserve System in the US and by the Bank of Japan.

The three main reasons for the introduction of the bank lending survey for the euro area can be summarised as follows. First, it should provide monetary policy-makers in the euro area with more specific information related to credit conditions such as information on changes in credit standards, credit conditions and terms, and loan demand, for both enterprises and households. Second, the bank lending survey should also provide specific information that can only be obtained directly from the lenders – i.e. the banks, for example with regard to the question as to whether banks are relying more

heavily on non-price rationing of loans, and if so why. Third, information derived from the bank lending survey, in particular regarding changes in credit standards, should help policy-makers to gain a better insight into future economic developments.

Finally, this occasional paper presents the results of the first eight rounds of the euro area bank lending survey and compares them with information collected from other sources. The analysis carried out shows that overall, even at this early stage, it is possible to identify some systematic patterns in the results from the bank lending survey that prove to be in line with indicators retrieved from other data sources.

I INTRODUCTION

With all peoples, in all eras, commercial crises were always accompanied by monetary crises. The institution of credit alone thus leads, by its abuse, to the commercial crises. Credit is the primary and principal motor of this whole mechanism.

Clément Juglar, 1889

The Eurosystem – the European Central Bank (ECB) and the national central banks (NCBs) of the 12 EU Member States that have adopted the euro – has developed a survey on bank lending developments in the euro area, which was published for the first time in April 2003. This survey helps the Governing Council of the ECB to assess monetary and economic developments in the euro area, and offers important input into the monetary policy decision-making process. The survey complements existing quantitative statistics on bank retail interest rates and credit with qualitative information on supply and demand conditions in the euro area credit markets and on the bank lending policies of euro area banks.

Credit developments are an important determinant of economic developments, and conditions in credit markets may affect the way monetary policy has an impact on the economy. The bank lending survey enhances the understanding of the Eurosystem and the public on conditions existing for bank lending.

The bank lending survey for the euro area addresses issues such as credit standards for approving loans as well as credit terms and conditions applied to enterprises and households. It also asks banks for an assessment of the conditions affecting credit demand. The survey is addressed to senior loan officers of a representative sample of euro area banks, and is conducted four times a year. The sample group participating in the survey comprises around 90 banks from all euro area countries, and takes into account the characteristics of their respective national banking structures. This occasional paper aims to provide detailed insights into this tool and also to serve as a reference work for those interested in obtaining a deeper understanding of the euro area bank lending survey.

This occasional paper is organised as follows. Chapter 2 reflects the theoretical underpinnings behind the decision to establish a bank lending survey for the euro area. Chapter 3 provides an overview of the experiences of other central banks with bank lending surveys. Chapter 4 describes the structure of the bank lending survey for the euro area. Chapter 5 follows with a discussion of the results to date of the survey based on the first eight survey cycles (January 2003 – October 2004). Chapter 6 concludes with some final remarks. Annexes 1 and 2 contain the actual questionnaire together with the compilation guide that accompanies it. Finally, Annexes 3 and 4 contain similar surveys conducted by the US Federal Reserve and the Bank of Japan respectively.

2 THEORETICAL BACKGROUND OF THE BANK LENDING SURVEY FOR THE EURO AREA

This chapter justifies the decision to implement a bank lending survey for the euro area. The main objective of such a loan survey is to improve information on the lending behaviour of banks in order to enhance our understanding of the role of credit in the monetary transmission mechanism and in business cycles. A better understanding of the significance and relevance of credit developments is important for the ECB's monetary policy. Credit developments may have a different implication for the conduct of monetary policy, depending on their determinants, especially whether supply or demand factors are the dominant factors in place. Changes in the quantity and price of bank credit depend on a wide range of supply and demand factors that are not always directly observable, such as the prevailing competitive forces in credit markets, the availability of alternative sources of finance, the cost and availability of loanable funds, the value of collateral, financing needs in the economy, etc.

This chapter is organised as follows. First, a brief review is provided of the literature on the importance of credit from the perspective of monetary policy transmission (Section 2.1) and from a business cycle perspective (Section 2.2). Both sections simply outline the main issues at stake and do not aim at providing a complete and comprehensive overview of theoretical and empirical bank lending studies. The interested reader can examine the empirical findings for euro area (countries), particularly regarding the role of banks in the transmission mechanism and the existence of financial friction affecting firms' investments as presented in ECB Working Papers 91-114, ECB (2002), Angeloni et al. (2003a and b), and Angeloni and Ehrmann (2003). Section 2.3 synthesises both views on the bank lending process. Section 2.4 examines other available sources of credit information apart from the bank lending survey, focusing on the qualitative nature and subjective views and expectations of the responses to the bank lending survey. Finally, Section 2.5 concludes with some summarising remarks.

2.1 CREDIT LITERATURE FROM A MONETARY POLICY TRANSMISSION PERSPECTIVE

2.1.1 INTEREST RATE CHANNEL: PASS-THROUGH OF OFFICIAL INTEREST RATES TO BANK LENDING RATES

Monetary policy decisions are transmitted through the economy in a variety of ways, all of which eventually affect the evolution of prices and output. The monetary policy transmission mechanism is a combination of all the economic channels through which, over time, monetary policy affects the economy.¹

The traditional macroeconomic textbook picture of the monetary policy transmission mechanism contends that central banks influence the intertemporal allocation of resources by changing policy interest rates. However, a central bank controls only the short end of the yield curve. The reaction of interest rates at longer maturity depends on market expectations about the future stance of monetary policy.

Commercial banks play a key role in transmitting changes in official rates to bank lending rates. The pass-through of interest rate changes to bank lending rates depends on the interplay of supply and demand for credit and on the structure of banking markets. Competition in the financial services industry, bank-customer relations, preferences regarding the maturity of credit contracts or variability of interest rates, risk premia and the administrative cost of effectively changing interest rates are all likely to influence the effectiveness of monetary policy actions via their influence on the bank lending rate pass-through.

¹ A more detailed overview of these monetary policy transmission mechanisms can be found in ECB (2000) and (2002).

2.1.2 BALANCE SHEET CHANNEL: BALANCE SHEET POSITION OF BORROWERS

In the last few decades, many studies have focused on credit markets, which play a critical role in the transmission of monetary policy actions to the real economy (Angeloni et al. (2003a)).² The credit view departs from the traditional macroeconomic textbook picture of monetary policy transmission by stressing that financial markets are characterised by imperfections. Agency costs associated with imperfect information between lenders and borrowers or costly monitoring create a wedge between the cost of external and internal funds (the external finance premium) and increase the sensitivity of investment to variables such as net worth or cash flow. The credit view distinguishes between different non-monetary assets, either along the dimension of bank versus non-bank sources of funds, or along the more general dimension of external versus internal financing. It also highlights the fact that borrowers are heterogeneous, stressing that some may be more vulnerable to changes in credit conditions than others. A rise in interest rates may have a much stronger contractionary impact on the economy if the balance sheets of borrowers are already weak, introducing the possibility of distributional effects of monetary policy.

The balance sheet channel, which is also denoted as a financial accelerator or “broad” credit channel, emphasises the role of the borrowers’ financial structure in the propagation of financial and real shocks.³ A firm’s financial position, which can be derived from its balance sheet, is likely to be an important factor with regard to the possibility of obtaining external finance. This is reflected in the size of the external finance premium. A change in borrowers’ net worth or collateral modifies the external finance premium and the overall terms of credit faced by borrowers. Monetary policy actions can affect borrowers’ net worth in different indirect ways. An expansionary monetary policy strengthens borrowers’ net worth by a rise in equity, house,

land or other asset prices, or by an increase in firms’ cash flow caused by the decline in nominal interest rates.

2.1.3 BANK LENDING CHANNEL: BALANCE SHEET POSITION OF BANKS

The bank lending channel, also known as the “narrow” credit channel, is based on two conditions. First, it assumes that monetary tightening drains liquidity from the banking system: as a result, bank liabilities are shrinking. Because of this decline in total liabilities, banks would have to adjust total assets accordingly. Given the imperfect substitutability between loans and other assets, the result would be a decline in the supply of loans. Second, it assumes that the decline in the supply of loans affects borrowers. Households and small firms in particular would lack access to other forms of credit apart from bank loans. This condition of bank dependence means that there is no perfect substitute for bank loans on the liability side of certain types of borrowers.

Both conditions are still subject to considerable debate in the economic literature. Turning to the first condition, Romer and Romer (1990) argue that following a monetary policy tightening, banks may issue money market liabilities such as large certificates of deposits to offset any drop in deposits. In this way, monetary policy authorities have limited control on the liability side of bank balance sheets. Furthermore, if there is indeed a decline in bank liabilities following a monetary tightening, banks may sell liquid assets instead

2 Among many others, see Bernanke and Blinder (1988), Gertler and Gilchrist (1993), Bernanke and Gertler (1995), Hall (1999), de Bondt (2000) and Kakes (2000).

3 For example, a theoretical study by Kiyotaki and Moore (1997) shows how credit constraints interact with aggregate economic activity over the business cycle. In particular, the dynamic interaction between credit limits and asset prices as collateral for loans is a powerful transmission mechanism by which the effects of shocks persist, amplify and spill over to other sectors. Other well-known theoretical studies employing this mechanism in a dynamic context are Bernanke and Gertler (1989) and Greenwald and Stiglitz (1993). These models are able to generate a propagation and amplification mechanism through which small monetary and real disturbances have persistent real effects.

of reducing loan supply to realise the decline in total assets. Overall, the issuance activity of money market liabilities by banks and the holding of liquid assets may act as a buffer that insulates loan supply from monetary policy changes. Regarding the second condition, one may argue that the dependence on bank financing in the euro area economy is declining because of the growing importance of security-based financing. Although only a limited number of (large) enterprises have access to financing sources based on securities instead of loans, these firms may help those firms without direct access to capital markets through trade credit (Kohler, Britton and Yates (2000)). In other words, financing flows between firms may weaken the degree of dependence on bank financing in an economy.

Banks also play a key role in observed periods of sharply increased non-price credit rationing, also known as “credit crunches”. The credit rationing theory contends that some of the borrower’s demand for credit is turned down, even if the borrower is willing to pay the price of the loan contract (Stiglitz and Weiss (1981)). As a result, bank lending rates do not always equilibrate the supply of and demand for bank credit, and the aggregate amount of credit is constrained by factors such as non-interest rate credit terms. The underlying factor of a credit crunch may be a change in the risk perception of banks (internal constraint), which in turn could be triggered by a change in monetary policy, or a shortage of bank capital (external constraint). The latter phenomenon is also called a capital crunch or squeeze (Bernanke and Lown (1991) and Woo (1999)). Another indication of the independent role of the supply of credit in a capital crunch context is that poorly capitalised banks reduce their lending much more than better capitalised banks (Peek and Rosengren (1995), Altunbaş et al. (2004)).

Another important ingredient of the bank lending channel is the willingness of banks to lend, which is closely related to their risk perception as mentioned before. The amount of

credit provided by banks depends on the degree of uncertainty about the creditworthiness of borrowers and on the state of bank expectations. In this respect, it is noteworthy that in post-Keynesian credit view models, not only asymmetric information between lenders and borrowers is essential, but also asymmetric expectations between lenders and borrowers and the general state of confidence (Wolfson (1996)). Although borrowers may know more than lenders and vice versa (“asymmetric information”), both lenders as well as borrowers are subject to fundamental uncertainty about the future. It is not necessarily the case that both will come to the same conclusion about the future profitability of any particular project. Due to these asymmetric expectations, borrowers will be rationed when projects are deemed safe by the borrower but too risky by the lender. The certainty or confidence with which these assessments are made is also important.

Two states of confidence can therefore be distinguished. The first is the belief by consumers and producers in their role as borrowers about prospective returns from labour and financial investments and investment projects respectively (i.e. the willingness to consume and the willingness to invest). The second is the so-called “state of credit”, which is governed by the confidence that lenders have in financing consumption or investment expenditures (this is termed the willingness to lend). In a crisis, a sudden change in one of these states of confidence from strong to very weak is quite typical. The economy only recovers from the crisis when both states of confidence have recovered.

2.2 CREDIT LITERATURE FROM A BUSINESS CYCLE PERSPECTIVE

This section reviews the empirical evidence of the role of credit in the business cycle for the euro area and the United States.⁴ On the one hand, in the business cycle literature, in early versions of real business cycle (RBC) models, credit and monetary policy play no role at all.⁵ On the other hand, monetarist interpretations of the business cycle put forward a key role for credit. One of the originators of credit cycles is Juglar (Niehans (1992)), whose main idea was that economic fluctuations originate in credit markets. Prices and their interaction with bank credit were assigned a dominant role in the cyclical mechanism, which consists of three phases. In the “prosperity phase” of the business cycle, which may last from seven to nine years, banks that are confident about the future (compare with Keynes’ state of credit – see Keynes (1936)) tend to extend credit relatively easily, and are unworried about the gradual decline in their liquidity. As a consequence, prices will rise. During the short “crisis phase”, credit growth shows a steep, virtually vertical drop. After this crisis period, the overblown credit structure is gradually adjusted to more normal proportions, prices subside, confidence returns and the stage is set for a new upswing. This is the so-called liquidation phase, which lasts two to four years and in any case is much shorter than the prosperity stage.

2.2.1 EURO AREA

An in-depth analysis of the role of bank loans to households and enterprises in business cycles for the euro area as a whole has not yet, to the best of our knowledge, been performed.⁶ In contrast, the literature about business cycles in individual European countries is extensive. These country studies, however, focus either on the interaction between national business cycles and international business cycles or on a particular theoretical framework, e.g. the RBC theory.⁷ Although some studies have addressed the cyclical properties of money, prices and

interest rates, there is a surprising absence of focus on credit. Of course, national studies for individual euro area countries have appeared that provide anecdotal evidence of strong credit cycles. For example, the real estate lending crisis in the late 1980s and early 1990s in France and the banking crisis of the early 1990s in Finland have been investigated in depth by Pazarbasioglu (1997) and Vihriälä (1997) respectively.

2.2.2 UNITED STATES

In contrast to the literature for the euro area, many Federal Reserve studies have investigated the role of credit in business cycles in the United States. The main findings from these studies are summarised below. These findings are, however, not uncontroversial. For instance, Poole (1993) questions the role of credit in business cycles and concludes that inflation surprises and revisions in expectations about future income flows drive business cycles.

The first main finding is that credit crunches are strongly related to fluctuations in economic activity. Looking at post-war business cycles in the United States, Eckstein and Sinai (1986) show that every recession since the mid-1950s (that is, six out of the eight post-war recessions) was preceded and triggered by a credit crunch. In another paper, Sinai (1993) emphasises that credit crunches are part of an

4 For an extensive review of cyclical theories of financial crises, see Wolfson (1994). The main differences between the various financial crisis theories concern i) the reasons for the development of financial difficulties in the business sector, ii) the factor influencing the supply and demand of credit, and iii) the defining patterns of a financial crisis.

5 For instance, see Van Els (1995) for a survey of RBC models and the role of money in RBC theory.

6 A study on the properties of business cycles in the euro area by Döpke (1999) ignores the role of credit. Agresti and Mojon (2003) do look, among many other variables, at total private sector loans. They find that loans lag economic activity by up to four quarters.

7 Among many other references, references for the first group of studies are Ortega (1998) (Spain, 1970-1996), Bergman et al. (1992) (Nordic countries, 1870-1988) and, for the second group of studies, Stanca and Gallegati (1998) (Italy 1861-1992), Fiorito and Kollintzas (1992) (G-7 countries) and Karras (1994) (France, Germany and United Kingdom).

endogenous process and that each credit crunch differs from earlier ones only in its superficial features. Wojnilower (1980 and 1985) also contends that credit crunches have been a crucial determinant of the post-war recessions in the United States. More recently, Wojnilower (1997) argues that even though credit crunches have not triggered a recession in the United States for a long time, disruptions in credit markets have continued to play an important role in business cycles. Schreft and Owens (1995) define a period of a sharp increase in non-price credit rationing as a credit crunch. They identify four credit crunches in the United States during the period 1960-1992, whereby each credit crunch episode was preceded by a period of strong credit demand, relatively rapid growth in credit extensions and rising inflationary expectations.

An overview study of the literature by Sharpe (1995) assesses whether a credit crunch in the United States in the early 1990s was caused by increased capital requirements, more stringent regulatory practices, or the widespread deterioration of bank balance sheets. At the disaggregated level, a robust link is found between loan growth and loan performance and bank profitability, though the interpretation of such findings remains ambiguous. Changes in capital standards or regulatory behaviour also fail to explain convincingly the drop in aggregate lending.

The second main finding is that credit standards help to predict loan and real GDP growth. Asea and Blomberg (1998) show, by looking at two million commercial and industrial loans granted by 580 US banks between 1977 and 1993, that banks systematically change their lending standards from tightness to laxity over the business cycle. Their findings suggest that lax lending standards, which tend to occur during expansions, exert considerable influence on the dynamics of aggregate business cycle fluctuations.

The notion of a lending standards cycle is also analysed in depth by Weinberg (1995). His main point is that there is a natural tendency for lending standards to vary inversely with the level of activity in the credit markets.

Lown, Morgan and Rohtagi (2000) find that a net tightening of credit standards – as for example reported in the Federal Reserve’s “Senior Loan Officer Opinion Survey on Bank Lending Practices” – is highly negatively correlated with aggregate commercial loan growth. Furthermore, it is also correlated with other measures of credit availability such as loan spreads, the relative importance of commercial paper with respect to bank loans, and the spread between interest rates on non-financial commercial paper and Treasury bills. They also find that reported changes in credit standards can predict narrower measures of business activity, including inventory investment and industrial production. Finally, using the vector autoregression (VAR) approach, these authors conclude that banks set their credit standards based largely on their own lending capacity coupled with their expectations, so that credit standards seem to be relatively exogenous compared with other macroeconomic variables included in the system.⁸

In later studies, Lown and Morgan also use the VAR methodology to investigate the causality between credit standards, bank lending and economic output (Lown and Morgan (2002 and 2004)). The results indicate that shocks to credit standards have a significant impact on both commercial loan volumes and real output – in other words, there is a strong correlation between loan officers’ reports of tighter credit standards, as evidenced by the results from the Senior Loan Officer Opinion Survey, and

⁸ The VAR approach is based on the assumptions that all the economic and financial variables which are used in the empirical investigation are endogenous and that each can be written as a linear function of its own lagged values and the lagged values of all the other variables in the system, where the number of lags is to be determined somehow (Kennedy (1998), p.168). It is nowadays widely used for empirical macroeconomic research.



observed slowdowns in commercial lending and output. Changes in these standards lead to changes in output and bank loans, while past values of bank loans cause changes in credit standards. And importantly, when credit standards are taken into account, the significance of changes in the Fed's policy interest rate – i.e. the federal funds rate – on output is reduced.

All but one of the recessions in the US were preceded by a high net percentage of loan officers reporting a tightening of credit standards. The only exception – the 1982 recession – was preceded by a sharp shift upward in the net percentage of banks reporting a tightening of credit standards, from a net easing of credit standards toward a net tightening. Tighter credit standards are usually followed by a slowdown in the growth of commercial loans.

This confirms the earlier finding of Schreft and Owens (1991). They constructed an indicator that measured the net (un)willingness of banks to lend, which showed that a tightening of credit standards occurs before or during recessions. Changes in commercial credit standards also help to predict narrower measures of economic activity such as industrial production and inventory investment, of which the latter is a notoriously unpredictable variable. Following a tightening of credit standards, loans decline sharply and output falls.

The third and final main finding is that banks' willingness to lend has an impact on economic activity. Lown (1990) explores the banking industry's role in the economy and finds evidence to support the idea that changes in the composition of banks' asset holdings do tend to predict changes in economic activity. For example, the ratio of security holdings to total assets strongly predicts economic growth. These relationships can be explained either by changes in banks' willingness to lend or by changes in firms' willingness to borrow. Duca and Garrett (1995) find that a proxy for non-

interest rate credit conditions significantly affects bank consumer lending. The proxy used is an index of the change in banks' willingness to offer consumer instalment loans, based on the Federal Reserve Board's bank lending survey. This proxy for the willingness to lend substantially affects durable consumer spending. Schreft and Owens (1991) show that a decreased willingness to lend, proxied again by a measure based on the Federal Reserve Board's bank lending survey, occurs either before or during recessions.

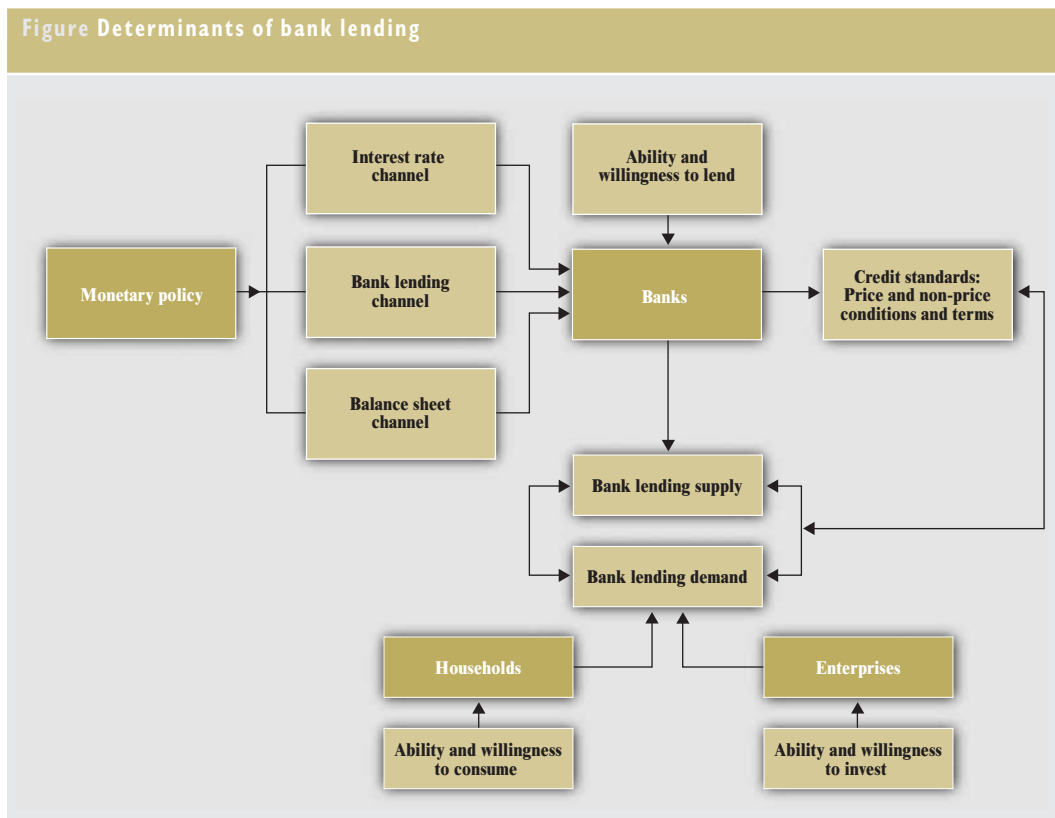
2.2.3 LESSONS LEARNED

What can be learned from the US findings? In general, two main conclusions can be drawn from the above.

The first is that credit crunches can be very harmful for the economy. This implies that all potentially useful information about whether supply or demand factors play a key role in granting bank credit should be closely monitored and assessed. It is exactly in this context that bank lending survey responses, which improve insight into bank credit standards and conditions and the demand for bank loans as perceived by banks, might help to solve the credit supply versus demand puzzle. For example, Suzuki (2004) uses the lending attitude of banks to identify the demand for and supply of bank loans in Japan.

The second lesson is that the US evidence shows that responses to the bank lending survey contain valuable information about future economic growth and loan growth. This applies especially to the tightness in credit standards. More generally, the US findings illustrate that subjective survey measures of banks' views and expectations could provide accurate and meaningful indicators for loan and economic growth. They confirm the potential usefulness of qualitative vis-à-vis quantitative data, as for instance shown by Manski (2004).

Figure Determinants of bank lending



2.3 SYNTHESIS OF VIEWS ON THE BANK LENDING PROCESS

This section provides an overview of the emerging picture of the relevant determinants of bank lending, together with an overview of the different monetary transmission channels and the relationship between credit determinants.

Figure 1 above illustrates in a simplified way the interaction between the main determinants of the supply of and demand for bank credit. For the sake of simplicity, it abstracts from many interactions between the key determinants of credit cycles. To take but one example, the interactions between the willingness to consume/invest and to lend are not included.

The supply of bank lending depends on the ability and willingness of banks to lend, which, in turn, is affected by various monetary

transmission channels. In this respect, essential factors are bank lending rates (interest rate channel) and non-price credit conditions and terms other than the interest rate (bank lending and balance sheet channel). More generally, the different monetary transmission channels affect the credit standards for approving credit and the non-interest rate credit conditions and terms. In turn, financing needs of consumers and producers and thus the demand for bank lending depend on the ability and the willingness to consume and invest. The demand of bank lending also depends on, for instance, bank lending rates.

2.4 OTHER AVAILABLE SOURCES OF INFORMATION

Table 1 provides an overview of the relations between credit determinants and monetary transmission channels and, to the best of

our knowledge, all available sources of information on credit determinants apart from the bank lending survey.

With regard to credit standards, insight into competition faced by banks from other banks, non-banks or capital markets and the risk perception of banks is not readily available from other sources, or if so, only in the form of indirect indicators. The potential value added of qualitative responses from the bank lending survey is therefore generally high.

Turning to credit conditions and terms, data are in particular available on the interest rate channel. For example, several bank lending rates are available for the euro area, whereas

information on the maturity structure can be extracted from the monetary financial institution (MFI) balance sheet data. Data on non-interest rate credit conditions and terms are less widely available, in particular information on the size and non-interest rate charges of credit lines and the risk perception of banks. Since late 2003, though, statistics on MFI interest rates (i.e. MFI interest rate statistics) have provided insights into the size of non-interest rate charges applied to loans to households for house purchase and for consumer credit in the euro area (ECB (2003)). Current insight into expected bank lending behaviour is typically only based on anecdotal evidence. The potential value added of the bank lending survey is generally high, particularly for non-interest rate credit conditions and terms and

Table 1 Overview of relationships between credit determinants, monetary transmission channels and sources of credit information

Credit determinants	Transmission channel	Sources of credit information other than the bank lending survey
Credit standards		
Competition from other banks, non-banks or from market financing	Interest rate and bank lending channel	Indirect indicators of competition
Balance sheet position of banks (costs related to bank capital position, bank liquidity position, access to market financing)	Bank lending channel	Bank balance sheets
Degree of bank dependence	Bank lending channel	Relative importance of bank loans
Risk perception/tolerance of banks (risk to general, household or firm-specific economic outlook, risk on collateral demanded)	Bank lending and balance sheet channel	Risk proxies, e.g. corporate bond spreads, loan-to-value ratio
Credit conditions and terms		
Maturity structure	Interest rate channel	Bank balance sheets
Loan rates, bank margins	Interest rate and	Retail bank rates/MIR statistics
External finance premium	Balance sheet channel	Proxies for rates on external and internal finance
Balance sheet position of borrowers (creditworthiness, collateral requirements and quality)	Balance sheet channel	Net worth of borrowers based on asset prices, income, cash flow, etc.
Size and non-interest rate charges of credit lines	Bank lending channel	MIR statistics, anecdotal evidence
Expected lending behaviour		
Willingness to lend, confidence of banks	Bank lending and balance sheet channel	Anecdotal evidence
(Expected) demand for loans		
Ability and willingness to consume and invest	Interest rate channel	Real sector variables and confidence indicators

expected bank lending behaviour. The bank lending survey provides timely additional qualitative data from a lender and from a loan supply perspective.

Finally, with regard to demand for loans, a wide range of real sector variables, capturing the ability to consume or invest, are available. Confidence indicators for the real sector, which reflect the willingness to consume or invest, are also available. Two widely-used confidence indicators for the euro area are the EC consumer and producer confidence indicators and the Purchasing Managers' Index, which are all based on monthly surveys. The potential value added of the bank lending survey here is the timely availability of insights into expected loan demand from a lender perspective.

2.5 CONCLUSIONS

This section has provided a theoretical underpinning for the bank lending survey in the euro area. Ample empirical evidence for the United States shows that most post-war recessions have been preceded or triggered by a sharp fall in credit or by a credit crunch. Furthermore, credit standards and terms and the willingness of banks to lend tend to affect economic activity. However, similar stylised facts of credit cycles in the euro area could not be detected, mainly due to a lack of adequate data that would permit the identification of bank loan supply and demand effects.

An overview of the relationship between credit determinants and monetary transmission channels and the available sources of information on credit determinants other than the bank lending survey shows that the latter could potentially improve insight into the lending behaviour of banks in the euro area and, through this, into the role of credit in the monetary transmission process and in business cycles as well. The potential value added of a euro area bank lending survey is that it provides improved insight into credit standards, non-

interest rate credit conditions and terms, the risk perception of banks and the willingness of banks to lend. Responses to the euro area bank lending survey might particularly help in identifying bank loan supply versus demand and in more effectively extracting information from qualitative data, i.e. the subjective views and expectations of the major euro area banks vis-à-vis quantitative data.

3 EXPERIENCES OF OTHER CENTRAL BANKS WITH BANK LENDING SURVEYS

Given the important role that credit plays in the economy, as discussed in the previous chapter, the bank lending survey for the euro area has been developed to provide more specific information on credit conditions for both enterprises and households. Related to this, two of the world's other leading central banks have developed their own surveys with rather similar objectives. Experiences with bank lending surveys conducted by the Federal Reserve System in the United States and by the Bank of Japan have shown that they can provide important additional information for the assessment of past and future developments in credit markets. This chapter predominantly focuses on the experiences with bank lending surveys in the United States, and briefly discusses the much more recent corresponding survey in Japan. It ends with a short assessment of the use of bank lending surveys in individual euro area countries.

3.1 THE EXPERIENCES OF THE FEDERAL RESERVE

The Federal Reserve (or Fed for short) publishes a quarterly bank lending survey that is officially entitled the "Senior Loan Officer Opinion Survey on Bank Lending Practices". As the Federal Reserve is the central bank with the longest experience in conducting a bank lending survey, particular attention will be paid to its experiences. This section will discuss the development and structure of the survey and the publication of its results.

3.1.1 DEVELOPMENT AND STRUCTURE

The Senior Loan Officer Opinion Survey was introduced for the first time in 1967. Since then, the basic structure of the survey in terms of regular questions and possible answers has been changed several times, reflecting changing concerns about specific credit issues. During the 1980s, the focus of the survey shifted from conjectural analysis to more structural issues. This direction was reversed in the early 1990s, apparently because concerns

about a credit crunch had become more acute. Thus, most of the present questions were developed at that time and have provided rather useful time series since then, and indeed constitute the core framework of the current survey. In practice, since the survey has changed a number of times, the analysis based on its results is somewhat constrained. For instance, in 1981 the original sample of banks was reduced and the set of regular questions cut from 22 to six, to allow for the inclusion of more ad hoc questions on current developments. Moreover, in 1984, the question on commercial credit standards for business loans was dropped and only reintroduced with a different wording at the beginning of 1990. This means that the most suitable information that can be used for empirical studies, i.e. covering the longest time horizon and available for a stable sample group, therefore relates to the questions on credit standards.

The survey is generally conducted on a quarterly basis and in such a way that its results are available for the January, May, August and November meetings of the Federal Open Market Committee. The Federal Reserve has the authority to conduct up to two additional surveys during the year. For example, in March 2001 the Fed conducted a supplementary survey to assess changes in lending conditions since the beginning of that year.⁹

The Fed's bank lending survey is a combination of a set of regular questions and various additional ad hoc questions, which address current topics of interest regarding developments and trends in credit markets. These topical questions have covered a variety of issues in the past, such as banks' participation in secondary loan markets, changes in the credit quality of commercial real estate loans, and activities of participating banks in the credit default swap market. Overall, the Fed adopts a rather flexible approach with respect to the structure of its

⁹ Senior Loan Officer Opinion Survey, March 2001; see webpage Federal Reserve Board (<http://www.federalreserve.gov/boarddocs/SnLoan-Survey/200103/default.htm>).

bank lending survey, which allows it to acquire rather detailed information on specific issues, if deemed necessary. In contrast to the more quantitative survey on loan rates that the Fed also publishes, the bank lending survey is qualitative.

The current sample size of the survey is about 60 domestic banks, usually the largest in each of the 12 Federal Reserve Districts. Banks are added or replaced as needed. As a result of merger activities involving some of the largest US banks, the sample has been adjusted rather frequently in recent decades. In addition, a number of branches and agencies of foreign banks located in the United States are covered as well (results for the latter are published separately).

The implementation of the survey is the responsibility of the Research Departments of the district Federal Reserve Banks involved. The district banks send the questionnaire to the individual banks and provide explanations and support whenever there are new questions or participants. After receiving the individual responses, they send them to the Federal Reserve Board.

The Federal Reserve's bank lending survey covers a wide range of types of loans, such as commercial real estate loans, residential mortgage loans and credit card loans. All in all, the survey seems to play an important part in forming the Fed's understanding of developments in US credit markets, and its results are widely reported in the US and in the international financial media. Based on the results of various research papers, it is generally considered a good early leading indicator and is the prime indicator for the possible occurrence of credit crunch-type situations (see sub-Section 2.2.2).

3.1.2 PUBLICATION OF THE SURVEY RESULTS BY THE FEDERAL RESERVE

The Federal Reserve publishes a full report on the survey's results on the internet, and hard

copies can be obtained as well.¹⁰ For questions on changes "over the past three months", where respondents can choose among various categories (tightened considerably, tightened somewhat, remained basically unchanged, eased somewhat, and eased considerably), the Fed publishes the absolute number of respondents as well as percentage values for each category. The presentation of these results follows a classification that distinguishes between "all respondents", "large banks" and "other banks".

For questions where banks are required to choose among various factors to explain changes in their lending policies as well as changes in loan demand, the Federal Reserve reports the simple averages of the total responses after having assigned a number between 1 and 5 to some questions (using a scale where 1 = "tightened considerably" and 5 = "eased considerably"), and for other questions a number between 1 and 3 (where 1 = "not important" and 3 = "very important").

Additionally, the Federal Reserve provides six indicators based on the results of the survey (see Box 1). The indicators are constructed on the basis of balances, i.e. net percentages. For instance, in the case of the net percentage of respondents reporting tightening standards in loans, the balance is calculated as the difference between the number of respondents reporting "tightened considerably" or "tightened somewhat" and those reporting "eased considerably" or "eased somewhat" as a percentage of all respondents. Therefore, the larger the difference, the greater the net tightening of credit standards. For the indicators representing the results for commercial and industrial loans, the net percentages of answers for both large and medium-sized firms and small firms are shown. With regard to households, the corresponding indicators show the results for various types of loans, including credit cards and other loans, residential mortgages and consumer loans.

10 See <http://www.federalreserve.gov/boarddocs/SnLoanSurvey/>.

Box I

INDICATORS REPRESENTING THE RESULTS OF THE FEDERAL RESERVE'S BANK LENDING SURVEY

Measures of supply and demand for commercial and industrial (C&I) loans, by size of firm seeking loan

Net percentage of domestic respondents tightening standards for C&I loans

Net percentage of domestic respondents increasing spreads of loan rates over banks' costs of funds

Net percentage of domestic respondents reporting stronger demand for C&I loans

Measures of supply and demand for loans to households

Net percentage of domestic respondents tightening standards on consumer loans

Net percentage of domestic respondents reporting stronger demand for loans to households

Net percentage of domestic respondents tightening standards for mortgages to individuals

With respect to the use of the survey's results, the Federal Reserve has started to link the responses of individual banks to specific questions, which are not available to the general public, to various other bank-specific financial indicators. One recent example of the use of individual responses is the study by Bassett and Carlson (2002) on the development of US commercial bank profits in 2001. This seems to be the first publication of the Federal Reserve to contain an analysis based on individual bank responses to the Senior Loan Officer Opinion Survey that have been linked to other reported data on individual banks. In particular, the authors identified the sources behind the slowdown in commercial and industrial loans at the individual bank level by distinguishing between supply and demand factors.

3.2 THE EXPERIENCES OF THE BANK OF JAPAN

The bank lending survey implemented by the Bank of Japan (BoJ) is called the "Senior Loan Officer Opinion Survey on Bank Lending Practices at Large Japanese Banks". This section will discuss its development and structure and the publication of its results. As the BoJ bank lending survey is a relatively recent product, little information is publicly

available with respect to its use for analytical purposes.

3.2.1 DEVELOPMENT AND STRUCTURE

The BoJ's bank lending survey was introduced in March 2000 and is, as has been acknowledged publicly, broadly modelled on the Federal Reserve's Senior Loan Officer Opinion Survey (see Hida et al. (2002)). The BoJ's survey aims to measure the views of senior loan officers at large Japanese banks regarding loan market developments by means of a multiple choice questionnaire. The survey is conducted quarterly in January, April, July and September (Bank of Japan (2000)). The BoJ has the authority to implement additional surveys and last used this possibility in October 2004 when, in addition to the regular survey, it distributed an ad hoc survey on loans by respondents to firms that had been downgraded or upgraded according to the banks' internal credit rating systems during the past three months, following the categorisation of firms according to size.

Compared with the Fed's survey, differences exist in terms of the specific items that are covered by individual questions, and the time dimension. For example, with regard to the latter, the BoJ's survey is somewhat more forward-looking. Furthermore, the regular BoJ

bank lending survey has fewer questions (only 13) than its counterpart at the Federal Reserve. These questions are relatively evenly split between questions on the demand for loans and questions on the supply of loans or lending policies. The latter cover in particular items such as changes in credit standards for applications from firms and households, changes in the terms and conditions of lending, and changes in the spreads of loan rates over the banks' costs of funds.

The survey sample consists of 50 large private banks in terms of lending volume. The BoJ has publicly announced that it revises the list of banks included in the sample group every three years and did so for the first time in April 2003 (Bank of Japan (2003)). This is important, given the recent important changes in the structure of the Japanese banking system (see Van Rixtel et al. (2004)). The aggregated amount of loans covered by these banks accounted for approximately 74% of the average amount of outstanding domestic loans of Japanese private banks in 2003, comprising loans by city banks, long-term credit banks, trust banks, regional banks, second tier regional banks and *shinkin* banks (see Van Rixtel (2002)).¹¹ The participation of the latter three groups of banks, which consist of relatively small banks, is particularly important, as their responses are a good indication for credit developments related to small and medium-sized firms, since these finance their activities predominantly through bank loans.

The BoJ sends the questionnaire by mail at the end of the month prior to the survey, and compiles the results by the end of the survey month (Bank of Japan (2000)). The BoJ's Financial Markets Department is in charge of implementing the survey and sends the questionnaire directly to the participating banks.

The BoJ's bank lending survey enables it to compare changes in bank lending policies with information obtained from other surveys that

reflect changes in the financing needs of the non-financial corporate sector, particularly its short-term economic survey of enterprises in Japan or *Tankan* (Hida et al. (2002)). Thus, by combining the results from its bank lending survey and the *Tankan* survey, the BoJ has information from both the providers and borrowers of funds, reflecting developments in the demand for and supply of loans from both sides.

3.2.2 PUBLICATION OF THE SURVEY RESULTS BY THE BANK OF JAPAN

The BoJ publishes the results of its bank lending survey both on the internet and in hard copy format.¹² For questions where respondents can choose among five categories of answers (such as “substantially stronger”, “moderately stronger”, “about the same”, “moderately weaker” and “substantially weaker”), the absolute number of respondents, the percentage values for each category and the value of the diffusion index (DI) are presented. With the release of the April 2001 survey, the BoJ started to present the results of the survey also in the form of DI values for both the current and previous survey (Bank of Japan (2001)). Diffusion indices give a weighted average of the results of a particular question, whereby different answers are weighted differently. For example, for several questions on loan demand the DI value on a scale from -100 to 100 is calculated as “(the percentage of respondents selecting “substantially stronger” + the percentage of respondents selecting “moderately stronger” * 0.5) – (the percentage of respondents selecting “substantially weaker” + the percentage of respondents selecting “moderately weaker” * 0.5)”.

¹¹ *Shinkin* banks are regional financial institutions operating as a co-operative financial institution, relatively similar to co-operative savings banks.

¹² See http://www.boj.or.jp/en/stat/stat_f.htm.

For questions where banks are required to choose among various factors to explain their lending behaviour, the tables are similar to those used by the Federal Reserve, and report simple averages based on a three-point scale where 1 = “important”, 2 = “somewhat important” and 3 = “not important”.

3.3 SURVEYS ON BANK LENDING CONDUCTED IN THE EURO AREA

According to the individual countries that collectively form the Eurosystem (i.e. the ECB and the 12 euro area NCBs), no euro area NCB has yet conducted a full-scale and formal qualitative bank lending survey, in the form of a fixed set of questions which are asked within a certain time period to a fixed group of banks.

In the case of the Eurosystem, such information for the euro area as a whole has been lacking in the past. While the information channels at the national level are still in place, these are difficult to utilise in the Eurosystem in the absence of a standardised structure for the collection of information. In addition, the number of banks that operate on a cross-border basis and see the whole euro area as their domestic market seems to be increasing. For this purpose, it was deemed extremely useful to stipulate more formal procedures for the collection of this type of information in the form of a bank lending survey submitted to euro area banks.

4 THE STRUCTURE OF THE EURO AREA BANK LENDING SURVEY

This chapter describes the actual design of the euro area bank lending survey, which to a large extent was based on the theoretical considerations presented in Chapter 2 and the practical experiences described in Chapter 3. The most important part of the bank lending survey is the questionnaire. Other important elements include the sample of banks that participate in the survey, the method of aggregation of the answers, the protection of confidentiality, the compilation guide, the presentation of the results and the way to read the results.

4.1 THEORY AND PRACTICE: THE DESIGN OF THE QUESTIONNAIRE

From the start of the single monetary policy in January 1999 up until the introduction of the euro area bank lending survey in 2003, the monetary policy analyses of the Eurosystem concerning credit conditions in the euro area had been predominantly based on a set of quantitative data included in the official Money and Banking Statistics, reflecting overall developments in the euro area credit markets. These data provide the Eurosystem with information on aggregate credit market developments. However, they do not permit any investigation of supply and demand conditions in the euro area credit markets in general and of the bank lending policies of individual banks in the euro area in particular, for which qualitative survey data would be more appropriate.

With regard to the availability of data on credit markets in the euro area, the assessment of the banking sector's general lending behaviour forms a very relevant part of monetary policy decision-making, given its important role in the transmission process of monetary policy. This process has been described in detail in Chapter 2. Information on issues related to banks' lending policies, such as credit standards for approving loans, the willingness of banks to lend and credit conditions and terms, is of considerable importance in assessing the relevance of the various

transmission channels. Credit standards are the internal guidelines or criteria of a bank which reflect the bank's loan policy. The terms and conditions of a loan refer to the specific obligations agreed upon by the lender and the borrower.

Furthermore, as also discussed in Chapter 2, some general euro area-wide indicators exist with respect to the demand for credit concerning household and industrial confidence that can give some indication of credit demand conditions. However, banks' assessments of demand conditions, notably the purposes for which enterprises seek credit, are not covered specifically in any other information sources apart from the bank lending survey. Since banks monitor and assess credit markets on a continuous basis, they should be qualified to analyse the developments and reasons behind them. Indeed, for the monetary policy analyses of developments in the euro area credit aggregates and credit markets, it would be instrumental to obtain more information on the possible factors that underlie these developments.

It is clear that the Eurosystem is well informed about the behaviour of its respective banking system, and that it uses this information in its regular assessments of the economic and monetary situation. In many cases, this information is gained from regular contacts with the national banking sectors in the euro area. These information links are in many cases informal, but they remain valuable in that they provide the NCBs with information about their banks' assessments of developments in credit markets. The euro area bank lending survey adds value to this process by providing a more formalised instrument to underpin the discussions in the Eurosystem on developments in credit markets at the euro area-wide level.

Thus, overall, based on the theoretical insights presented in Chapter 2, the main motivation for the actual design of the bank lending survey can be summarised into three main points. First, the

bank lending survey should provide euro area monetary policy-makers with more specific information related to credit conditions, such as information on changes in credit standards, credit conditions and terms, and loan demand, for both enterprises and households. This information is of crucial importance in improving understanding of the transmission process of monetary policy. For example, the value added of the bank lending survey with respect to banks' credit standards should improve knowledge of the balance sheet and bank lending channels. The survey should also generate more specific information on credit conditions and terms, which had been less widely available before the introduction of the survey, particularly regarding non-interest rate credit conditions and terms such as the size and non-interest rate charges of credit lines, collateral requirements and loan covenants. Second, the bank lending survey should also provide specific information that can only be obtained directly from the lenders – i.e. the banks, for example related to the question as to whether banks are relying more heavily on non-price rationing of loans and if so, why. Third, information derived from the bank lending survey, in particular regarding changes in credit standards, should help provide policy-makers with greater insight into future economic developments.

The actual design of the euro area bank lending survey takes these considerations fully into account. The questionnaire covers both loan demand and supply, but focuses more on loan supply developments in order to fill the gap between the quantitative data on credit markets already available and the data requirements observed in Chapter 2. Particular attention is paid to issues such as credit standards, non-interest rate conditions and terms, and the willingness of banks to lend, an approach that is comparable to the orientation of the loan surveys of the Federal Reserve and the Bank of Japan. This also facilitates international comparisons. Furthermore, a limited number of questions are formulated in terms of

expectations, given the need for monetary policy to be forward-looking.

The actual questionnaire of the euro area bank lending survey is included in Annex 1. It consists of 18 regular questions (including one open-ended question), and is classified according to loans to the two specific sectors that are the central focus of the survey, i.e. “loans or credit lines to enterprises” and “loans to households”.

The specific classification of the questionnaire has resulted in the following structure (see Box 2). There are ten questions on credit standards applied to new loans or credit lines to enterprises and households, and seven questions on demand for loans or credit lines to enterprises and households. For enterprises, the general questions on developments in past and future credit standards and demand are subdivided into a sectoral breakdown (small and medium-sized enterprises versus large enterprises) and a maturity breakdown (short-term loans versus long-term loans). The questions on why and how standards have changed for enterprises do not contain these subdivisions. For households, the questions are split between similar questions on loans for house purchase and on new loans for consumer credit and other lending. This split has been made to capture the important contribution that housing loans make in the overall credit provision by banks in many euro area countries.

Thus, there are ten questions that pay attention to supply factors: seven on credit standards and three on conditions and terms of new loans. Seven questions focus on loan demand. Both backward-looking and forward-looking questions are included, in order to capture both developments that have taken place and expectations regarding future developments in credit markets (13 questions are backward-looking and four forward-looking).

Box 2

THE STRUCTURE OF THE QUESTIONNAIRE

- Questions on credit standards applied to loans or credit lines to enterprises and households (ten questions), which can be broken down as follows:
 - Changes in credit standards over the past three months (two questions). These questions cover, in the case of loans or credit lines to enterprises, both small and medium-sized enterprises and large enterprises, and short and long-term loans. In the case of households, they address loans for house purchase and consumer credit and other lending.
 - Factors which have affected changes in credit standards over the past three months (three questions). The factors taken into account are the cost of funds and balance sheet constraints, pressure from competition, perception of risk and the risk on the collateral demanded (the latter only in the question on loans or credit lines to enterprises).
 - Conditions and terms for approving loans or credit lines over the past three months (three questions). These questions investigate changes in pricing, such as margins on average and riskier loans, and other conditions and terms, which include non-interest rate charges, collateral requirements, maturity, the size of the loan or credit line and loan covenants (the latter two for enterprises only) and the loan-to-value ratio (the question on loans to households for house purchase only).
 - Expected changes in credit standards over the next three months (two questions). Similar coverage as the questions addressing developments in credit standards over the past three months.
- Questions on demand for loans or credit lines to enterprises and households (seven questions), which can be broken down as follows:
 - Demand for loans or credit lines over the past three months by enterprises and households (two questions). These questions cover, in the case of loans or credit lines to enterprises, both small and medium-sized enterprises and large enterprises, and short and long-term loans. In the case of households, they address loans for house purchase and consumer credit and other lending.
 - Factors which have affected changes in demand over the past three months (three questions). The factors taken into account are financing needs, debt restructuring (only in the question on enterprises) and the use of alternative finance.
 - Expected changes in demand for loans or credit lines to enterprises and households (two questions). Similar coverage as the questions addressing developments in demand for loans or credit lines over the past three months.
- One open-ended question

The questionnaire generally uses a scale with five possible answers. As an example, the options in the first question (“Over the past three months, how have your bank’s credit standards as applied to the approval of loans or credit lines to enterprises changed?”) range from “credit standards eased considerably” to “tightened considerably”. The more moderate options are

“eased somewhat” or “tightened somewhat”, while the neutral option is “remained basically unchanged”. For questions related to demand, “tightened” and “eased” are replaced by “decreased” and “increased”. For questions on why standards or demand have changed, the answers relate to whether a specific factor has contributed “considerably” or “somewhat” to a

particular development. It should be noted that these questions relate to how a specific factor, say costs related to a bank's capital position, have contributed to developments in credit standards. Thus, one could envisage that costs related to a bank's capital position have contributed considerably to tightening in a situation where a bank's credit standards have eased considerably owing to other factors.¹³

The questions on why credit standards or demand have changed and the questions on how credit standards have changed contain the same possible general factors independent of whether the questions relate to loans to enterprises, or to households for house purchases or consumer credit and other lending. Perception of risk, for example, is a possible explanatory factor for why credit standards have changed, independent of what the loan is intended for. However, the specific risk factors can differ. The industry or firm-specific outlook is a factor for loans to enterprises, but not for loans to households. Likewise, housing market prospects represent a very relevant risk factor for loans to households for house purchase.

4.2 THE SAMPLE GROUP

In setting up the sample of banks participating in the bank lending survey, the Eurosystem took into consideration the qualitative nature of the information it provides, the voluntary basis of the participation of banks and the need to capture sufficiently the specifics of the banking system in each Member State. Another crucial concern was to ensure the confidentiality of the information provided by the individual commercial banks.

As the bank lending survey is an opinion survey aimed at collecting qualitative data, it does not need to obey the same statistical requirements for coverage and representativity as other statistics. Nevertheless, the results of the bank lending survey need to reflect broadly the situation in the euro area as a whole.

As a consequence, the sample group for the bank lending survey reflects pragmatic considerations, rather than a more sophisticated sampling theory. The banking structures across individual countries in the euro area differ greatly. In some countries, the market is dominated by just one bank or a handful of banks, whereas in others there are hundreds, and in some cases even thousands, of banks. Furthermore, it was also deemed useful to produce survey results at a national level. Against this background, two steps were envisaged: first, the NCBs selected their national samples, and second, the national results were adjusted to obtain the euro area results. The sample group consists of various types of banks that are deemed representative of their national banking systems by the NCBs. For example, certain savings banks are included in a number of countries. To protect the confidentiality of the banks participating in the survey, more detailed information about the sample group's characteristics cannot be provided. Since the start of the survey in 2003, the sample group has consisted of 86 banks and covers approximately 40 percent of euro area bank lending. The coverage is greater than that of the US survey, but less than that of the Japanese survey. The distribution across countries in the euro area is shown in Table 2. While the distribution in some cases is somewhat different from the share of lending, the ranking of countries is more or less similar for the lending share and for the share of the sample.

¹³ In some of the questions, an additional column "NA" (not applicable) has been added, which respondents can tick if they do not know whether a specific factor contributed to changes in credit standards (questions 2, 9 and 10) or in demand for loans or credit lines (questions 5, 14 and 15), and whether specific conditions and terms changed (questions 3, 11 and 12). There is an important difference between using the "NA" option and the "unchanged" option. The "unchanged" option implies that a bank believes that a particular factor, say costs related to the bank's capital position, has contributed to basically unchanged credit standards. The "NA" option, on the other hand, implies that the bank does not know what impact this may have had. The purpose of the "NA" factor is therefore to avoid distorting the distribution of answers.

Table 2 The distribution of banks across countries in the sample group

BE	DE	GR	ES	FR	IE	IT	LU	NL	AT	PT	FI	Total
4	17	3	10	15	5	7	5	6	5	5	4	86

Source: ECB.

The sample group of banks participating in the survey is subject to adjustments either related to changes in the credit markets or to the characteristics of the individual commercial banks, e.g. in the case of mergers or takeovers. The sample group is also conditioned by the need to maintain a certain degree of representation with regard to bank lending markets and lending categories at the euro area level. The Eurosystem monitors developments in the national banking sectors and credit markets in order to identify changes which may necessitate an appropriate adjustment of the sample group of banks.

4.3 THE METHOD OF AGGREGATION

As noted above, since the choice of the sample groups for each country gives rise to some differences between the share of a country in the sample and the share of the country in bank lending, country weights are used to aggregate the national results at the euro area level. These weights are the shares of the total lending aggregates for each country in the total lending aggregate for the euro area. More specifically, they are derived from the total amount outstanding of euro area lending to euro area residents in each quarter, taking into account only the market segments considered in the

survey (i.e. loans to enterprises (non-financial corporations), consumer credit, lending to households for house purchase and other lending to households). This method ensures an appropriate statistical representation, given the heterogeneous characteristics of the national banking systems and national sample groups. Table 3 reports the country weights used to calculate the euro area results of the bank lending survey in the first quarter of 2004. Since the beginning of the survey, the country weights have varied slightly across countries, reflecting both structural and cyclical changes.

Weighting is not applied at the national level, as the national sample groups are sufficiently representative, and also because the survey is a qualitative exercise, whereby smaller banks are representative of a much larger group of similar banks.

The responses by individual banks to the survey can in some instances contain information that the bank in question would not like the public to have access to. The confidentiality of individual responses is therefore an important aspect that in turn also contributes to the high quality of responses to the survey. The Eurosystem has therefore put considerable emphasis on protecting the confidentiality of individual responses.

Table 3 Country weights

Country weights at	BE	DE	GR	ES	FR	IE	IT	LU	NL	AT	PT	FI	Total
2002 Q4	2.9%	35.9%	1.3%	11.1%	17.4%	1.8%	13.2%	1.0%	8.4%	3.1%	2.6%	1.3%	100.0%
2004 Q2	2.8%	33.1%	1.6%	12.9%	17.2%	2.3%	13.7%	0.9%	8.6%	3.0%	2.6%	1.4%	100.0%

Source: ECB.

The confidentiality of the results has been protected in a manner that allows maximum possible access to the results of the survey both within and outside the Eurosystem, without however ever compromising the confidentiality of the individual responses.

4.4 THE COMPILATION GUIDE

The questionnaire is accompanied by a short compilation guide (see Annex 2). The purpose of the latter is to help individual respondents by providing basic information on how to fill out the survey. The compilation guide states the purpose of the survey and summarises its structure. It is deliberately kept short, reflecting the spirit of the survey (i.e. that it is not intended to be a precise statistical exercise). The compilation guide also states the intended respondent. This is a senior loan officer, e.g. the chairman of the credit committee at or just below Board level.

Additionally, the compilation guide specifies that the time horizon in the backward-looking questions is three months, which is in principle also the case in the forward-looking questions. However, given the different time horizons used in the formulation of credit policies and expectations regarding credit demand, the questionnaire recognises that the forward-looking horizon is more flexible. It should be noted that the questions are formulated in terms of changes occurring between the end of the last month of the quarter three months earlier and the end of the quarter that has finished or is about to finish. Thus, in principle the answers should reflect the situation at the end of the quarter, rather than the average change over the quarter.

The compilation guide includes a short explanation of 17 of the possibly more complex terms used in the questionnaire. However, the guide again emphasises that these definitions purely aim at providing general guidance. Respondents should be able to answer the

questionnaire without a detailed knowledge of statistical terms, and should not have to resort to statistical information sources to reply to the questions.

4.5 THE PRESENTATION OF THE DATA

The ECB has published the results of the bank lending survey ever since the second survey in April 2003. The publication of results reflects the fact that the survey represents a major data-gathering exercise of the Eurosystem which yields important statistics on credit conditions in the euro area.

The results of the bank lending survey are published in two different formats in the second month of every quarter. The Monthly Bulletin contains a summary of the results; the more detailed results are attached to a press release and can be accessed on the ECB's website. Some NCBs also publish national results of the bank lending survey after the ECB has published the euro area results.

Since the beginning of the survey, the overall response rate to the survey has been very high, ranging from 95% to 100%. This ensures a very acceptable degree of representativeness. The number of banks responding to a specific question can however differ depending on the type of the question, reflecting the fact that some banks only operate in certain segments, and therefore only answer questions related to those segments.

4.6 HOW TO READ THE RESULTS OF THE BANK LENDING SURVEY

The detailed results of the bank lending survey that are published by the ECB include the percentage distribution of the weighted answers to the questionnaire for all the banks responding, the net percentage and the number of banks responding. The net percentage for changes in credit standards is calculated as

the difference between the percentage of respondents answering that they tightened considerably or somewhat, minus the percentages responding that they eased considerably or somewhat. Thus, in the reported tables, positive figures indicate a net tightening and negative figures a net easing of credit standards. Similarly, the net percentages for the questions on demand for loans are defined as the difference between the percentage of respondents answering that the demand for loans has increased considerably or somewhat, minus the percentage responding that demand has decreased somewhat or considerably. Thus, positive figures indicate a net increase in demand for loans, while negative figures reflect a net decrease in demand for loans. As a consequence, there is no distinction in this calculation as to the degree of tightening/easing of credit standards or any increase/decrease in demand in the replies.

5 THE FIRST RESULTS OF THE EURO AREA BANK LENDING SURVEY

The main objective of the bank lending survey is to enhance knowledge of the role of developments in banks' lending policies in the monetary transmission process. In this respect, the qualitative results obtained from the bank lending survey should enable monetary policy-makers to assess credit developments more accurately and should represent an additional source of information in the monetary policy-making process.

This chapter presents the results of the first eight rounds of the euro area bank lending survey and compares them with information collected from other sources. The final subsection concludes.

5.1 THE RESULTS OF THE BANK LENDING SURVEY

This section focuses on the results of the euro area bank lending survey conducted from January 2003 until October 2004.¹⁴ First of all, a general overview of changes in credit

standards and loan demand for both enterprises and households is presented. The reasons for these changes are then described in more detail. The section also provides an overview of the factors affecting demand.

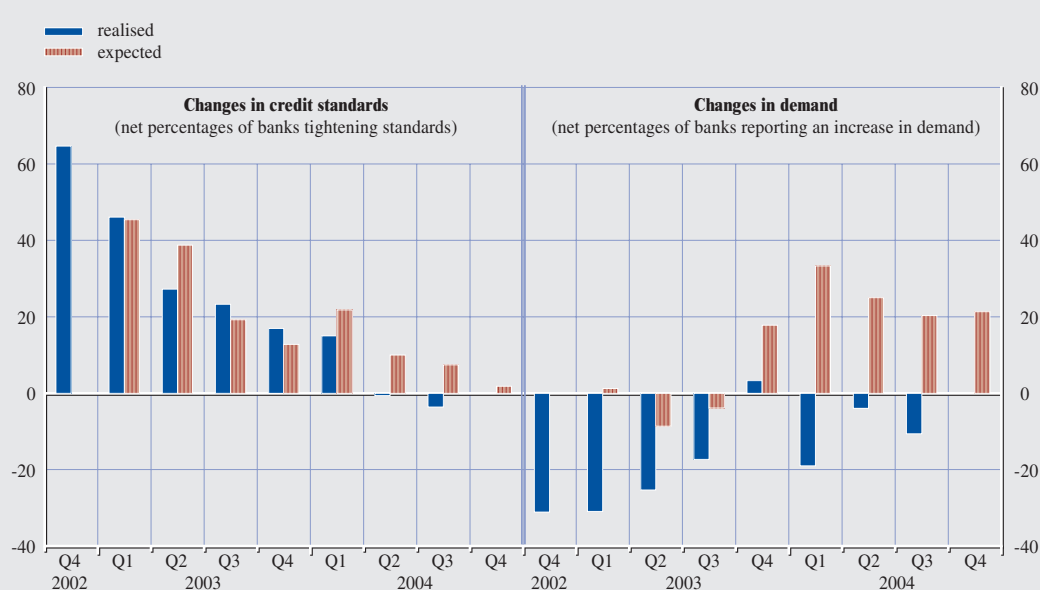
5.1.1 ENTERPRISES

In the first six survey rounds, banks tightened their credit standards applied to the approval of loans to enterprises, but with declining net percentages (see Chart 1). For the last two available quarters, banks reported a slight net easing of credit standards. Banks were also asked about their expectations regarding the development of credit standards, which have generally been in line with the actual outcomes.

Chart 1 shows that the net tightening of credit standards generally moved opposite to changes

¹⁴ Because the survey questions are phrased in terms of changes over the past three months or expectations of changes over the next three months, the illustrative analysis will consider a time span that ranges from the fourth quarter of 2002 to, where appropriate, the fourth quarter of 2004.

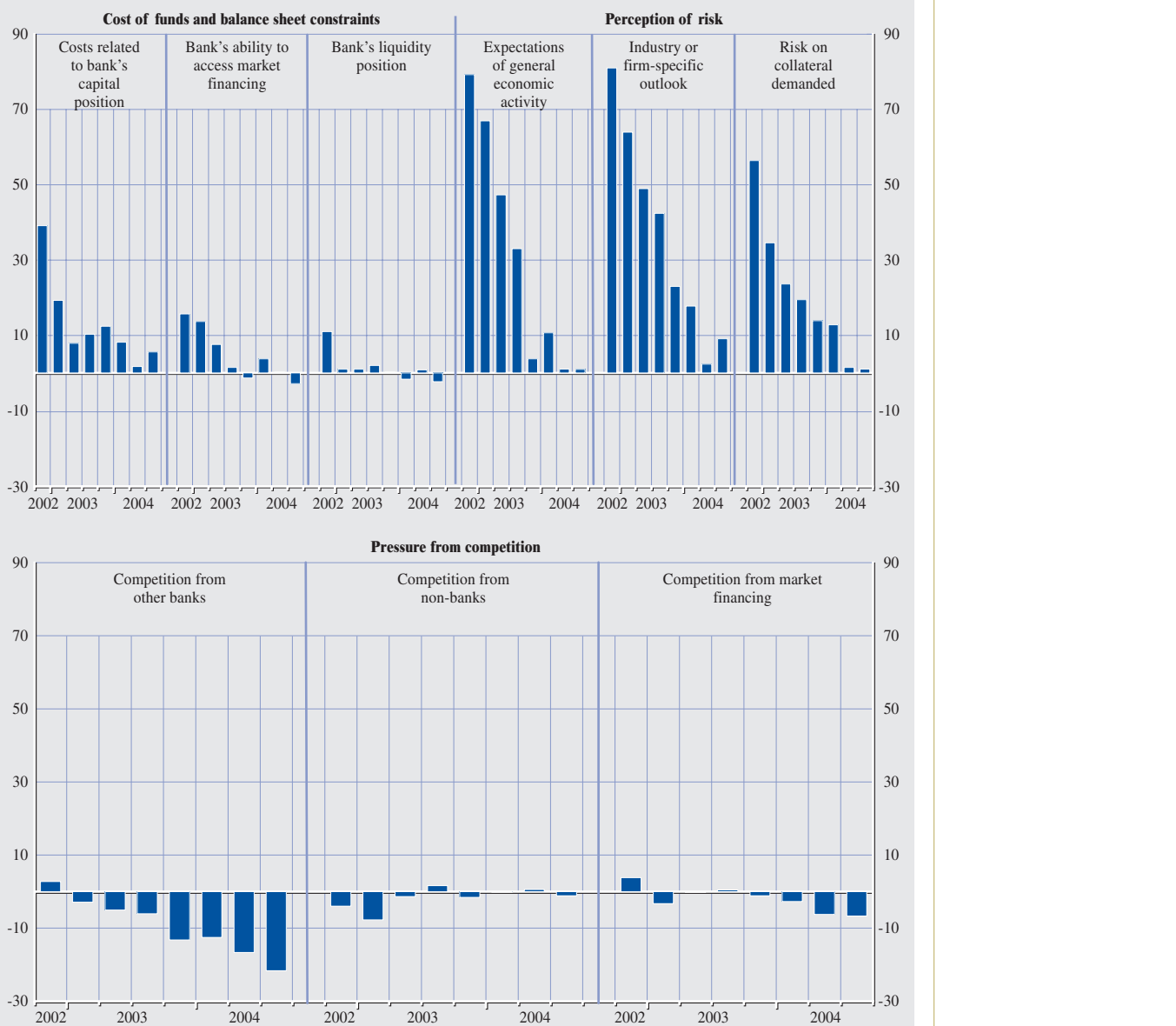
Chart 1 Credit standards and demand for loans or credit lines to enterprises



Note: "Realised" values refer to the period in which the survey was conducted. "Expected" values are the net percentages calculated from the responses given by the banks in the previous survey. For instance, "expected" values for the fourth quarter of 2004 were reported by banks in the October 2004 survey.

Chart 2 Factors affecting credit standards for loans to enterprises

(net percentage of banks contributing to tightening)



Source: ECB.

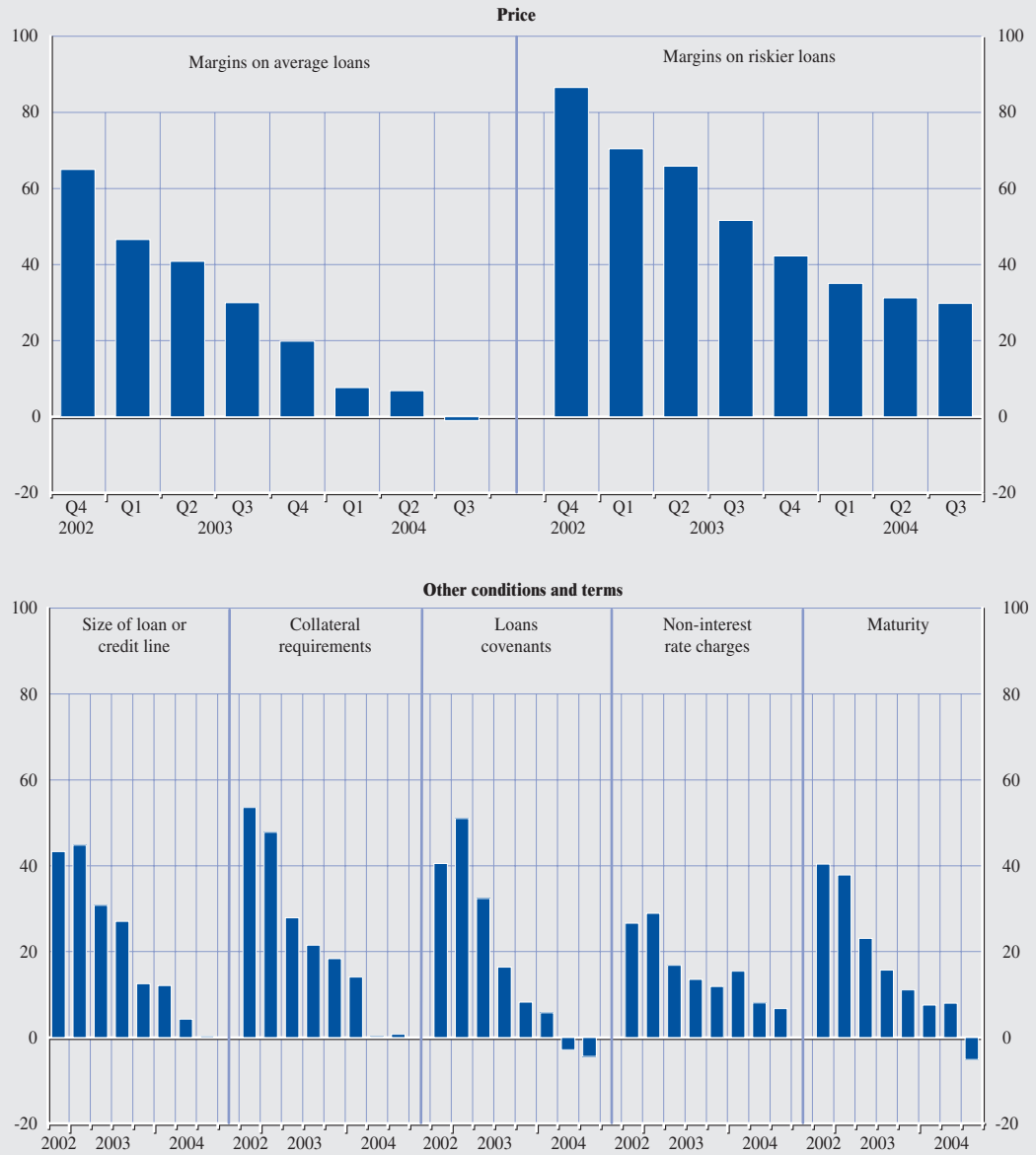
Note: The net percentage is defined as the difference between the sum of "contributed considerably to tightening" and "contributed somewhat to tightening" and the sum of "contributed somewhat to easing" and "contributed considerably to easing".

in the net percentages of banks reporting an increase in the demand for loans to enterprises. The results of the first four surveys indicate that the net tightening of credit standards was accompanied by a reported net decrease in demand for loans (i.e. a negative value for the

net percentage of banks reporting an increase in loan demand). Furthermore, the declining net percentages of banks tightening credit standards were reflected in the declining net percentages of banks reporting a decrease in loan demand for the first four surveys, and a

Chart 3 Conditions and terms for approving loans or credit lines to enterprises

(net percentage of banks reporting tightening standards)



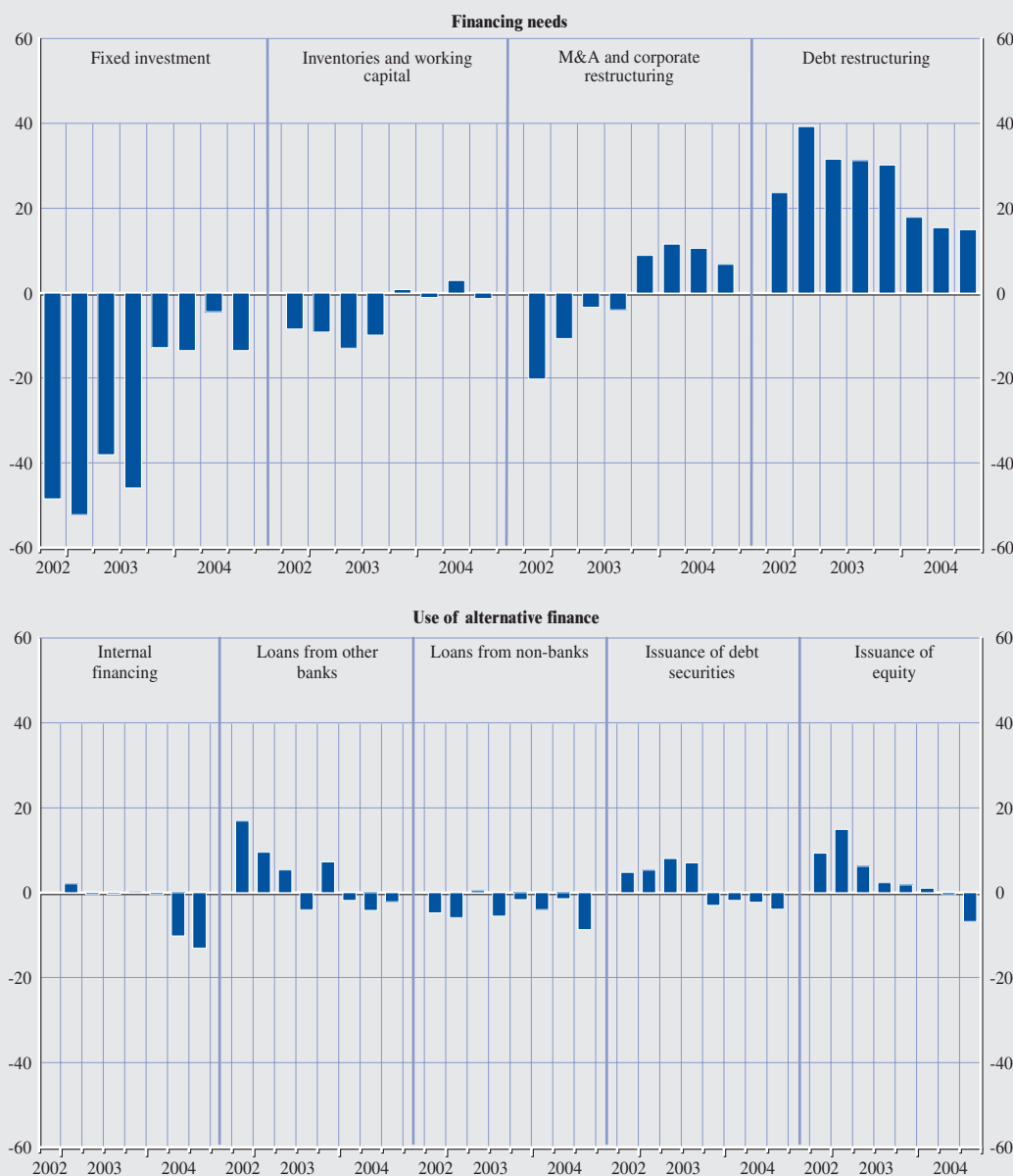
Note: The net percentage is defined as the difference between the sum of “tightened considerably” and “tightened somewhat” and the sum of “eased somewhat” and “eased considerably”.

reported net increase in loan demand in the fourth quarter of 2003. Since the first quarter of 2004, this relationship has become somewhat more ambivalent: although banks reported a continuous decrease in the net tightening of credit standards, culminating in a net easing in

the last two quarters of 2004, loan demand (on a net basis) did not structurally improve, according to the banks (see the right panel of Chart 1).

Chart 4 Factors affecting demand for loans and credit lines to enterprises

(net percentages of banks reporting an increase in demand)



Note: The net percentage is defined as the difference between the sum of “contributed considerably to higher demand” and “contributed somewhat to higher demand” and the sum of “contributed somewhat to lower demand” and “contributed considerably to lower demand”.

Considering the reasons behind the tightening of credit standards, Chart 2 shows the factors affecting credit standards for approving loans or credit lines to enterprises.

Since the beginning of the survey, the three most important factors reported by banks when explaining credit standard developments were those related to the perception of risk: “expectations regarding general economic

activity”, “industry or firm-specific outlook” and “risk on collateral demanded”. The last two factors in particular explain the developments in the net tightening and net easing of credit standards reported in the eight rounds of the survey. For the last two available quarters, the factor that contributed the most to the net easing of credit standards was pressure from competition, particularly “competition from other banks” and “competition from market financing”.

In terms of how credit standards were tightened, this mostly took place through the setting of price conditions (i.e. particularly in the form of “margins on riskier loans”). Basically all conditions and terms were continuously tightened to a lesser extent or even eased during the eight rounds of the survey (see Chart 3).

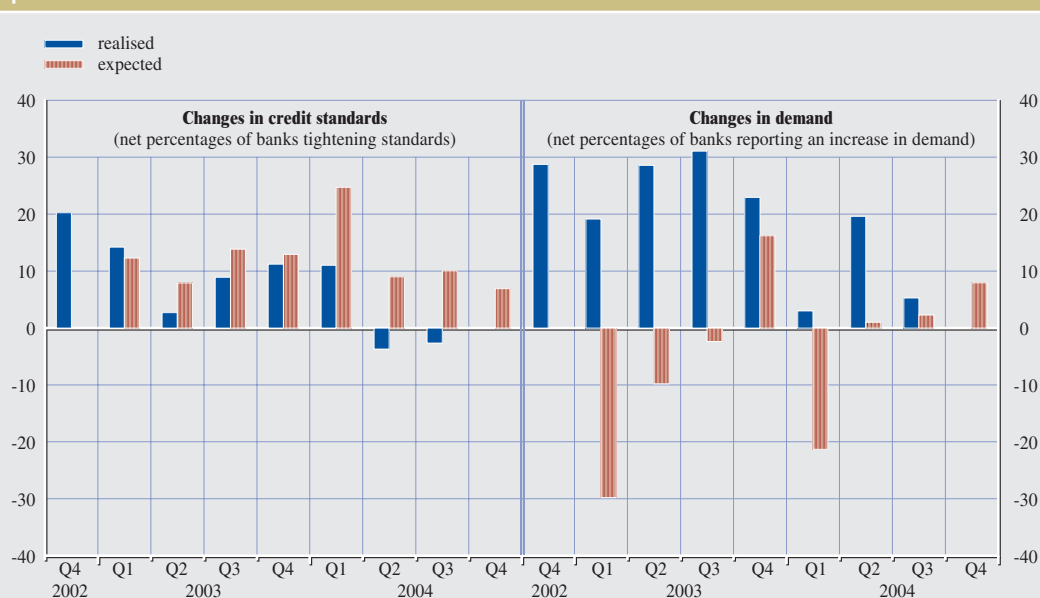
Turning to loan demand from enterprises, a large number of factors contributed to the overall development of the results of the first eight rounds of the survey (see Chart 4). For

example, “debt restructuring” has so far always been reported as the factor contributing the most frequently to the overall net increase in loan demand. Others, such as “fixed investment”, were also always seen as contributing to lower demand, although in the second quarter of 2004 a substantial improvement was reported. Financing needs related to “M&A and corporate restructuring” showed a positive trend, resulting in the January 2004 survey citing for the first time this factor as having contributed to an increase in loan demand. Since then, financing needs related to M&A activity have always positively supported loan demand. Conversely, in the most recent available quarters the increase in the use of internal financing as a source of funds for enterprises has considerably contributed to lower demand for bank loans.

5.1.2 LOANS FOR HOUSE PURCHASE

After having declined for the first three survey rounds, the net percentage of banks reporting a net tightening of credit standards applied to the

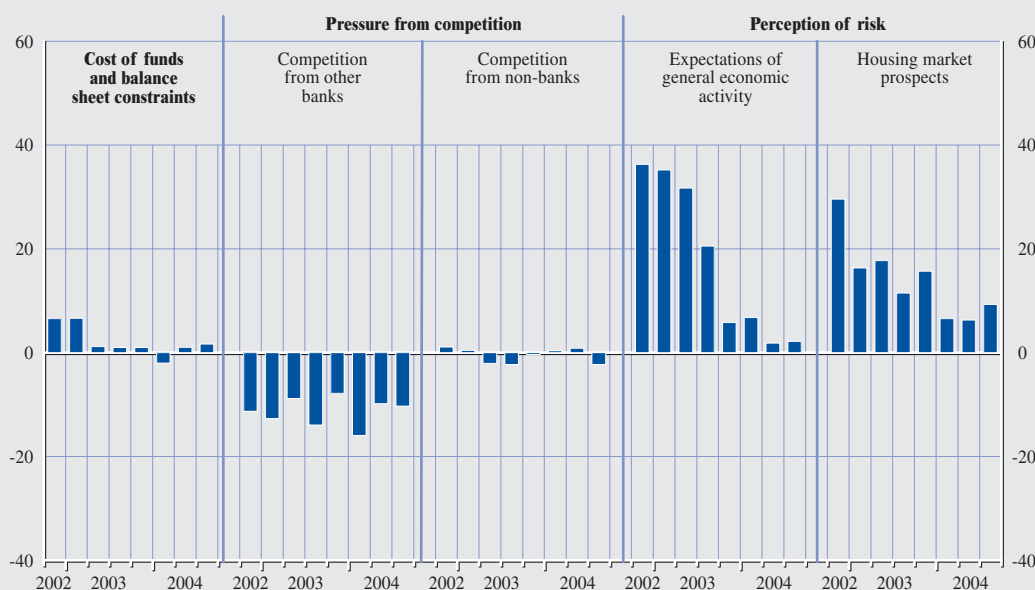
Chart 5 Credit standards and demand for loans or credit lines to households for house purchase



Note: “Realised” values refer to the period in which the survey was conducted. “Expected” values are the net percentages calculated from the responses given by the banks in the previous survey. For instance, “expected” values for the fourth quarter of 2003 were reported by banks in the October 2003 survey.

Chart 6 Factors affecting credit standards applied to the approval of loans to households for house purchase

(net percentage of banks contributing to tightening)



Note: The net percentage is defined as the difference between the sum of “contributed considerably to tightening” and “contributed somewhat to tightening” and the sum of “contributed somewhat to easing” and “contributed considerably to easing”.

approval of loans for house purchase slightly increased in both the October 2003 and the January 2004 surveys, before stabilising in the April 2004 survey. In the last two quarters of 2004, this trend reversed and, for the first time since the survey began, banks reported an easing of credit standards (see Chart 5). This change in the application of credit standards was not reflected on the demand side, where banks have always reported, although at different levels, an increase in the demand for loans to households. Unfortunately, survey respondents have not been very successful in predicting developments: in five survey rounds out of eight, banks actually expected a decrease in the demand for loans for house purchase by households.

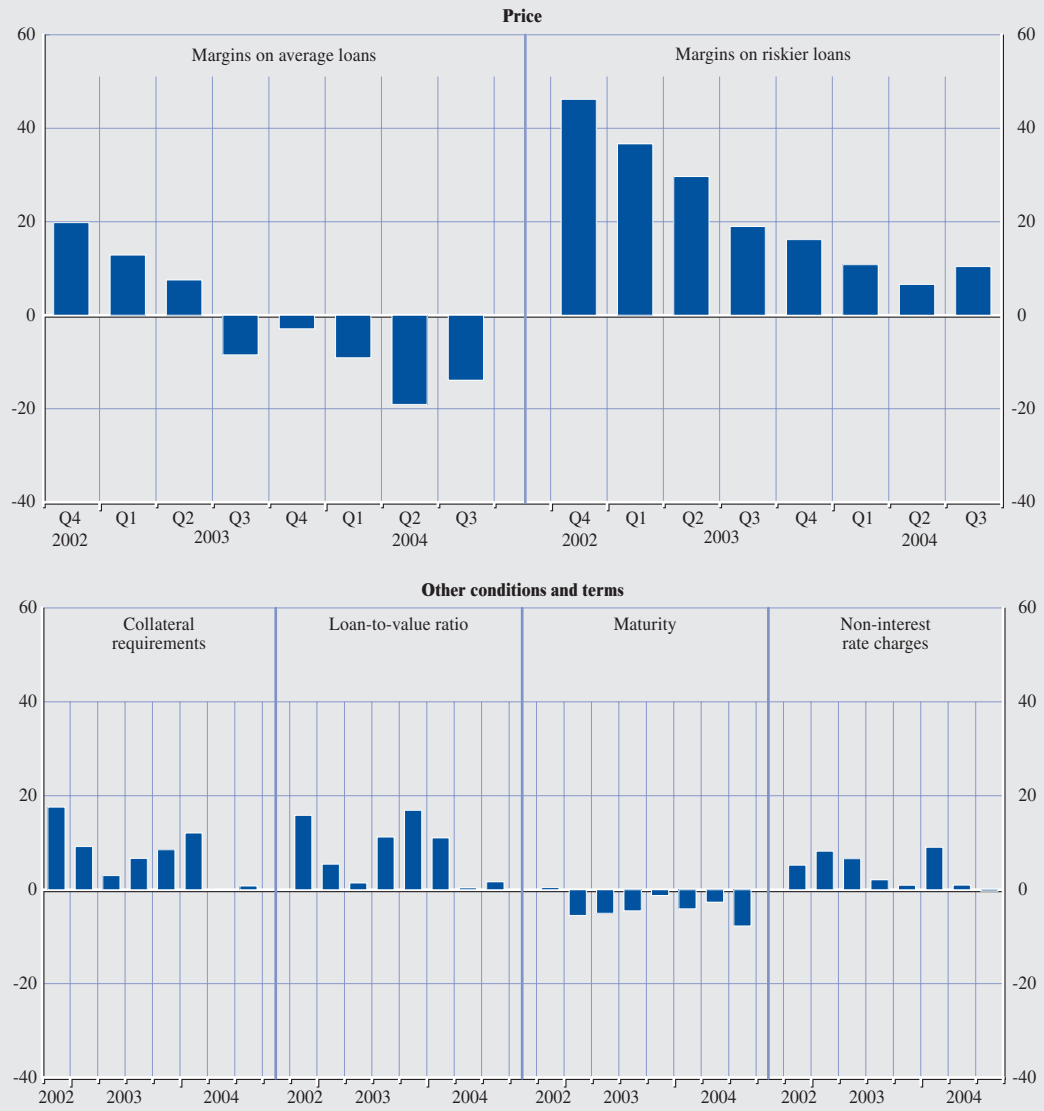
Turning to the factors related to the net tightening of credit standards, a very similar picture to what has been observed for loans and credit lines to enterprises emerges. Tightening was mostly explained by the perception of risk (both related to “general economic activity”,

and specifically to “housing market prospects”), whereas pressure from other competitors generally contributed to easing credit standards (see Chart 6). For example, in the October 2004 survey round, the reported net easing of credit standards reflects opposing effects, with higher risk perceptions related to the housing market on the one hand, set against clear improvements with respect to pressure from competition on the other.

With regard to conditions and terms for approving loans to households for house purchase, changes in the lending policies of banks mainly occurred through price conditions (see Chart 7).

Chart 7 Conditions and terms for approving loans to households for house purchase

(net percentages of banks reporting tightening standards)



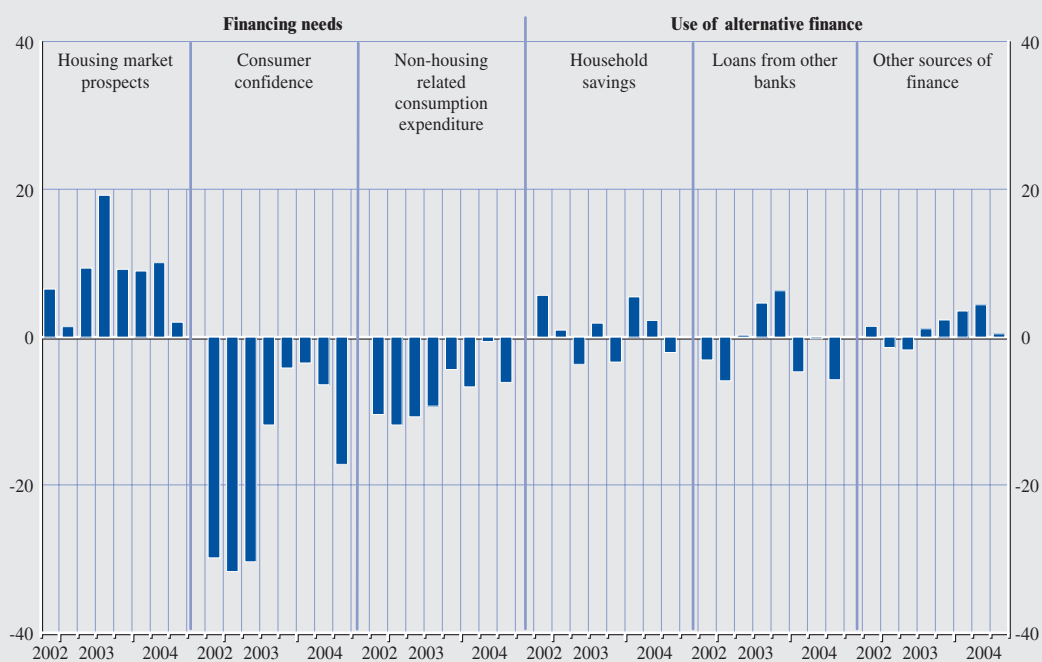
Note: The net percentage is defined as the difference between the sum of “tightened considerably” and “tightened somewhat” and the sum of “eased somewhat” and “eased considerably”.

Regarding the factors reported in explanation for the development of loan demand for house purchase, “housing market prospects” has always contributed, although at different levels, to an increase in demand. In contrast,

“consumer confidence” and “non-housing related consumption expenditure” contributed in all survey rounds to a net decrease in demand (see Chart 8).

Chart 8 Factors affecting demand for loans to households for house purchase

(net percentages of banks reporting an increase in demand)



Note: The net percentage is defined as the difference between the sum of “contributed considerably to higher demand” and “contributed somewhat to higher demand” and the sum of “contributed somewhat to lower demand” and “contributed considerably to lower demand”.

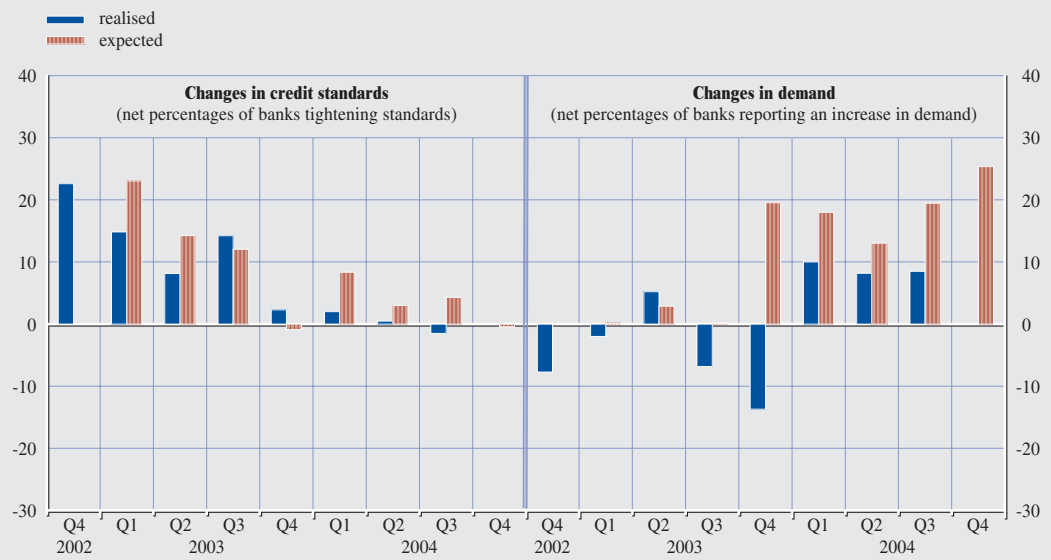
5.1.3 LOANS FOR CONSUMER CREDIT

The results for loans for consumer credit, which constitute the other main part of the market for loans to households, do not show a specific pattern over time. For example, the last quarter of 2003 recorded a significant drop in the net percentage of banks tightening their credit standards (see Chart 9). This had already been anticipated in October 2003, when banks even expected an overall net easing of credit standards for the last quarter of 2003.

Demand for consumer credit has also fluctuated, but in a manner sometimes not directly related to credit standards: a lesser degree of net tightening did not always translate into a net increase in demand. At the same time, especially in 2004, banks have been more optimistic in their expectations about future developments in loan demand.

Unfortunately, the reality has not always lived up to expectations, although for the most recent available quarters, banks seem to have more successfully predicted at least the trend of loan demand, if not the correct levels.

Chart 9 Credit standards and demand for loans or credit lines to households for consumer credit

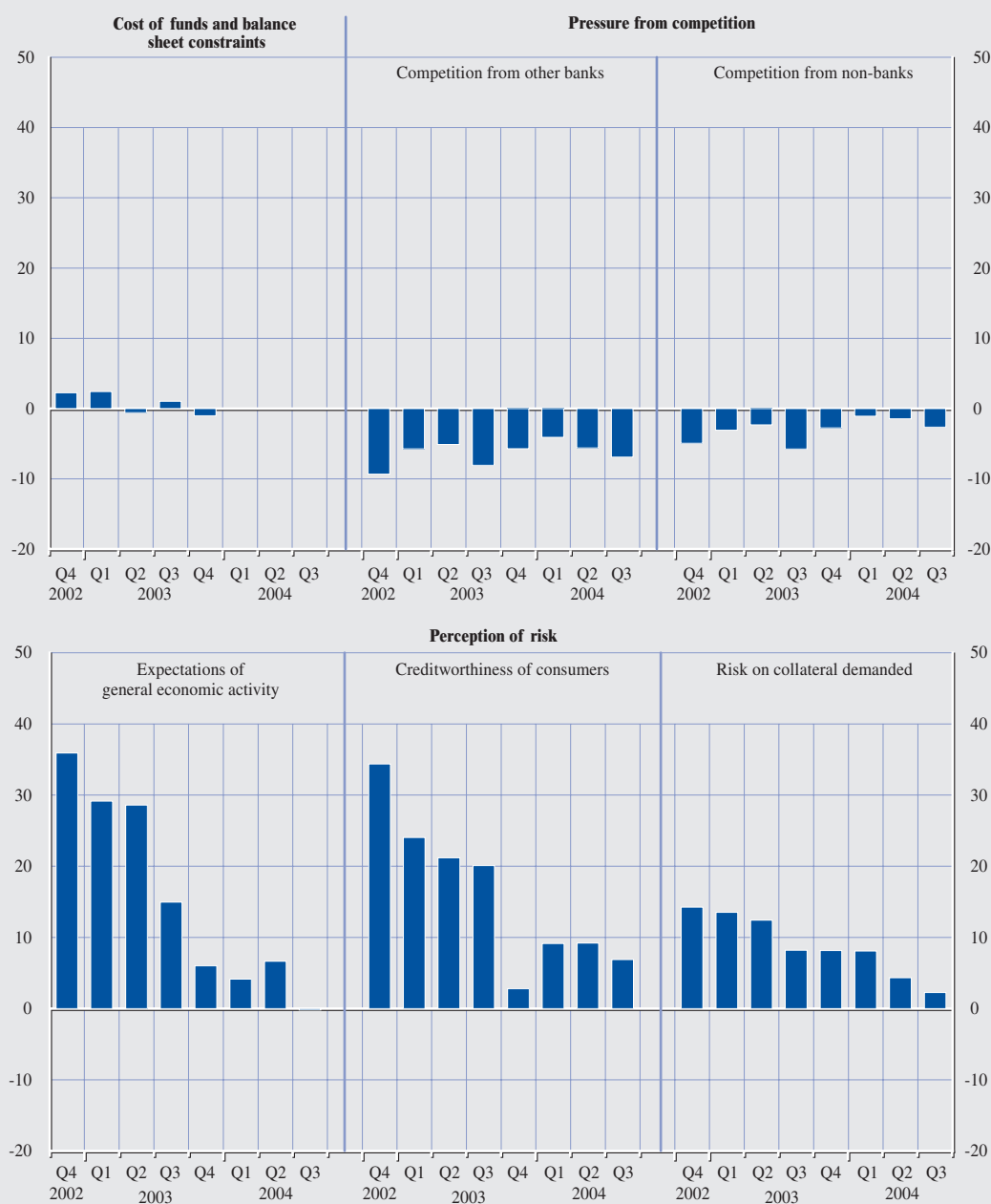


Note: "Realised" values refer to the period in which the survey was conducted. "Expected" values are the net percentages calculated from the responses given by the banks in the previous survey. For instance, "expected" values for the fourth quarter of 2004 were reported by banks in the October 2004 survey.

In all survey rounds, factors related to risk perceptions mostly explained the trend reported of a net tightening of credit standards for consumer credit (see Chart 10). On the other hand, competition from other banks and other financial institutions always played a minor counterbalancing effect in easing (on a net basis) credit standards.

Chart 10 Factors affecting credit standards applied to the approval of loans to households for consumer credit

(net percentages of banks reporting tightening standards)



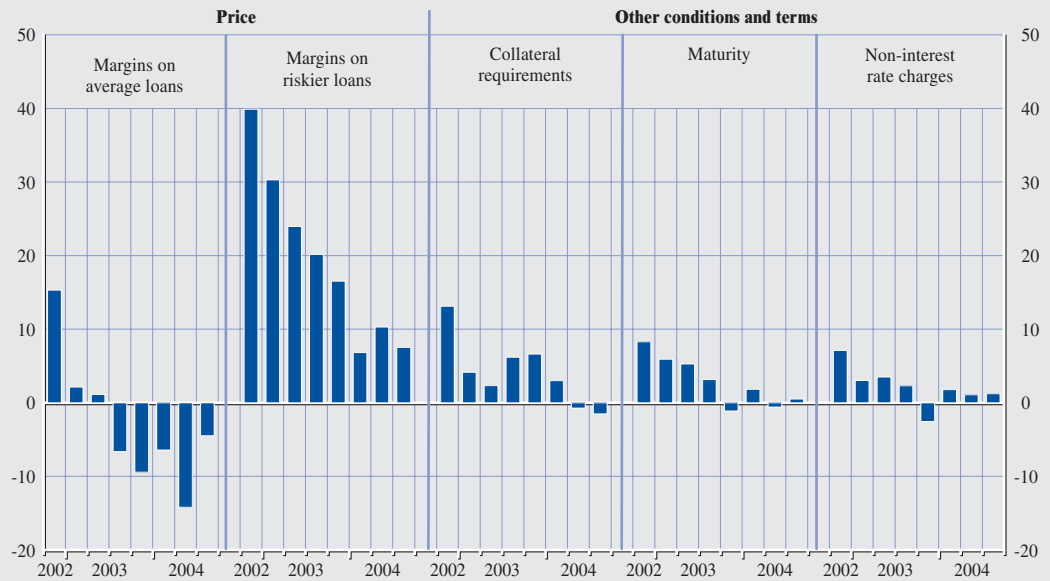
Note: The net percentage is defined as the difference between the sum of “contributed considerably to tightening” and “contributed somewhat to tightening” and the sum of “contributed somewhat to easing” and “contributed considerably to easing”.

As was the case with loans to households for house purchase, the tightening of conditions and terms for approving loans to households for consumer credit mostly took place through a widening of margins, particularly the margins

on riskier loans. However, in the last five survey rounds, margins on average loans were reported as contributing to easing credit standards (see Chart 11).

Chart 11 Conditions and terms for approving loans to households for consumer credit

(net percentages of banks reporting tightening standards)

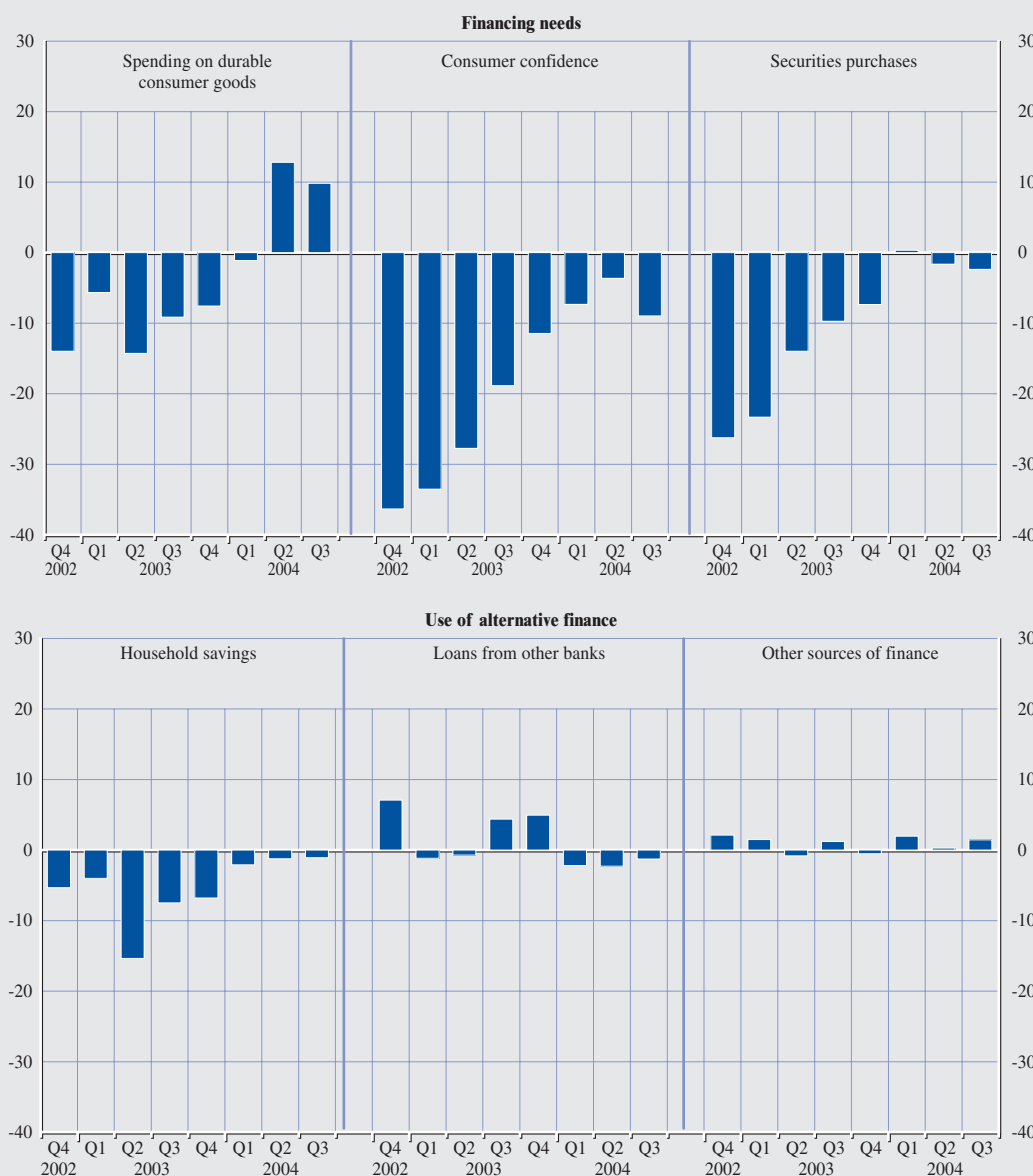


Note: The net percentage is defined as the difference between the sum of “tightened considerably” and “tightened somewhat” and the sum of “eased somewhat” and “eased considerably”.

Turning to the demand for consumer credit, and in particular looking at the forces driving its movement, it appears that over the observed period, the use of alternative finance did not have a significant impact on the overall development of this credit component (see Chart 12). On the contrary, factors related to financing needs generally contributed to a net decrease in demand. The only exception is “spending on durable consumer goods”, which contributed to lower demand for consumer credit during the first six survey rounds, but then became a factor contributing to an increase in demand in the last two. The percentages of factors contributing to developments in demand for consumer credit vary considerably: for example, although consumer confidence contributed to a decrease in demand for all available survey cycles, the size of this contribution has fallen considerably over time.

Chart 12 Factors affecting demand for loans to households for consumer credit

(net percentages of banks reporting an increase in demand)



Note: The net percentage is defined as the difference between the sum of “contributed considerably to higher demand” and “contributed somewhat to higher demand” and the sum of “contributed somewhat to lower demand” and “contributed considerably to lower demand”.

5.2 RELATIONSHIP WITH OTHER INDICATORS

The value added of the bank lending survey is that it provides “qualitative” information that is directly derived from the lenders themselves. Moreover, these data allow us to consider

supply and demand-side factors of loan developments separately. This is particularly useful, as other sources of information tend to be of a quantitative nature and often represent the interaction of both supply and demand factors.

Following the structure of the bank lending survey, this section compares some of the reported variables in the survey (credit standards, factors and conditions affecting standards and factors affecting demand) with information from other sources (e.g. loan growth, corporate spreads, industrial and consumer confidence, etc.).

The purpose of this analysis is twofold. First, it seeks to assess the quality of the bank lending survey data by comparing them with other available statistics. Second, it attempts to investigate the information content of credit standards in relation to other economic and financial variables. However, because of the low number of observations available, it is too early to draw any firm conclusions about the leading or lagging properties between the variables.

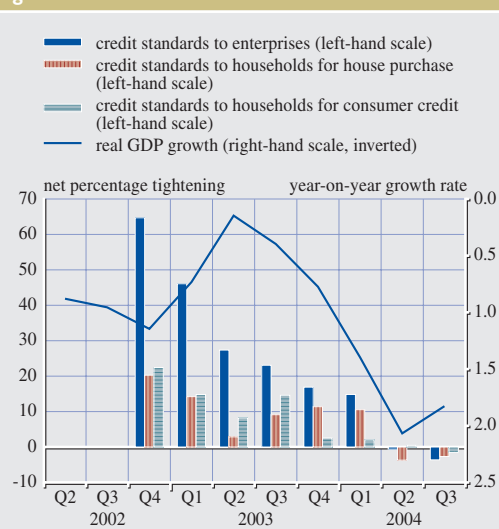
5.2.1 CREDIT STANDARDS AND REAL GDP GROWTH

Credit standards, among other factors, may be linked to economic activity, given that to the extent that credit availability depends on lenders' standards, a tightening of standards should cause a decline in spending by firms that depend on banks for credit. To support this view, researchers at the US Federal Reserve have shown that there is a strong correlation between loan officers' reports of tighter credit standards and slowdowns in output.¹⁵ Moreover, using the VAR methodology, they show that changes in credit standards lead to changes in output and bank loans.

At the euro area level, it is not yet possible to make similar analyses because the number of observations currently available is still low. Nevertheless, Chart 13 presents developments in real activity alongside those in credit standards.

As already indicated, given the small number of observations and, in particular, the absence of turning points in both series, it is not yet possible to draw any firm conclusions.

Chart 13 Comparison of bank lending survey (BLS) data on credit standards and real GDP growth



Source: ECB.
Note: For credit standards, the net percentage is defined as the difference between the sum of "contributed considerably to tightening" and "contributed somewhat to tightening" and the sum of "contributed somewhat to easing" and "contributed considerably to easing".

Nonetheless, it can be argued that the progressive easing of credit standards observed between the fourth quarter of 2002 and the third quarter of 2004 appears to lead the upswing in activity observed between the second quarter of 2003 and the second quarter of 2004. However, this analysis remains tentative, particularly as one must bear in mind the fact that many factors may impact on economic activity, including interest rates, exchange rates and consumer and business confidence. Furthermore, some of these factors may impact on both activity and credit standards as applied by loan officers.

However, even if this is the case, information on credit standards may still provide some useful insights as such information is available on a timelier basis than quantitative information on economic activity.

¹⁵ See Chapter 2, in particular Lown et al. (2000).

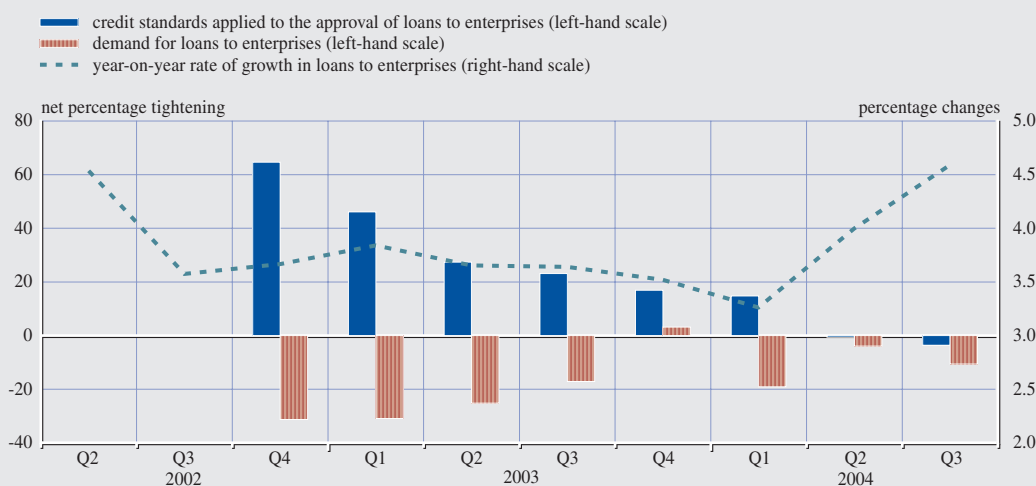
5.2.2 CREDIT STANDARDS AND MFI LOAN GROWTH

One aim of the survey is to complement existing sources of information on credit developments. In the United States, Lown and Morgan (2002 and 2004) show that a high net

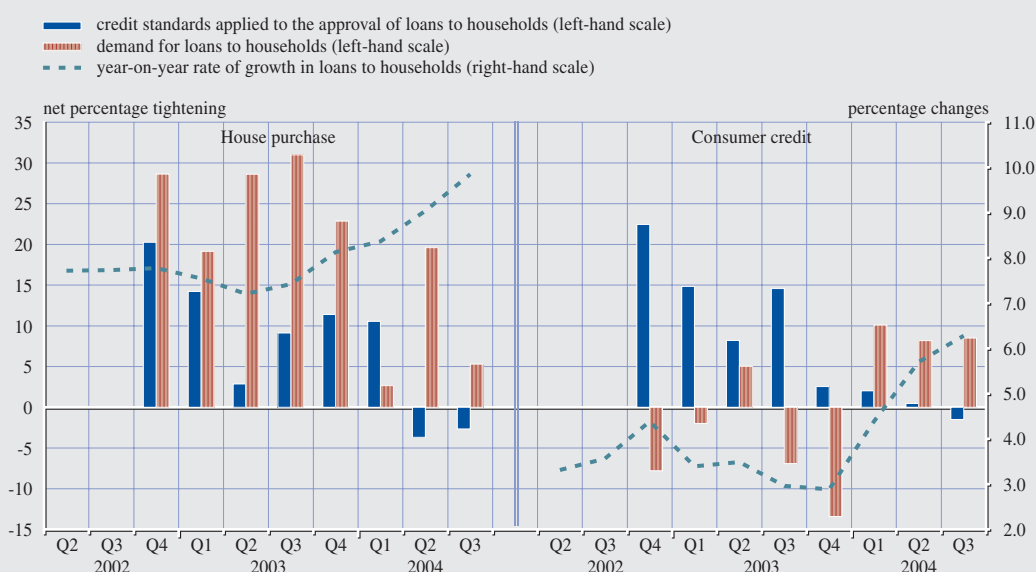
percentage of tightening is typically associated with low (if not negative) credit growth. The results of the bank lending survey suggest that for the euro area this relationship is not always apparent. For instance, the declining net tightening of credit standards applied to loans to enterprises over the first six survey rounds

Chart 14 Comparison of BLS data on credit standards and MFI loan growth

a) enterprises



b) households



Source: ECB.

Notes: For credit standards, the net percentage is defined as the difference between the sum of “contributed considerably to tightening” and “contributed somewhat to tightening”, and the sum of “contributed somewhat to easing” and “contributed considerably to easing”. For demand, the net percentage is defined as the difference between the sum of “contributed considerably to higher demand” and “contributed somewhat to higher demand” and the sum of “contributed somewhat to lower demand” and “contributed considerably to lower demand”.

has not been associated with an increase in loan growth (see Chart 14a). Only in the last two available quarters, when banks eased standards, was a slight pick-up in loan growth recorded. A very similar picture emerges when looking at the household sector (see Chart 14b). However, this may be related to the aforementioned difficulty of studying the lagged impact of changes in credit standards on loan developments. The demand for loans as reported by survey respondents is also presented in Chart 14, as this represents another factor that helps to determine the actual development of loan growth. The chart shows that the reported net percentages of demand for loans are difficult to reconcile consistently with actual loan growth, especially in the case of enterprises.

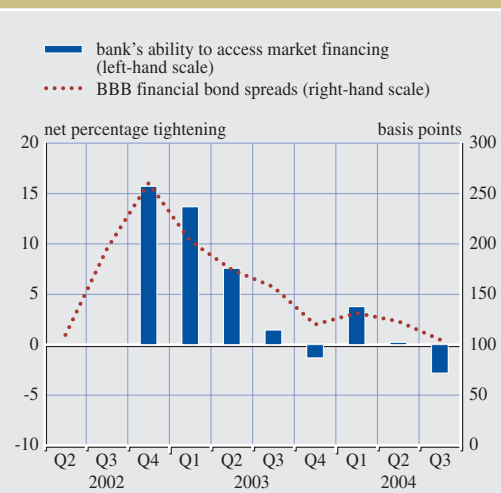
5.2.3 FACTORS AFFECTING CREDIT STANDARDS AND FINANCIAL SPREADS

Turning to the factors affecting credit standards, Chart 15 shows that the improved ability of banks to access market financing contributed to a general decline in the net tightening of credit standards and even contributed to an easing of credit standards. As the same chart reveals, this trend is confirmed by the initial increase and subsequent decline in the spread of BBB-rated bonds issued by banks in the capital markets, which may indeed be interpreted as an improvement in banks' access to market financing.¹⁶

5.2.4 FACTORS AFFECTING CREDIT STANDARDS AND INDUSTRIAL CONFIDENCE

Another reason reported for the tightening of credit standards is the risk perception related to the industry or firm-specific outlook. Chart 16 compares the significant drop in the net percentage tightening of credit standards applied to loans or credit lines to enterprises with the industrial confidence indicator as reported by the European Commission's Business and Consumer Surveys.¹⁷ Since the second quarter of 2003, the industrial confidence indicator has become less negative

Chart 15 Comparison of BLS data and BBB financial spreads



Sources: ECB and Datastream.

Note: The net percentage reported for banks' ability to access market financing is defined as the difference between the sum of "contributed considerably to tightening" and "contributed somewhat to tightening" and the sum of "contributed somewhat to easing" and "contributed considerably to easing".

and, at the same time, fewer banks reported this factor as contributing to a tightening of credit standards.

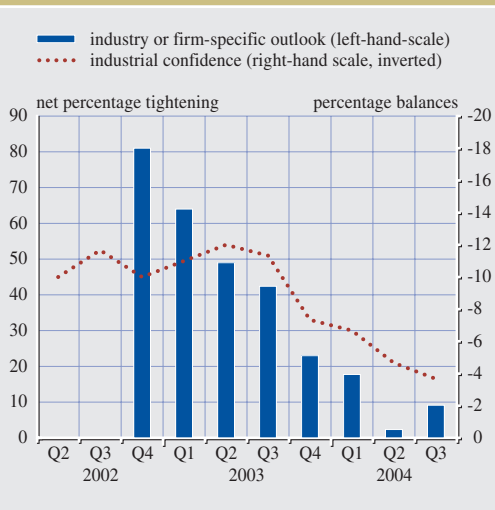
5.2.5 CONDITIONS AND TERMS FOR APPROVING LOANS AND CORPORATE BOND SPREADS

One of the conditions and terms that is affected by the reported tightening of credit standards for enterprises during the first six survey rounds is banks' margins on riskier loans. The declining net percentages reported for this factor suggest that banks perceived lower credit risk in loan markets. This is in line with the information provided by corporate bonds and credit default swap spreads (see

16 According to Standard and Poor's, an obligation rated BBB exhibits adequate protection parameters. However, adverse economic conditions or changing circumstances are more likely to lead to weakened capacity on the part of the obligor to meet its financial commitment on the obligation.

17 The industrial confidence indicator is the average of balances of the answers to the questions on production expectations, order books and stocks of finished products. Balances are seasonally adjusted.

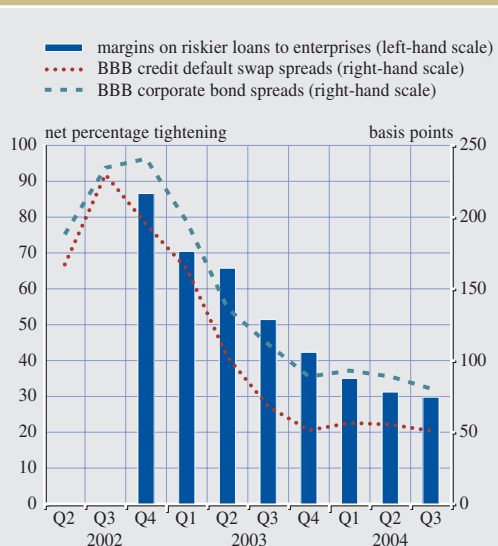
Chart 16 Comparison of BLS data and industrial confidence



Sources: ECB and European Commission Business and Consumer Surveys.

Note: The net percentage reported for the industry or firm-specific outlook is defined as the difference between the sum of “contributed considerably to tightening” and “contributed somewhat to tightening” and the sum of “contributed considerably to easing” and “contributed somewhat to easing”.

Chart 17 Comparison of BLS data and BBB corporate bond spreads



Sources: ECB, Datastream, Merrill Lynch and Credit Trade. Note: The net percentage reported for margins on riskier loans refers to the difference between the sum of the percentages for “tightened considerably” and “tightened somewhat” and the sum of the percentages for “eased somewhat” and “eased considerably”.

Chart 17).¹⁸ Both indicators tend to be relatively sensitive to changes in the perception of credit risk, and their low level in the course of 2004 suggests a fairly positive credit risk outlook.

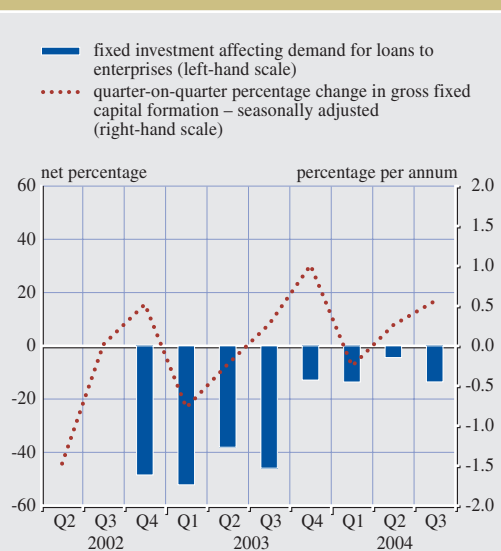
5.2.6 FACTORS AFFECTING LOAN DEMAND AND GROSS FIXED CAPITAL FORMATION

Turning to the demand side, the bank lending survey provides information on the reasons driving the demand for loans from both enterprises and households. Regarding demand for loans from enterprises, the survey results indicate that financing needs related to fixed investment have improved substantially since the first survey round, although they are still reported with negative percentages, indicating that fixed investment still contributes to a net decrease in demand for loans by enterprises. Chart 18 compares this information from the bank lending survey with the growth rate of the GDP component that is mostly related to investment, namely gross fixed capital formation.

For most reported survey rounds, a decline in the contribution of fixed investment to lower loan demand from enterprises is related to some extent to a positive increase in the quarter-on-quarter rate of growth in gross fixed capital formation.

18 A company’s credit default swap spread is the cost per annum for protection against a default by the company. Credit default spread indices have been found to be good indicators of credit risk. See for instance Hull et al. (2000).

Chart 18 Comparison of BLS data and gross fixed capital formation



Source: ECB.
 Note: The net percentage reported for fixed investment is defined as the difference between the sum of “contributed considerably to higher demand” and “contributed somewhat to higher demand” and the sum of “contributed somewhat to lower demand” and “contributed considerably to lower demand”.

5.2.7 FACTORS AFFECTING LOAN DEMAND AND CONSUMER CONFIDENCE

Looking at loan demand from households, one factor that has been mentioned as contributing to a slight net decrease in demand is consumer confidence. Chart 19 compares this factor with the consumer confidence indicator constructed and published by the European Commission.¹⁹

This chart shows that the drop in the consumer confidence indicator in 2002 was followed by a steady improvement in 2003. Although the net percentages are still negative, indicating that consumer confidence contributed to a net decrease in loan demand from households, the data obtained from the bank lending survey are in line with this upward trend.

¹⁹ The consumer confidence indicator is the average of balances of the answers to the questions on the financial situation of households, the general economic situation, unemployment expectations (with inverted sign) and savings, all over the next 12 months. Balances are seasonally adjusted.

Chart 19 Comparison of BLS data and consumer confidence



Sources: ECB and European Commission Business and Consumer Surveys.
 Note: The net percentage reported for consumer confidence is defined as the difference between the sum of “contributed considerably to higher demand” and “contributed somewhat to higher demand” and the sum of “contributed somewhat to lower demand” and “contributed considerably to lower demand”.

5.3 CONCLUSIONS

This chapter presented the first results of the bank lending survey for the euro area, which has been conducted since January 2003, and compared them with information derived from other sources. The graphical analysis carried out shows that overall, even at this early stage of actually conducting the survey, it is possible to identify some systematic patterns in the results from the bank lending survey that prove to be in line with indicators retrieved from other data sources. This could indicate that the sample is indeed very representative of the euro area. However, with only eight observations available, these results should be interpreted with a high degree of caution. More time and experience will be needed to assess how exactly to interpret these results and how to judge the relationship between them and actual economic and financial developments.

6 CONCLUDING REMARKS

When more than three years ago the Eurosystem decided to assess whether or not it should implement a bank lending survey for the euro area, one of the main purposes of such a survey was to provide the ECB Governing Council with new input into the monetary policy decision-making process. Almost two years after the first survey, the assessment of the whole exercise is positive. The results of the survey are used in a regular way to complement information derived from existing quantitative statistics on bank retail interest rates and credit. In this respect, the survey provides useful information on developments in supply and demand conditions in the euro area credit markets and on the bank lending policies of euro area banks.

The analysis presented in this occasional paper shows that overall, even at this early stage, the results of the survey are not only consistent with other statistics, but could also provide added value by improving our understanding of actual economic and financial developments in the euro area. The graphical analysis undertaken in Chapter 5 should, of course, be reinforced with more sophisticated tools, which will be possible when longer times series have become available.

High-quality representative results from the bank lending survey should serve the interests of both policy-makers and market participants. By taking part in the bank lending survey, banks contribute to generating information that is particularly useful for the euro area banking sector. At the moment, qualitative information sources on euro area-wide developments in bank lending behaviour, which would allow individual banks to assess their own behaviour vis-à-vis their competitors, are still scarce. There are also a number of additional benefits related to obtaining a better insight into possible reasons for structural changes in the euro area banking sector, developing a more suitable framework for analysing the economic situation in the euro area, and interpreting certain irregular events in the euro area financial markets.

ANNEX I

THE QUESTIONNAIRE OF THE BANK LENDING SURVEY FOR THE EURO AREA

ANNEX I

1. Over the past three months, how have your bank's credit standards as applied to the approval of loans or credit lines to enterprises changed?

	Overall	Loans to small and medium-sized enterprises	Loans to large enterprises	Short-term loans	Long-term loans
Tightened considerably					
Tightened somewhat					
Remained basically unchanged					
Eased somewhat					
Eased considerably					

2. Over the past three months, how have the following factors affected your bank's credit standards as applied to the approval of loans or credit lines to enterprises (as described in question 1 in the column headed "Overall")? Please rate the contribution of the following factors to the tightening or easing of credit standards using the following scale:

-- = contributed considerably to tightening of credit standards

- = contributed somewhat to tightening of credit standards

□ = contributed to basically unchanged credit standards

+ = contributed somewhat to easing of credit standards

++ = contributed considerably to easing of credit standards

NA = not applicable

	--	-	□	+	++	NA
A) Cost of funds and balance sheet constraints						
<input type="checkbox"/> Costs related to your bank's capital position						
<input type="checkbox"/> Your bank's ability to access market financing (e.g. money or bond market financing)						
<input type="checkbox"/> Your bank's liquidity position						
B) Pressure from competition						
<input type="checkbox"/> Competition from other banks						
<input type="checkbox"/> Competition from non-banks						
<input type="checkbox"/> Competition from market financing						
C) Perception of risk						
<input type="checkbox"/> Expectations regarding general economic activity						
<input type="checkbox"/> Industry or firm-specific outlook						
<input type="checkbox"/> Risk on the collateral demanded						
D) Other factors, please specify						

3. Over the past three months, how have your bank's conditions and terms for approving loans or credit lines to enterprises changed? Please rate each factor using the following scale:

- = tightened considerably
- = tightened somewhat
- = remained basically unchanged
- + = eased somewhat
- ++ = eased considerably
- NA = not applicable

	--	-	<input type="checkbox"/>	+	++	NA
A) Price						
<input type="checkbox"/> Your bank's margin on average loans (wider margin = tightened, narrower margin = eased)						
<input type="checkbox"/> Your bank's margin on riskier loans						
B) Other conditions and terms						
<input type="checkbox"/> Non-interest rate charges						
<input type="checkbox"/> Size of the loan or credit line						
<input type="checkbox"/> Collateral requirements						
<input type="checkbox"/> Loan covenants						
<input type="checkbox"/> Maturity						
C) Other factors, please specify						

4. Over the past three months, how has the demand for loans or credit lines to enterprises changed at your bank, apart from normal seasonal fluctuations?

	Overall	Loans to small and medium-sized enterprises	Loans to large enterprises	Short-term loans	Long-term loans
Decreased considerably					
Decreased somewhat					
Remained basically unchanged					
Increased somewhat					
Increased considerably					

5. Over the past three months, how have the following factors affected the demand for loans or credit lines to enterprises (as described in question 4 in the column headed "Overall")? Please rate each possible factor using the following scale:

-- = contributed considerably to lower demand

- = contributed somewhat to lower demand

= contributed to basically unchanged demand

+ = contributed somewhat to higher demand

++ = contributed considerably to higher demand

NA = not applicable

	--	-	<input type="checkbox"/>	+	++	NA
A) Financing needs						
<input type="checkbox"/> Fixed investment						
<input type="checkbox"/> Inventories and working capital						
<input type="checkbox"/> Mergers/acquisitions and corporate restructuring						
<input type="checkbox"/> Debt restructuring						
B) Use of alternative finance						
<input type="checkbox"/> Internal financing						
<input type="checkbox"/> Loans from other banks						
<input type="checkbox"/> Loans from non-banks						
<input type="checkbox"/> Issuance of debt securities						
<input type="checkbox"/> Issuance of equity						
C) Other factors, please specify						

6. Please indicate how you expect your bank's credit standards as applied to the approval of loans or credit lines to enterprises to change over the next three months.

	Overall	Loans to small and medium-sized enterprises	Loans to large enterprises	Short-term loans	Long-term loans
Tighten considerably					
Tighten somewhat					
Remain basically unchanged					
Ease somewhat					
Ease considerably					

7. Please indicate how you expect demand for loans or credit lines to enterprises to change at your bank over the next three months (apart from normal seasonal fluctuations)

	Overall	Loans to small and medium-sized enterprises	Loans to large enterprises	Short-term loans	Long-term loans
Decrease considerably					
Decrease somewhat					
Remain basically unchanged					
Increase somewhat					
Increase considerably					

8. Over the past three months, how have your bank's credit standards as applied to the approval of loans to households changed?

	Loans for house purchase	Consumer credit and other lending
Tightened considerably		
Tightened somewhat		
Remained basically unchanged		
Eased somewhat		
Eased considerably		

9. Over the past three months, how have the following factors affected your bank's credit standards as applied to the approval of loans to households for house purchase (as described in question 8)? Please rate the contribution of the following factors to the tightening or easing of credit standards using the following scale:

-- = contributed considerably to tightening of credit standards

- = contributed somewhat to tightening of credit standards

= contributed to basically unchanged credit standards

+ = contributed somewhat to easing of credit standards

++ = contributed considerably to easing of credit standards

NA = not applicable

	--	-	<input type="checkbox"/>	+	++	NA
A) <u>Cost of funds and balance sheet constraints</u>			<input type="checkbox"/>			
B) <u>Pressure from competition</u>						
<input type="checkbox"/> Competition from other banks						
<input type="checkbox"/> Competition from non-banks						
C) <u>Perception of risk</u>						
<input type="checkbox"/> Expectations regarding general economic activity						
<input type="checkbox"/> Housing market prospects						
D) <u>Other factors, please specify</u>						

10. Over the past three months, how have your bank's conditions and terms for approving loans to households for house purchase changed? Please rate each factor using the following scale:

- = tightened considerably
 - = tightened somewhat
 = remained basically unchanged
 + = eased somewhat
 ++ = eased considerably
 NA = not applicable

	--	-	<input type="checkbox"/>	+	++	NA
A) Price						
<input type="checkbox"/> Your bank's margin on average loans (wider margin = tightened, narrower margin = eased)						
<input type="checkbox"/> Your bank's margin on riskier loans						
B) Other conditions and terms						
<input type="checkbox"/> Collateral requirements						
<input type="checkbox"/> "Loan-to-value" ratio						
<input type="checkbox"/> Maturity						
<input type="checkbox"/> Non-interest rate charges						
C) Other factors, please specify						

11. Over the past three months, how have the following factors affected your bank's credit standards as applied to the approval of consumer credit and other lending to households (as described in question 8)? Please rate the contribution of the following factors to the tightening or easing of credit standards using the following scale:

- = contributed considerably to tightening of credit standards
 - = contributed somewhat to tightening of credit standards
 = contributed to basically unchanged credit standards
 + = contributed somewhat to easing of credit standards
 ++ = contributed considerably to easing of credit standards
 NA = not applicable

	--	-	<input type="checkbox"/>	+	++	NA
A) Cost of funds and balance sheet constraints						
B) Pressure from competition						
<input type="checkbox"/> Competition from other banks						
<input type="checkbox"/> Competition from non-banks						
C) Perception of risk						
<input type="checkbox"/> Expectations regarding general economic activity						
<input type="checkbox"/> Creditworthiness of consumers						
<input type="checkbox"/> Risk on the collateral demanded						
D) Other factors, please specify						

12. Over the past three months, how have your bank's conditions and terms for approving consumer credit and other lending to households changed? Please rate each factor using the following scale:

- = tightened considerably
- = tightened somewhat
- = remained basically unchanged
- + = eased somewhat
- ++ = eased considerably
- NA = not applicable

	--	-	<input type="checkbox"/>	+	++	NA
A) Price						
<input type="checkbox"/> Your bank's margin on average loans (wider margin = tightened, narrower margin = eased)						
<input type="checkbox"/> Your bank's margin on riskier loans						
B) Other conditions and terms						
<input type="checkbox"/> Collateral requirements						
<input type="checkbox"/> Maturity						
<input type="checkbox"/> Non-interest rate charges						
C) Other factors, please specify						

13. Over the past three months, how has the demand for loans to households changed at your bank, apart from normal seasonal fluctuations?

	Loans for house purchase	Consumer credit and other lending
Decreased considerably		
Decreased somewhat		
Remained basically unchanged		
Increased somewhat		
Increased considerably		

14. Over the past three months, how have the following factors affected the demand for loans to households for house purchase (as described in question 13)? Please rate each factor using the following scale:

- = contributed considerably to lower demand
 - = contributed somewhat to lower demand
 = contributed to basically unchanged demand
 + = contributed somewhat to higher demand
 ++ = contributed considerably to higher demand
 NA = not applicable

	--	-	<input type="checkbox"/>	+	++	NA
A) Financing needs						
<input type="checkbox"/> Housing market prospects						
<input type="checkbox"/> Consumer confidence						
<input type="checkbox"/> Non-housing-related consumption expenditure						
B) Use of alternative finance						
<input type="checkbox"/> Household savings						
<input type="checkbox"/> Loans from other banks						
<input type="checkbox"/> Other sources of finance						
C) Other factors, please specify						

15. Over the past three months, how have the following factors affected the demand for consumer credit and other lending to households (as described in question 13)?

Please rate each factor using the following scale:

- = responsible for considerable decrease
 - = responsible for decrease
 = responsible for neither decrease nor increase
 + = responsible for increase
 ++ = responsible for considerable increase
 NA = not applicable

	--	-	<input type="checkbox"/>	+	++	NA
A) Financing needs						
<input type="checkbox"/> Spending on durable consumer goods, such as cars, furniture, etc.						
<input type="checkbox"/> Consumer confidence						
<input type="checkbox"/> Securities purchases						
B) Use of alternative finance						
<input type="checkbox"/> Household savings						
<input type="checkbox"/> Loans from other banks						
<input type="checkbox"/> Other sources of finance						
C) Other factors, please specify						

16. Please indicate how you expect your bank's credit standards as applied to the approval of loans to households to change over the next three months.

	Loans for house purchase	Consumer credit and other lending
Tighten considerably		
Tighten somewhat		
Remain basically unchanged		
Ease somewhat		
Ease considerably		

17. Please indicate how you expect demand for loans to households to change over the next three months at your bank (apart from normal seasonal fluctuations).

	Loans for house purchase	Consumer credit and other lending
Decrease considerably		
Decrease somewhat		
Remain basically unchanged		
Increase somewhat		
Increase considerably		

18. Over the past three months, have there been any other issues of importance for bank lending behaviour in the euro area or in your country which are not covered by this survey?

ANNEX 2

THE COMPILATION GUIDE OF THE BANK LENDING SURVEY FOR THE EURO AREA

ANNEX 2

The questionnaire is accompanied by a short compilation guide. The purpose of the compilation guide is to help the respondent with basic information on how to fill out the survey. The compilation guide states the purpose of survey and summarises the structure of the survey. It is deliberately kept short, reflecting the spirit of the survey as not being a precise statistical exercise. The compilation guide also states the intended respondent. This is a senior loan officer, e.g. the chairman of the credit committee at or just below Board level.

Additionally, the compilation guide spells out that the time horizon in the backward looking questions is three months, and in the forward looking questions in principle also three months. However, given the different time horizons used in the formulation of credit policies and expectations regarding credit demand, the questionnaire recognises that the forward-looking horizon is more flexible. It should be noted that the questions are formulated in terms of changes occurring between the end of the last month of the quarter three months earlier and the end of the quarter that is finished or about to finish. Thus, in principle the answers should reflect the situation at the end of the quarter, rather than the average change over the quarter.

The compilation guide includes an overview of the possible more complex terms used in the questionnaire. A total of 17 terms are explained. However, it is also here emphasised that this is for guidance and that the respondents should be able to answer the questionnaire without a detailed knowledge of statistical terms. Thus respondents are not expected to have to resort to statistical information systems to answer the questions.

The most important term explained is probably “credit standards”. Credit standards include not only the written standards a bank has, but also the unwritten practice and their application. The two latter components make it more likely that changes occur over a quarter.

GUIDELINES FOR THE COMPLETION OF THE BANK LENDING SURVEY QUESTIONNAIRE

In the backward looking questions (all questions except 6, 7, 16 and 17), the time horizon is three months. For instance, in January the survey relates to changes between the end of September and the end of December.

In the forward-looking questions (6, 7, 16 and 17), the time horizon is in principle also three months (including the survey month), but some flexibility is given in view of the different time horizons used in the formulation of credit policies and expectations regarding credit demand.

In questions 2, 3, 5, 9, 10, 11, 12, 14 and 15, an answer should be given for all factors. If you do not have information about a specific factor, please use the option “not applicable” (column NA in the questionnaire). Should you judge that other factors or a specific market segment had a significant impact on overall developments, please specify under the option “Other factors”.

TERMS USED IN THE BANK LENDING SURVEY QUESTIONNAIRE

Capital (question 2)

Defined in accordance with the Basel capital adequacy requirements; includes both tier 1 capital (core capital) and tier 2 capital (supplementary capital).

Collateral (questions 2, 3, 10, 11 and 12)

The security given by a borrower to a lender as a pledge for the repayment of a loan. This could include certain financial securities, such as equity or debt securities, real estate or compensating balances. A compensating balance is the minimum amount of a loan that the borrower is required to keep in an account at the bank.

Consumer confidence (questions 14 and 15)

Consumers' assessments of economic and financial trends, in a particular country and/or in the euro area. They include assessments of the past and current financial situation of households and resulting prospects for the future, the past and current general economic situation and resulting prospects for the future and the advisability of making major purchases of durable consumer goods.

Covenant (question 3)

A covenant is an agreement or stipulation expressed in loan contracts, particularly contracts with enterprises, by which the borrower pledges to take certain action (an affirmative covenant) or refrain from taking certain action (a negative covenant), and is consequently part of the *terms and conditions* of a loan.

Credit line (questions 1-7)

A credit line is a facility with a stated maximum amount, which an enterprise is entitled to borrow from a bank at any given time. In the survey, developments regarding credit lines should be interpreted as changes in the net amount drawn under either an existing or a new credit line.

Credit standards (questions 1, 2, 6, 8, 9, 11 and 16)

Credit standards are the internal guidelines or criteria, which reflect a bank's loan policy. They are the written and unwritten criteria, or other practices related to this policy, which define the types of loan a bank considers desirable and undesirable, the designated geographic priorities, the collateral deemed acceptable and unacceptable, etc. In the survey, changes in written loan policies should be considered together with changes in their application.

Credit terms and conditions (questions 3, 10 and 12)

The terms and conditions of a loan refer to the specific obligations agreed upon by the lender and the borrower. In the context of this bank

lending survey, they consist of the direct price or interest rate, the maximum size of the loan and the access conditions, and other terms and conditions in the form of non-interest rate charges (i.e. fees), collateral requirements (including compensating balances), loan covenants and maturity (short versus long-term).

Enterprises (questions 1, 4, 6 and 7)

Enterprises refer to non-financial corporations, i.e. all private and public institutional units, whatever their size and legal form, which are not principally engaged in financial intermediation but rather in the production of goods and non-financial services.

Enterprise size (questions 1, 4, 6 and 7)

The distinction between large and small and medium-sized enterprises is based on annual sales. A firm is considered large if its annual net turnover is more than €50 million.

Expectations regarding general economic activity (question 11)

This includes changes in the unemployment outlook. Any other relevant changes in socio-economic factors can be inserted under the option "Other factors".

Households (questions 8-17)

Households are individuals or groups of individuals acting as consumers or as producers of goods and non-financial services exclusively intended for their own final consumption and small-scale market producers.

Housing market prospects (question 9)

This includes the risk on collateral demanded.

Loans

The loans covered by the bank lending survey are those granted to euro area residents by domestic branches, including *loans or credit lines to enterprises, loans to households for house purchase, and consumer credit and other lending to households.*

The definition of loans is that given in Regulation (EC) No. 2423/2001 of the European Central Bank of 22 November 2001 concerning the consolidated balance sheet of the monetary financial institutions (MFI) sector (ECB/2001/13). However, interbank loans should be excluded. Following this definition, financial (but not operating) leases granted by an MFI are to be recorded as loans. For the purposes of the survey, factoring, if provided by an MFI, should also be treated as a loan. Financial leasing and factoring offered by institutions other than MFIs should not be included.

Loan-to-value ratio (question 10)

The ratio of the amount borrowed to the appraisal or market value of the underlying collateral, usually taken into consideration in relation to loans used for real estate financing.

Maturity (questions 1, 4, 6 and 7)

The concept of maturity used in the bank lending survey is *original maturity*, and only two different types are used, i.e. short-term and long-term. *Short-term loans* are loans with an original maturity of one year or less and, consequently, *long-term loans* are loans that have an original maturity of more than one year.

Non-banks (questions 2, 5, 9 and 11)

In general these are non-monetary financial corporations. More specifically, they include insurance corporations and pension funds, financial auxiliaries and other financial intermediaries.

Non-interest rate charges (questions 3, 10 and 12)

These are various kinds of fees which can be part of the pricing of a loan, such as commitment fees on revolving loans, administration fees (e.g. document preparation costs), and charges for enquiries, guarantees and credit insurance.

ANNEX 3

THE OCTOBER 2004 FEDERAL RESERVE SENIOR LOAN OFFICER OPINION SURVEY ON BANK LENDING PRACTICES

The detailed structure of the October 2004 Federal Reserve Senior Loan Officer Opinion Survey on Bank Lending Practices is as follows (Federal Reserve Board (2004)). The survey covers both businesses (questions 1-11), which are for a number of questions separated into large and middle-market firms (annual sales of \$50 million or more) and small firms (annual sales of less than \$50 million), and households (questions 12-19). Loans to businesses are separated into so-called commercial and industrial (C&I) loans (questions 1-9) and commercial real estate loans (questions 10-11). The total number of questions in the October 2004 survey is slightly lower than in previous surveys in 2004 and in the October 2003 survey. The October 2004 survey does pay more attention to commercial and industrial loan developments compared with previous surveys, particularly regarding the identity and nature of increased competition from other sources of business credit (such as capital markets, other banks and other financial intermediaries such as hedge funds and insurance companies) and banks' outlook for business loan credit quality. Loans to households are separated into residential mortgage loans (questions 12-13) and consumer lending (questions 14-19).

Of the 19 questions in the October 2004 survey, 13 focus on more supply-oriented factors, such as credit standards, terms of loans, willingness to lend and securitisation of loans, and six on demand for loans. Thus, the Fed's bank lending survey is more oriented towards loan supply than loan demand. The time horizon of the survey is clearly backward-looking, with the main focus on developments "over the past three months", although a few questions are related to the current situation. All in all, none of the questions in the October 2004 survey ask respondents about future developments. The most recent question of a forward-looking nature was in the April 2004 survey, when respondents were asked about the likely average rate of increase in home prices during the next twelve months. This question was a supplementary one.

A separate set of 11 questions in the October 2004 survey focuses on bank lending practices at selected branches and agencies of foreign banks in the US. The results are based on the answers of 20 respondents. The structure of these questions is similar to the core set of questions of the questionnaire which is sent to the US banks in the sample group.

SENIOR LOAN OFFICER OPINION SURVEY ON BANK LENDING PRACTICES AT SELECTED LARGE BANKS IN THE UNITED STATES^{1,2}

(Status of policy as of October 2004)

Questions 1-3 ask about changes in your bank's commercial and industrial (C&I) lending policies over the past three months. If your bank's lending policies have not changed over the past three months, please report them as unchanged even if the policies are either restrictive or accommodative relative to longer-term norms. If your bank's policies have tightened or eased over the past three months, please so report them regardless of how they stand relative to longer-term norms. Also, please report changes in enforcement of existing policies as changes in policies.

applications for C&I loans or credit lines – other than those to be used to finance mergers and acquisitions – to large and middle-market firms and to small firms changed? (If your bank defines firm size differently from the categories suggested below, please use your definitions and indicate what they are.)

1. Over the past three months, how have your bank's credit standards for approving

- 1 As published by the Federal Reserve Board on its website. See Federal Reserve Board (2004).
- 2 The sample is selected from among the largest banks in each Federal Reserve District. In the table, large banks are defined as those with total domestic assets of \$20 billion or more as of June 30, 2004. The combined assets of the 35 large banks totaled \$3.62 trillion, compared to \$3.84 trillion for the entire panel of 57 banks, and \$7.04 trillion for all domestically chartered, federally insured commercial banks.

A. Standards for large and middle-market firms

(annual sales of \$50 million or more)

	All Respondents		Large Banks		Other Banks	
	Banks	Pct	Banks	Pct	Banks	Pct
Tightened considerably	0	0.0	0	0.0	0	0.0
Tightened somewhat	0	0.0	0	0.0	0	0.0
Remained basically unchanged	45	78.9	27	77.1	18	81.8
Eased somewhat	12	21.1	8	22.9	4	18.2
Eased considerably	0	0.0	0	0.0	0	0.0
Total	57	100.0	35	100.0	22	100.0

B. Standards for small firms

(annual sales of less than \$50 million)

	All Respondents		Large Banks		Other Banks	
	Banks	Pct	Banks	Pct	Banks	Pct
Tightened considerably	0	0.0	0	0.0	0	0.0
Tightened somewhat	1	1.8	1	2.9	0	0.0
Remained basically unchanged	43	78.2	26	76.5	17	81.0
Eased somewhat	11	20.0	7	20.6	4	19.0
Eased considerably	0	0.0	0	0.0	0	0.0
Total	55	100.0	34	100.0	21	100.0

2. For applications for C&I loans or credit lines – other than those to be used to finance mergers and acquisitions – from large and middle-market firms and from small firms that your bank currently is willing to approve, how have the terms of those loans changed over the past three months? (Please assign each term a number between 1 and 5 using the following scale: 1 = tightened considerably, 2 = tightened somewhat, 3 = remained basically unchanged, 4 = eased somewhat, 5 = eased considerably.)

A. Terms for large and middle-market firms

(annual sales of \$50 million or more)

	All Respondents	Large Banks	Other Banks
	Mean	Mean	Mean
Maximum size of credit lines	3.31	3.27	3.36
Costs of credit lines	3.35	3.39	3.27
Spreads of loan rates over your bank's cost of funds (wider spreads = tightened, narrower spreads = eased)	3.52	3.56	3.45
Premiums charged on riskier loans	3.21	3.24	3.18
Loan covenants	3.16	3.18	3.14
Collateralization requirements	3.00	2.94	3.09
Other	4.00	4.00	0.00
Number of banks responding	56	34	22

B. Terms for small firms

(annual sales of less than \$50 million)

	All Respondents	Large Banks	Other Banks
	Mean	Mean	Mean
Maximum size of credit lines	3.13	3.09	3.19
Costs of credit lines	3.24	3.24	3.24
Spreads of loan rates over your bank's cost of funds (wider spreads = tightened, narrower spreads = eased)	3.40	3.38	3.43
Premiums charged on riskier loans	3.11	3.12	3.10
Loan covenants	3.18	3.21	3.14
Collateralization requirements	2.98	2.97	3.00
Other	3.50	3.50	3.50
Number of banks responding	55	34	21

3. If your bank has tightened or eased its credit standards or its terms for C&I loans or credit lines over the past three months (as described in questions 1 and 2), how important have been the following possible reasons for the change? (Please respond to either A, B, or both as appropriate and rate each possible reason using the following scale: 1 = not important, 2 = somewhat important, 3 = very important.)

A. Possible reasons for tightening credit standards or loan terms

	All Respondents	Large Banks	Other Banks
	Mean	Mean	Mean
Deterioration in your bank's current or expected capital position	1.13	1.00	1.33
Less favorable or more uncertain economic outlook	1.38	1.00	2.00
Worsening of industry-specific problems	1.86	1.80	2.00
Less aggressive competition from other banks or nonbank lenders (other financial intermediaries or the capital markets)	1.00	1.00	1.00
Reduced tolerance for risk	1.75	1.40	2.33
Decreased liquidity in the secondary market for these loans	1.00	1.00	1.00
Increase in defaults by borrowers in public debt markets	1.00	1.00	1.00
Other	1.00	1.00	0.00
Number of banks responding	8	5	3

B. Possible reasons for easing credit standards or loan terms

	All Respondents	Large Banks	Other Banks
	Mean	Mean	Mean
Improvement in your bank's current or expected capital position	1.23	1.35	1.00
More favorable or less uncertain economic outlook	1.87	1.90	1.80
Improvement in industry-specific problems	1.36	1.42	1.22
More aggressive competition from other banks or nonbank lenders (other financial intermediaries or the capital markets)	2.47	2.43	2.55
Increased tolerance for risk	1.43	1.45	1.40
Increased liquidity in the secondary market for these loans	1.33	1.45	1.10
Reduction in defaults by borrowers in public debt markets	1.31	1.37	1.20
Other	2.00	2.00	0.00
Number of banks responding	32	21	11

In the most recent three surveys, respondent banks overall have reported an easing of business lending standards and terms despite a pickup in loan demand. Banks that have eased standards or terms have indicated that they have done so primarily in response to increased competition from other sources of business credit. *Questions 4 and 5* ask about the identity and nature of this competition. *Question 6* asks about your bank's outlook for business loan credit quality over the next year.

4. If your bank has eased standards or terms since the beginning of the year as a result of greater competitive pressures in the C&I loan market, how has the degree of competition from the following alternative sources of funds changed during that period? (Please assign, for those entities listed that your bank views as a potential source of credit for your C&I customers, a number between 1 and 5 using the following scale: 1 = increased considerably, 2 = increased somewhat, 3 = has been little changed, 4 = decreased somewhat, 5 = decreased considerably.)

	All Respondents	Large Banks	Other Banks
	Mean	Mean	Mean
Capital markets (commercial paper, bonds, equity)	2.54	2.48	2.67
Special purpose investment vehicles (for example, collateralized loan obligations)	2.57	2.43	2.83
Insurance companies	2.76	2.71	2.86
Investment banks	2.46	2.29	2.77
U.S. commercial banks	1.74	1.74	1.75
Foreign banks	2.52	2.54	2.44
Hedge funds	2.72	2.62	3.00
Other	2.00	0.00	2.00
Number of banks responding	43	27	16

5. Does your bank view this increasing competition from other sources of business credit as primarily temporary, reflecting

current economic market conditions, or as a more permanent change in the structure of the C&I loan market?

	All Respondents		Large Banks		Other Banks	
	Banks	Pct	Banks	Pct	Banks	Pct
Primarily temporary, reflecting current economic conditions	11	21.6	6	18.2	5	27.8
Primarily permanent, reflecting a change in the structure of the C&I loan market	15	29.4	10	30.3	5	27.8
Not clear at this point	25	49.0	17	51.5	8	44.4
Total	51	100.0	33	100.0	18	100.0

6. Over the past two years, C&I loan delinquencies and chargeoffs have improved substantially. Looking ahead over the next year, and assuming that economic activity progresses in line with consensus forecasts, what is your bank's outlook for these measures of C&I loan quality?

	All Respondents		Large Banks		Other Banks	
	Banks	Pct	Banks	Pct	Banks	Pct
Loan quality is likely to continue to improve	16	28.1	10	28.6	6	27.3
Loan quality is likely to stabilize around current levels	37	64.9	24	68.6	13	59.1
Loan quality is likely to begin to decline	4	7.0	1	2.9	3	13.6
Total	57	100.0	35	100.0	22	100.0

Questions 7-9 deal with changes in demand for C&I loans over the past three months.

7. Apart from normal seasonal variation, how has demand for C&I loans changed over the past three months? (Please consider only funds actually disbursed as opposed to requests for new or increased lines of credit.)

A. Demand for C&I loans from large and middle-market firms

(annual sales of \$50 million or more)

	All Respondents		Large Banks		Other Banks	
	Banks	Pct	Banks	Pct	Banks	Pct
Substantially stronger	0	0.0	0	0.0	0	0.0
Moderately stronger	21	36.8	16	45.7	5	22.7
About the same	30	52.6	16	45.7	14	63.6
Moderately weaker	6	10.5	3	8.6	3	13.6
Substantially weaker	0	0.0	0	0.0	0	0.0
Total	57	100.0	35	100.0	22	100.0

B. Demand for C&I loans from small firms

(annual sales of less than \$50 million)

	All Respondents		Large Banks		Other Banks	
	Banks	Pct	Banks	Pct	Banks	Pct
Substantially stronger	0	0.0	0	0.0	0	0.0
Moderately stronger	20	36.4	14	41.2	6	28.6
About the same	29	52.7	17	50.0	12	57.1
Moderately weaker	6	10.9	3	8.8	3	14.3
Substantially weaker	0	0.0	0	0.0	0	0.0
Total	55	100.0	34	100.0	21	100.0

8. If demand for C&I loans has strengthened or weakened over the past three months (as described in question 7), how important have been the following possible reasons for the change? (Please respond to either A, B, or both as appropriate and rate each possible reason using the following scale: 1 = not important, 2 = somewhat important, 3 = very important.)

A. If stronger loan demand (answer 1 or 2 to question 7A or 7B), possible reasons

	All Respondents	Large Banks	Other Banks
	Mean	Mean	Mean
Customer inventory financing needs increased	1.93	1.85	2.14
Customer accounts receivable financing needs increased	1.96	1.90	2.14
Customer investment in plant or equipment increased	1.85	1.80	2.00
Customer internally generated funds decreased	1.08	1.05	1.14
Customer merger or acquisition financing needs increased	1.62	1.58	1.71
Customer borrowing shifted to your bank from other bank or non-bank sources because these other sources became less attractive	1.81	1.90	1.57
Other	1.00	1.00	0.00
Number of banks responding	27	20	7

B. If weaker loan demand (answer 4 or 5 to questions 7A or 7B), possible reasons

	All Respondents	Large Banks	Other Banks
	Mean	Mean	Mean
Customer inventory financing needs decreased	1.50	1.67	1.40
Customer accounts receivable financing needs decreased	1.63	1.67	1.60
Customer investment in plant or equipment decreased	2.13	2.33	2.00
Customer internally generated funds increased	2.13	2.33	2.00
Customer merger or acquisition financing needs decreased	2.00	2.33	1.80
Customer borrowing shifted from your bank to other bank or non-bank credit sources because these other sources became more attractive	2.13	2.33	2.00
Other	3.00	3.00	0.00
Number of banks responding	9	4	5

9. At your bank, how has the number of inquiries from potential business borrowers regarding the availability and terms of new credit lines or increases in existing lines changed over the past three months? (Please consider only inquiries for additional C&I lines as opposed to the refinancing of existing loans.)

	All Respondents		Large Banks		Other Banks	
	Banks	Pct	Banks	Pct	Banks	Pct
The number of inquiries has increased substantially	1	1.8	1	2.9	0	0.0
The number of inquiries has increased moderately	21	38.2	13	38.2	8	38.1
The number of inquiries has stayed about the same	32	58.2	20	58.8	12	57.1
The number of inquiries has decreased moderately	1	1.8	0	0.0	1	4.8
The number of inquiries has decreased substantially	0	0.0	0	0.0	0	0.0
Total	55	100.0	34	100.0	21	100.0

Questions 10-11 ask about *commercial real estate loans* at your bank, including construction and land development loans and loans secured by nonfarm nonresidential real estate. Question 10 deals with changes in your bank's standards over the last three months. Question 11 deals with changes in demand. If your bank's lending standards or terms have not changed over the relevant period, please report them as unchanged even if they are either restrictive or accommodative relative to

longer-term norms. If your bank's standards or terms have tightened or eased over the relevant period, please so report them regardless of how they stand relative to longer-term norms. Also, please report changes in enforcement of existing standards as changes in standards.

10. Over the past three months, how have your bank's credit standards for approving applications for commercial real estate loans changed?

	All Respondents		Large Banks		Other Banks	
	Banks	Pct	Banks	Pct	Banks	Pct
Tightened considerably	0	0.0	0	0.0	0	0.0
Tightened somewhat	1	1.8	1	2.9	0	0.0
Remained basically unchanged	45	78.9	26	74.3	19	86.4
Eased somewhat	11	19.3	8	22.9	3	13.6
Eased considerably	0	0.0	0	0.0	0	0.0
Total	57	100.0	35	100.0	22	100.0

11. Apart from normal seasonal variation, how has demand for commercial real estate loans changed over the past three months?

	All Respondents		Large Banks		Other Banks	
	Banks	Pct	Banks	Pct	Banks	Pct
Substantially stronger	3	5.3	1	2.9	2	9.1
Moderately stronger	15	26.3	10	28.6	5	22.7
About the same	34	59.6	23	65.7	11	50.0
Moderately weaker	4	7.0	1	2.9	3	13.6
Substantially weaker	1	1.8	0	0.0	1	4.5
Total	57	100.0	35	100.0	22	100.0

Questions 12-13 ask about *residential mortgage loans* at your bank. Question 12 deals with changes in your bank's credit standards over the past three months and Question 13 deals with changes in demand over the same period. If your bank's credit standards have not changed over the relevant period, please report them as unchanged even if the standards are either restrictive or accommodative relative to longer-term norms. If your bank's credit standards have tightened or eased over the

relevant period, please so report them regardless of how they stand relative to longer-term norms. Also, please report changes in enforcement of existing standards as changes in standards.

12. Over the past three months, how have your bank's credit standards for approving applications from individuals for mortgage loans to purchase homes changed?

	All Respondents		Large Banks		Other Banks	
	Banks	Pct	Banks	Pct	Banks	Pct
Tightened considerably	0	0.0	0	0.0	0	0.0
Tightened somewhat	2	3.8	2	6.1	0	0.0
Remained basically unchanged	50	94.3	30	90.9	20	100.0
Eased somewhat	1	1.9	1	3.0	0	0.0
Eased considerably	0	0.0	0	0.0	0	0.0
Total	53	100.0	33	100.0	20	100.0

13. Apart from normal season variation, how has demand for mortgages to purchase homes changed over the past three months? (Please

consider only new originations as opposed to the refinancing of existing mortgages.)

	All Respondents		Large Banks		Other Banks	
	Banks	Pct	Banks	Pct	Banks	Pct
Substantially stronger	0	0.0	0	0.0	0	0.0
Moderately stronger	7	13.2	5	15.2	2	10.0
About the same	26	49.1	17	51.5	9	45.0
Moderately weaker	16	30.2	10	30.3	6	30.0
Substantially weaker	4	7.5	1	3.0	3	15.0
Total	53	100.0	33	100.0	20	100.0

Questions 14-19 ask about *consumer lending* at your bank. Question 14 deals with changes in your bank's willingness to make consumer loans over the past three months. Questions 15-18 deal with changes in credit standards and loan terms over the past three months, please report them as unchanged even if the policies are either restrictive or accomodative relative to longer-term norms. If your bank's policies

have tightened or eased over the past three months, please so report them regardless of how they stand relative to longer-term norms. Also, please report changes in enforcement of existing policies as changes in policies.

14. Please indicate your bank's willingness to make consumer installment loans now as opposed to three months ago.

	All Respondents		Large Banks		Other Banks	
	Banks	Pct	Banks	Pct	Banks	Pct
Much more willing	1	1.9	1	2.9	0	0.0
Somewhat more willing	6	11.1	4	11.8	2	10.0
About unchanged	47	87.0	29	85.3	18	90.0
Somewhat less willing	0	0.0	0	0.0	0	0.0
Much less willing	0	0.0	0	0.0	0	0.0
Total	54	100.0	34	100.0	20	100.0

15. Over the past three months, how have your bank's credit standards for approving applications for credit cards from individuals or households changed?

	All Respondents		Large Banks		Other Banks	
	Banks	Pct	Banks	Pct	Banks	Pct
Tightened considerably	0	0.0	0	0.0	0	0.0
Tightened somewhat	0	0.0	0	0.0	0	0.0
Remained basically unchanged	33	97.1	17	94.4	16	100.0
Eased somewhat	1	2.9	1	5.6	0	0.0
Eased considerably	0	0.0	0	0.0	0	0.0
Total	34	100.0	18	100.0	16	100.0

16. Over the past three months, how have your bank's credit standards for approving applications for consumer loans other than credit card loans changed?

	All Respondents		Large Banks		Other Banks	
	Banks	Pct	Banks	Pct	Banks	Pct
Tightened considerably	0	0.0	0	0.0	0	0.0
Tightened somewhat	2	3.8	1	3.0	1	5.3
Remained basically unchanged	46	88.5	28	84.8	18	94.7
Eased somewhat	4	7.7	4	12.1	0	0.0
Eased considerably	0	0.0	0	0.0	0	0.0
Total	52	100.0	33	100.0	19	100.0

17. Over the past three months, how has your bank changed the following terms and conditions on new or existing credit card accounts for individuals or households? (Please assign each term a number between 1 and 5 using the following scale: 1 = tightened considerably, 2 = tightened somewhat, 3 = remained basically unchanged, 4 = eased somewhat, 5 = eased considerably.)

	All Respondents	Large Banks	Other Banks
	Mean	Mean	Mean
Credit limits	2.96	2.93	3.00
Spreads of interest rates charged on outstanding balances over your bank's cost of funds (wider spreads = tightened, narrower spreads = eased)	2.96	2.93	3.00
Minimum percent of outstanding balances required to be repaid each month	2.96	3.00	2.92
Minimum required credit score (increased score = tightened, reduced score = eased)	2.93	3.00	2.85
The extent to which loans are granted to some customers that do not meet credit scoring thresholds (increased = eased, decreased = tight-ened)	2.89	3.00	2.77
Other	0.00	0.00	0.00
Number of banks responding	28	15	13

18. Over the past three months, how has your bank changed the following terms and conditions on consumer loans other than credit card loans? (Please assign each term a number between 1 and 5 using the following scale: 1 = tightened considerably, 2 = tightened somewhat, 3 = remained basically unchanged, 4 = eased somewhat, 5 = eased considerably.)

	All Respondents	Large Banks	Other Banks
	Mean	Mean	Mean
Maximum maturity	3.08	3.12	3.00
Spreads of loan rates over your bank's cost of funds (wider spreads = tightened, narrower spreads = eased)	3.06	3.06	3.05
Minimum required downpayment	3.02	3.03	3.00
Minimum required credit score (increased score = tightened, reduced score = eased)	3.04	3.09	2.95
The extent to which loans are granted to some customers that do not meet credit scoring thresholds (increased = eased, decreased = tight-ened)	3.00	3.00	3.00
Other	2.00	0.00	2.00
Number of banks responding	53	33	20

19. Apart from normal seasonal variation, how has demand for consumer loans of all types changed over the past three months?

	All Respondents		Large Banks		Other Banks	
	Banks	Pct	Banks	Pct	Banks	Pct
Substantially stronger	0	0.0	0	0.0	0	0.0
Moderately stronger	3	5.6	1	2.9	2	10.0
About the same	32	59.3	19	55.9	13	65.0
Moderately weaker	19	35.2	14	41.2	5	25.0
Substantially weaker	0	0.0	0	0.0	0	0.0
Total	54	100.0	34	100.0	20	100.0

ANNEX 4

THE OCTOBER 2004 BANK OF JAPAN SENIOR LOAN OFFICER OPINION SURVEY ON BANK LENDING PRACTICES AT LARGE JAPANESE BANKS

ANNEX 4

The detailed structure of the Bank of Japan's Senior Loan Officer Opinion Survey on Bank Lending Practices as implemented in October 2004 is as follows (Bank of Japan (2004)). Unlike the Federal Reserve's survey, the Bank of Japan (BoJ) survey is organised into a group of questions covering demand for loans (six questions) and another group of questions on bank lending policies (seven questions). Thus, the survey is relatively evenly broken down into questions covering supply and demand factors. In addition, the October 2004 survey includes one ad hoc question on the share of loans extended to firms that have been downgraded or upgraded in the past three months according to the banks' internal credit ratings.

The survey covers three groups of borrowers, namely firms, local government and households. Of these, local governments are only included in two questions on loan demand. The first group is subdivided into large firms, medium-sized firms and small firms, whereby large firms are defined as corporations with capital of one billion yen or more and with more than 300 regular employees, while small firms have capital of 300 million yen or less and have up to 300 regular employees. In addition, a breakdown of firms is provided by industry (manufacturing and non-manufacturing, which is segmented into construction and real estate, finance and insurance and other non-manufacturing). Thus, the BoJ survey gives a rather detailed overview of developments in banks' lending policies regarding the Japanese corporate sector. Loans to households are separated into housing loans and consumer loans. In total, the survey includes seven questions on loans only to firms, two questions on loans only to households, two questions on loans to both firms and households, and two questions on loans to all three sectors, i.e. firms, households and local government. Thus, the BoJ bank lending survey primarily concentrates on the business sector, which is covered in 11 of the 13 regular questions.

Regarding the time horizon of the survey, the BoJ survey covers both the past and the future, as four questions are forward-looking and cover the next three months. With respect to other particular characteristics, the survey includes two questions on changes in the spread of loan rates over the banks' cost of funds, which differentiate firms according to their ratings (high, medium or low).

SENIOR LOAN OFFICER OPINION SURVEY ON BANK LENDING PRACTICES AT LARGE JAPANESE BANKS (OCTOBER 2004)¹

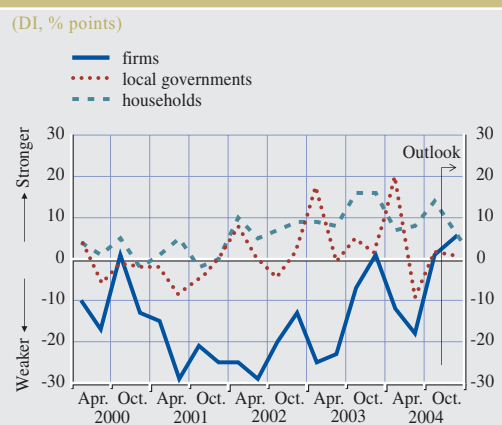
DEMAND FOR LOANS (QUESTIONS 1-6)

1. How has demand for loans from borrowers (firms, local governments, and households) changed over the past three months (apart from normal seasonal fluctuations)?

	DI for demand for loans(% point)	(July 2004)	Number of respondents selecting each option (percentage of respondents selecting each option)					Total
			Substantially stronger	Moderately stronger	About the same	Moderately weaker	Substantially weaker	
Firms	1	-18	2 (4%)	4 (8%)	38 (76%)	5 (10%)	1 (2%)	50
Local governments	2	-10	1 (2%)	4 (8%)	41 (82%)	4 (8%)	0 (0%)	50
Households	14	8	2 (4%)	12 (25%)	33 (67%)	2 (4%)	0 (0%)	49

Note: DI for demand for loans = (percentage of respondents selecting “substantially stronger” + percentage of respondents selecting “moderately stronger” × 0.5) - (percentage of respondents selecting “substantially weaker” + percentage of respondents selecting “moderately weaker” × 0.5) (same for question 2 and 4).

Demand for loans from borrowers: classified by borrower type



Note: See question 6. for the outlook.

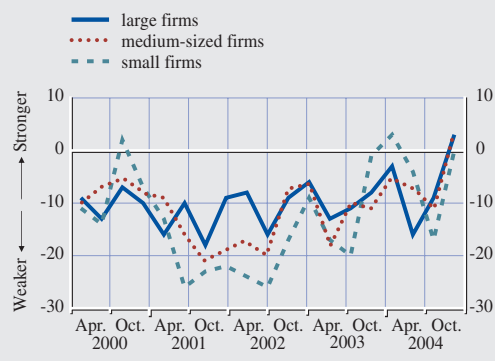
¹ As published by the Bank of Japan on its website. See Bank of Japan (2004).

2. How has demand for loans from firms changed over the past three months? Please give a breakdown by industry and firm size.

All industries	DI for demand for loans(% point)	(July 2004)	Number of respondents selecting each option (percentage of respondents selecting each option)					Total
			Substantially stronger	Moderately stronger	About the same	Moderately weaker	Substantially weaker	
Large firms	3	-9	1 (2%)	8 (16%)	35 (70%)	5 (10%)	1 (2%)	50
Medium-sized firms	4	-11	1 (2%)	4 (8%)	43 (86%)	2 (4%)	0 (0%)	50
Small firms	0	-17	2 (4%)	2 (4%)	41 (82%)	4 (8%)	1 (2%)	50

Demand for loans from firms: classified by firm size

(DI, % points)



Manufacturing	DI for demand for loans(% point)	(July 2004)	Number of respondents selecting each option (percentage of respondents selecting each option)					Total
			Substantially stronger	Moderately stronger	About the same	Moderately weaker	Substantially weaker	
Large firms	2	-9	0 (0%)	9 (18%)	35 (70%)	5 (10%)	1 (2%)	50
Medium-sized firms	3	-4	1 (2%)	4 (8%)	42 (84%)	3 (6%)	0 (0%)	50
Small firms	-4	-10	0 (0%)	3 (6%)	41 (82%)	5 (10%)	1 (2%)	50

Nonmanufacturing	DI for demand for loans(% point)	(July 2004)	Number of respondents selecting each option (percentage of respondents selecting each option)					Total
			Substantially stronger	Moderately stronger	About the same	Moderately weaker	Substantially weaker	
Large firms	1	-9	2 (4%)	6 (12%)	34 (68%)	7 (14%)	1 (2%)	50
Medium-sized firms	4	-12	1 (2%)	5 (10%)	41 (82%)	3 (6%)	0 (0%)	50
Small firms	4	-16	2 (4%)	6 (12%)	37 (74%)	4 (8%)	1 (2%)	50

Of which:

Construction and real estate	DI for demand for loans(% point) (July 2004)	Number of respondents selecting each option (percentage of respondents selecting each option)					Total	
		Substantially stronger	Moderately stronger	About the same	Moderately weaker	Substantially weaker		
Large firms	2	-9	3 (6%)	1 (2%)	42 (84%)	3 (6%)	1 (2%)	50
Medium-sized firms	4	-14	5 (10%)	1 (2%)	38 (76%)	5 (10%)	1 (2%)	50
Small firms	3	-17	2 (4%)	2 (4%)	44 (88%)	1 (2%)	1 (2%)	50

Finance and insurance	DI for demand for loans(% point) (July 2004)	Number of respondents selecting each option (percentage of respondents selecting each option)					Total	
		Substantially stronger	Moderately stronger	About the same	Moderately weaker	Substantially weaker		
Large firms	1	-1	3 (6%)	4 (8%)	35 (70%)	7 (14%)	1 (2%)	50
Medium-sized firms	0	-6	1 (2%)	1 (2%)	44 (90%)	3 (6%)	0 (0%)	49
Small firms	4	-4	3 (6%)	3 (6%)	38 (78%)	5 (10%)	0 (0%)	49

Other nonmanufacturing	DI for demand for loans(% point) (July 2004)	Number of respondents selecting each option (percentage of respondents selecting each option)					Total	
		Substantially stronger	Moderately stronger	About the same	Moderately weaker	Substantially weaker		
Large firms	1	-7	2 (4%)	5 (10%)	36 (72%)	6 (12%)	1 (2%)	50
Medium-sized firms	5	-6	0 (0%)	8 (16%)	39 (78%)	3 (6%)	0 (0%)	50
Small firms	-3	-13	0 (0%)	4 (8%)	40 (80%)	5 (10%)	1 (2%)	50

3.a If demand for loans from firms has increased at your bank (that is, the answer to question 2, "All industries" is either "Substantially stronger" or "Moderately stronger"), to what factors do you attribute this increase? (Please rate each possible reason using the following scale: 3 = important, 2 = somewhat important, 1 = not important.)

	Large firms	Medium-sized firms	Small firms
	Average	Average	Average
(1) Customers' sales increased	2.00	1.80	1.50
(2) Customers' fixed investment increased	1.89	2.00	1.50
(3) Customers' funding from other sources became difficult to obtain	1.00	1.00	1.25
(4) Customers' internally-generated funds decreased	1.11	1.00	1.25
(5) Customers' borrowing shifted from other sources to your bank	1.11	1.00	1.25
(6) Decline in interest rates	1.33	1.60	1.50
(7) Other factors	1.22	1.00	1.50
Number of banks responding	9	5	4

Note: Average is calculated by multiplying the share of respondents selecting each option by the scale of each option, then adding up the result (same for question 3b, 5a and 5b).

3.b If demand for loans from firms has decreased at your bank (that is, the answer to question 2, "All industries" is either "Substantially weaker" or "Moderately weaker"), to what factors do you attribute this decrease? (Please rate each possible reason using the following scale: 3 = important, 2 = somewhat important, 1 = not important.)

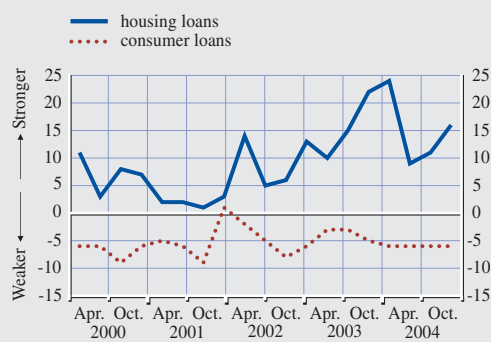
	Large firms	Medium-sized firms	Small firms
	Average	Average	Average
(1) Customers' sales decreased	1.33	1.50	1.80
(2) Customers' fixed investment decreased	1.67	2.00	1.80
(3) Customers' funding from other sources became easy to obtain	2.17	1.50	1.40
(4) Customers' internally-generated funds increased	2.00	2.00	1.60
(5) Customers' borrowing shifted from your bank to other sources	2.17	2.00	1.40
(6) Rise in interest rates	1.00	1.00	1.00
(7) Other factors	1.00	1.00	1.00
Number of banks responding	6	2	5

4. How has demand from households for housing and consumer loans changed?

	DI for demand for loans(% point)	(July 2004)	Number of respondents selecting each option (percentage of respondents selecting each option)					Total
			Substantially stronger	Moderately stronger	About the same	Moderately weaker	Substantially weaker	
Housing loans	16	11	3 (6%)	12 (25%)	32 (65%)	2 (4%)	0 (0%)	49
Consumer loans	-6	-6	0 (0%)	0 (0%)	42 (89%)	4 (9%)	1 (2%)	47

Demand for loans from households: classified by type of loan

(DI, % points)



5.a If demand for loans from households has increased at your bank (that is, the answer to question 4 is either “Substantially stronger” or “Moderately stronger”), to what factors do you attribute this increase? (Please rate each possible reason using the following scale: 3 = important, 2 = somewhat important, 1 = not important.)

	Housing loans	Consumer loans
	Average	Average
(1) Increase in housing investment	1.60	n.a.
(2) Increase in household consumption	1.27	n.a.
(3) Decrease in income	1.07	n.a.
(4) Decline in interest rates	2.33	n.a.
(5) Other factors	1.40	n.a.
Number of banks responding	15	0

5.b If demand for loans from households has decreased at your bank (that is, the answer to question 4 is either “Substantially weaker” or “Moderately weaker”), to what factors do you attribute this decrease? (Please rate each possible reason using the following scale: 3 = important, 2 = somewhat important, 1 = not important.)

	Housing loans	Consumer loans
	Average	Average
(1) Decrease in housing investment	2.00	1.00
(2) Decrease in household consumption	1.50	2.40
(3) Increase in income	1.00	1.00
(4) Rise in interest rates	1.00	1.00
(5) Other factors	1.50	1.00
Number of banks responding	2	5

6. How are demand for loans from borrowers (firms, local governments, and households) likely to change over the next three months (apart from normal seasonal fluctuations)?

	DI for demand for loans(% point)	(July 2004)	Number of respondents selecting each option (percentage of respondents selecting each option)					Total
			Increase substantially	Increase somewhat	Remain about the same	Decrease somewhat	Decrease substantially	
Firms	5	5	0 (0%)	7 (14%)	41 (82%)	2 (4%)	0 (0%)	50
Local governments	1	0	0 (0%)	1 (2%)	49 (98%)	0 (0%)	0 (0%)	50
Households	6	6	1 (2%)	6 (12%)	40 (82%)	2 (4%)	0 (0%)	49

Note: DI for demand for loans = (percentage of respondents selecting “increase substantially” + percentage of respondents selecting “increase somewhat” × 0.5) - (percentage of respondents selecting “decrease substantially” + percentage of respondents selecting “decrease somewhat” × 0.5).

LENDING POLICIES (QUESTIONS 7-13)

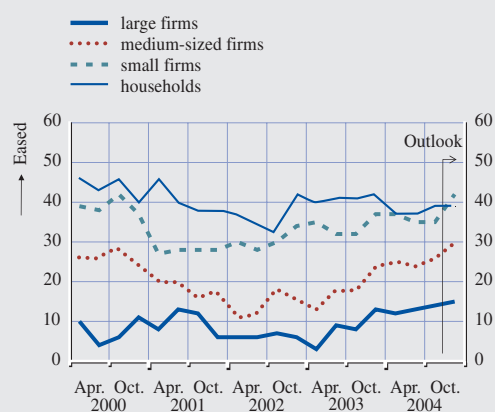
7. Over the past three months, how have your bank's credit standards for approving applications from firms and households changed?

	DI for credit standards(% point)	(July 2004)	Number of respondents selecting each option (percentage of respondents selecting each option)					Total
			Eased considerably	Eased somewhat	Remained basically unchanged	Tightened somewhat	Tightened considerably	
Large firms	14	13	2 (4%)	10 (20%)	38 (76%)	0 (0%)	0 (0%)	50
Medium-sized firms	26	24	4 (8%)	18 (36%)	28 (56%)	0 (0%)	0 (0%)	50
Small firms	35	35	6 (12%)	23 (46%)	21 (42%)	0 (0%)	0 (0%)	50
Households	39	37	11 (22%)	16 (33%)	22 (45%)	0 (0%)	0 (0%)	49

Note: DI for credit standards = (percentage of respondents selecting "eased considerably" + percentage of respondents selecting "eased somewhat" × 0.5) - (percentage of respondents selecting "tightened considerably" + percentage of respondents selecting "tightened somewhat" × 0.5).

Credit standards for approving applications for loan: classified by firms and households

(DI, % points)



Note: See question 11. for the outlook.

8.a If your bank has eased its credit standards for loans to firms over the past three months (as described in questions 7), what were the important factors that led to the change? (Please rate each possible reason using the following scale: 3 = important, 2 = somewhat important, 1 = not important.)

	Large firms	Medium-sized firms	Small firms
	Average	Average	Average
(1) An improvement in your bank's asset portfolio	1.42	1.50	1.48
(2) A more favorable or less uncertain economic outlook	1.75	1.45	1.31
(3) An improvement in industry- or firm-specific problems	1.67	1.45	1.34
(4) More aggressive competition from other banks	2.58	2.36	2.28
(5) More aggressive competition from non-banks	1.92	1.50	1.31
(6) More aggressive competition from capital markets	1.92	1.36	1.10
(7) An increased tolerance for risk	1.33	1.27	1.24
(8) Others	1.17	1.18	1.28
Number of banks responding	12	22	29

Note: Average is calculated by multiplying the share of respondents selecting each option by the scale of each option, then adding up the result (same for question 8b).

8.b If your bank has tightened its credit standards for loans to firms over the past three months (as described in questions 7), what were the important factors that led to the change? (Please rate each possible reason using the following scale: 3 = important, 2 = somewhat important, 1 = not important.)

	Large firms	Medium-sized firms	Small firms
	Average	Average	Average
(1) An deterioration in your bank's asset portfolio	n.a.	n.a.	n.a.
(2) A less favorable or more uncertain economic outlook	n.a.	n.a.	n.a.
(3) A worsening of industry- or firm-specific problems	n.a.	n.a.	n.a.
(4) Less aggressive competition from other banks	n.a.	n.a.	n.a.
(5) Less aggressive competition from non-banks	n.a.	n.a.	n.a.
(6) Less aggressive competition from capital markets	n.a.	n.a.	n.a.
(7) A reduced tolerance for risk	n.a.	n.a.	n.a.
(8) Others	n.a.	n.a.	n.a.
Number of banks responding	0	0	0

9. Over the past three months, how have the terms and conditions of loans to firms changed?

	DI for terms and conditions of loans (% point)		
	Large firms	Medium-sized firms	Small firms
(1) Maximum size of credit lines	9	10	11
(2) Spreads of loan rates over your bank's cost of funds (wider spreads = tightened, narrower spreads = eased)	6	8	4
(3) Premiums charged on riskier loans	2	-1	-2
(4) Collateralization requirements	3	5	6
(5) Others	0	0	0
Number of banks responding	50	50	50

Note: DI for terms and conditions of loans = (percentage of respondents selecting "eased considerably" + percentage of respondents selecting "eased somewhat" × 0.5) - (percentage of respondents selecting "tightened considerably" + percentage of respondents selecting "tightened somewhat" × 0.5).

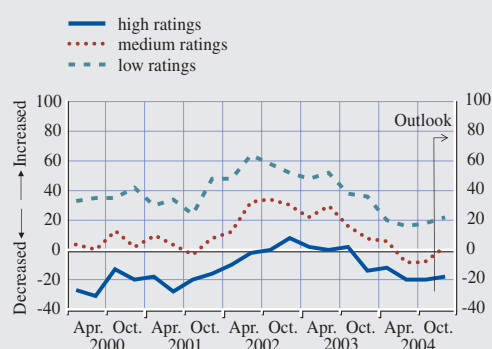
10. Over the past three months, how has your bank changed the spreads of loan rates over your bank's cost of funds?

For firms with	DI for spreads of loan rates(% point)	(July 2004)	Number of respondents selecting each option (percentage of respondents selecting each option)			Total
			Increased	Remained basically unchanged	Decreased	
High ratings	-20	-20	1 (2%)	38 (76%)	11 (22%)	50
Medium ratings	-8	-8	2 (4%)	42 (84%)	6 (12%)	50
Low ratings	18	16	9 (18%)	41 (82%)	0 (0%)	50

Note: DI for spreads of loan rates = percentage of respondents selecting "increased" - percentage of respondents selecting "decreased".

Spreads of loan rates over reporting banks' cost of funds: classified by rating of borrower firm

(DI, % points)



Note: See question 13. for the outlook.

11. Over the next three months, how are your bank's credit standards for firms and households likely to change?

	DI for credit standards(% point)	(July 2004)	Number of respondents selecting each option (percentage of respondents selecting each option)					Total
			Ease considerably	Ease somewhat	Remain basically unchanged	Tighten somewhat	Tighten considerably	
Large firms	15	12	4 (8%)	7 (14%)	39 (78%)	0 (0%)	0 (0%)	50
Medium-sized firms	30	23	5 (10%)	20 (40%)	25 (50%)	0 (0%)	0 (0%)	50
Small firms	42	35	10 (20%)	22 (44%)	18 (36%)	0 (0%)	0 (0%)	50
Households	39	33	12 (25%)	14 (29%)	23 (47%)	0 (0%)	0 (0%)	49

Note: DI for credit standards = (percentage of respondents selecting "ease considerably" + percentage of respondents selecting "ease somewhat" × 0.5) - (percentage of respondents selecting "tighten considerably" + percentage of respondents selecting "tighten somewhat" × 0.5).

12. Over the next three months, how are your bank's terms and conditions of loans to firms likely to change?

	DI for terms and conditions of loans (% point)		
	Large firms	Medium-sized firms	Small firms
(1) Maximum size of credit lines	11	12	13
(2) Spreads of loan rates over your bank's cost of funds (wider spreads = tightened, narrower spreads = eased)	5	4	0
(3) Premiums charged on riskier loans	3	0	0
(4) Collateralization requirements	3	4	6
(5) Others	0	0	0
Number of banks responding	50	50	50

Note: DI for terms and conditions of loans = (percentage of respondents selecting "ease considerably" + percentage of respondents selecting "ease somewhat" × 0.5) - (percentage of respondents selecting "tighten considerably" + percentage of respondents selecting "tighten somewhat" × 0.5).

13. Over the next three months, how does your bank intend to change the spreads of loan rates?

For firms with	DI for spreads of loan rates(% point)	(July 2004)	Number of respondents selecting each option (percentage of respondents selecting each option)			Total
			Increase	Remain the same	Decrease	
High ratings	-18	-10	1 (2%)	39 (78%)	10 (20%)	50
Medium ratings	2	8	7 (14%)	37 (74%)	6 (12%)	50
Low ratings	22	32	12 (24%)	37 (74%)	1 (2%)	50

Note: DI for spreads of loan rates = percentage of respondents selecting "increase" - percentage of respondents selecting "decrease".

AD HOC SURVEY ON LOANS TO DOWNGRADED/UPGRADED FIRMS

What is the share (by value) of loans extended to firms that were downgraded or upgraded in the past three months in your bank's internal credit ratings as a percentage of the total loans in each firm size category?

Respondents were asked to select one option for each firm size category.

1. Loans to downgraded firms

	Number of respondents selecting each option (percentage of respondents selecting each option)					Total
	50% or more	25% or more	10% or more	5% or more	Less than 5%	
Large firms	0 (0%)	0 (0%)	5 (10%)	14 (29%)	30 (61%)	49
Medium-sized firms	0 (0%)	5 (10%)	12 (25%)	11 (22%)	21 (43%)	49
Small firms	0 (0%)	0 (0%)	6 (12%)	18 (37%)	25 (51%)	49

2. Loans to upgraded firms

	Number of respondents selecting each option (percentage of respondents selecting each option)					Total
	50% or more	25% or more	10% or more	5% or more	Less than 5%	
Large firms	0 (0%)	3 (6%)	12 (25%)	12 (25%)	22 (45%)	49
Medium-sized firms	0 (0%)	0 (0%)	18 (37%)	9 (18%)	22 (45%)	49
Small firms	0 (0%)	0 (0%)	7 (14%)	17 (35%)	25 (51%)	49

1) The aggregated loan amount of the fifty reporting banks accounts for approximately 74 percent of average amount of outstanding of the domestic loans of Japanese private banks (city banks, regional banks, regional banksII, trust banks, long-term credit banks, and *shinkin* banks) in the year 2003.

2) Households do not include small firms owned and run by individuals.

3) Local governments include administrations of prefectures and cities, as well as their directly managed businesses such as public transportation, water, electricity and gas utilities, hospitals, and others.

4) Definitions of firm size are as follows. Large: Corporations with capital of ¥1 billion and over with more than 300 regular employees (wholesaling and services firms capitalized at ¥1 billion and over with more than 100 regular employees; and retailing, food and beverage services firms capitalized at ¥1 billion and over with more than 50 regular employees). Small: Corporations with capital of ¥300 million or less or with 300 regular employees or fewer (wholesaling firms capitalized at ¥100 million or less with 100 regular employees or fewer; retailing, food and beverage services and other services firms capitalized at ¥50 million or less with 50 regular employees or fewer (100 or fewer for services firms)). Medium-sized: Corporations which fall between the above two categories.

5) Rating in questions 10 and 13 refers to the banks' internal ratings. These are broad ratings as indicated below. High: AAA-BBB for domestic ratings of long-term corporate bonds. Medium: BB-B for domestic ratings of long-term corporate bonds. Low: CCC or lower for domestic ratings of long-term corporate bonds.

REFERENCES

- Agresti, A.-M. and B. Mojon (2003), “Some stylised facts on the euro area business cycle”, in Angeloni, I., A. Kashyap and B. Mojon (eds) (2003), *Monetary Policy Transmission in the Euro Area*, Cambridge University Press.
- Altunbaç, Y., G. de Bondt and D. Marqués (2004), “Bank capital, bank lending, and monetary policy in the euro area”, *Kredit und Kapital*, 37(4), 443-464.
- Angeloni, I., A. K. Kashyap and B. Mojon (eds) (2003a), *Monetary Policy Transmission in the Euro Area*, Cambridge University Press.
- Angeloni, I., A. K. Kashyap, B. Mojon and D. Terlizzese (2003b), “The output composition puzzle: a difference in the monetary transmission mechanism in the euro area and U.S.”, *Journal of Money, Credit and Banking*, 35(6), 1265-1306.
- Angeloni, I. and M. Ehrmann (2003), “Monetary transmission in the euro area: early evidence”, *Economic Policy*, 37, 469-492.
- Asea, P. K. and S. B. Blomberg (1998), “Lending cycles”, *Journal of Econometrics*, 83(1-2), March-April, 89-128.
- Bank of Japan (2000), Introduction of the “Senior Loan Officer Opinion Survey on Bank Lending Practices at Large Japanese Banks” (“Loan Survey”), 21 April.
- Bank of Japan (2001), Introduction of diffusion indexes to the “Senior Loan Officer Opinion Survey on Bank Lending Practices at Large Japanese Banks”, 26 April.
- Bank of Japan (2003), Revising the list of surveyed banks for the “Senior Loan Officer Opinion Survey on Bank Lending Practices at Large Japanese Banks”, 24 April.
- Bank of Japan (2004), “Senior Loan Officer Opinion Survey on Bank Lending Practices at Large Japanese Banks – October 2004”, 26 October.
- Bassett, W. F. and M. Carlson (2002), “Profits and balance sheet developments at U.S. commercial banks in 2001”, *Federal Reserve Bulletin*, June, 259-288.
- Berger, A. N., and G. F. Udell (2002), “The institutional memory hypothesis and the procyclicality of bank lending behavior”, *Board of Governors of the Federal Reserve System, Finance and Economics Discussion Series*, No 2003-02, December 2002.
- Bergman, M., S. Gerlach and L. Jonung (1992), “External influences in Nordic business cycles: 1870-1988”, *Open Economies Review*, 3(1), 1-22.
- Bernanke, B. S. and A. S. Blinder (1988), “Credit, money, and aggregate demand”, *American Economic Review*, 78(2), May, 435-439.
- Bernanke, B. S. and M. Gertler (1989), “Agency costs, net worth, and business fluctuations”, *American Economic Review*, 79(1), March, 14-31.

- Bernanke, B. S. and M. Gertler (1995), "Inside the black box: the credit channel of monetary policy transmission", *Journal of Economic Perspectives*, 9(1), 27-48.
- Bernanke, B. S. and C. S. Lown (1991), "The credit crunch", *Brookings Papers on Economic Activity*, 2, 204-239.
- Bondt, G. J. de (2000), *Financial Structure and Monetary Transmission in Europe: A Cross-country Study*, Edward Elgar.
- Brunner, A. D. and W. B. English (1993), "Profits and balance sheet developments at U.S. commercial banks in 1992", *Federal Reserve Bulletin*, 79, July, 649-673.
- Döpke, J. (1999), "Stylized facts of Euroland's business cycles", *Jahrbücher für Nationalökonomie und Statistik*, 591-610.
- Duca, J. and B. Garret (1995), "Credit availability, bank consumer lending, and consumer durables", *Federal Reserve Bank of Dallas Working Paper*, No 9514.
- Eckstein, O. and A. Sinai (1986), "The mechanisms of the business cycle in the post-war era", in R. Gordon (ed.) (1986), *The American Business Cycle: Continuity and Change*, University of Chicago Press, 39-122.
- European Central Bank (2000), "Monetary policy transmission in the euro area", *Monthly Bulletin*, July, 43-58.
- European Central Bank (2002), "Recent findings on monetary policy transmission in the euro area", *Monthly Bulletin*, October, 43-53.
- European Central Bank (2003), "New ECB statistics on MFI interest rates", *Monthly Bulletin*, December, 23-25.
- Els, P. J. A. van (1995), "Real business cycle models and money: a survey of theories and stylized facts", *Weltwirtschaftliches Archiv*, 131(2), 223-264.
- Federal Reserve Board (2004), "The October 2004 Senior Loan Officer Opinion Survey on Bank Lending Practices", 15 November.
- Fiorito, R. and T. Kollintzas (1992), "Stylized facts of business cycles in the G7 from a real business cycles perspective", *CEPR Discussion Paper*, No 681.
- Gertler, M. and S. Gilchrist (1993), "The role of credit market imperfections in the monetary transmission mechanism: arguments and evidence", *Scandinavian Journal of Economics*, 109(2), 309-340.
- Greenwald, B. and J. E. Stiglitz (1993), "Financial market imperfections and business cycles", *Quarterly Journal of Economics*, 108(1), 77-114.
- Hall, S. (1999), "Theories and concepts of the credit channel", Bank of England, mimeo, October.

- Hamdani, K., A. P. Rodrigues and M. Varvatsoulis (1994), “Survey evidence on credit tightening and the factors behind the recent credit crunch”, Federal Reserve Bank of New York, *Studies on Causes and Consequences of the 1989-1992 Credit Slowdown*, New York, 211-257.
- Hida, N., K. Fujita, M. Ihara and N. Baba (2002), “What do we learn about current developments in the bank lending market in Japan from BoJ’s Senior Loan Officer Opinion Survey?”, *Bank of Japan Market Review*, No 2002-E-5, December.
- Hull, J., M. Predescu and A. White (2004), “The relationship between credit default swap spreads, bond yields and credit rating announcements”, University of Toronto, Joseph L. Rotman School of Management Working Paper, January.
- Juglar, C. [1862] (1889), *Des crises commerciales et de leur retour périodique en France, en Angleterre et aux Etats-Unis*, 2nd ed. Paris, Guillaumin.
- Kakes, J. (2000), *Monetary Transmission in Europe: The Role of Financial Markets and Credit*, Edward Elgar.
- Karras, G. (1994), “Sources of business cycles in Europe: 1960-1988. Evidence from France, Germany, and the United Kingdom”, *European Economic Review*, 38(9), 1763-1778.
- Kashyap, A., J. Stein and D. Wilcox (1993), “Monetary policy and credit conditions: evidence from the composition of external finance”, *American Economic Review*, 83(1), March, 79-98.
- Keeton, W.R. (1999), “Does faster loan growth lead to higher loan losses?”, *Federal Reserve of Kansas City Economic Review*, second quarter, 57-75.
- Kennedy, P. (1998), *A Guide to Econometrics*, Blackwell.
- Keynes, J. M. (1936), *The General Theory of Employment, Interest, and Money*.
- Kiyotaki, N. and J. Hardman-Moore (1997), “Credit cycles”, *Journal of Political Economy*, 105(2), April, 211-249.
- Kohler, M., E. Britton and T. Yates (2000), “Trade credit and the monetary transmission mechanism”, *Bank of England Working Paper Series*, No 115, June.
- Lown, C. S. (1990), “Banking and the economy: what are the facts?”, *Federal Reserve Bank of Dallas Economic Review*, September, 1-14.
- Lown, C., D. P. Morgan and S. Rohatgi (2000), “Listening to loan officers: the impact of commercial credit standards on lending and output”, *Federal Reserve Bank of New York Economic Policy Review*, 6(2), July, 1-16.
- Lown, C. S. and D. P. Morgan (2002), “Credit effects in the monetary mechanism”, *Federal Reserve Bank of New York Economic Policy Review*, 8(1), 217-235.

- Lown, C. S. and D. P. Morgan (2004), “The credit cycle and the business cycle: new findings using the Loan Officer Opinion Survey”, *Stockholm Institute for Financial Research Research Report Series*, No 27.
- Manski, C. F., (2004), “Measuring expectations”, *Econometrica*, 72(5), 1329-1376.
- Niehans, J. (1992), “Juglar’s credit cycles”, *History of Political Economy*, 24(3), 545-569.
- Nilsen, J. H. (2002), “Trade credit and the bank lending channel”, *Journal of Money, Credit and Banking*, 34(1), 226-253.
- Ortega, E. (1998), “The Spanish business cycle and its relationship to Europe”, *Bank of Spain Working Paper*, No 9819.
- Pazarbasioglu, C. (1997), “A credit crunch? Finland in the aftermath of the banking crisis”, *IMF Staff Papers*, 44(3), 315-327.
- Peek, J. and E. Rosengren (1995), “The capital crunch: neither a borrower nor a lender be”, *Journal of Money, Credit, and Banking*, 27(3), 625-638.
- Poole, W. (1993), “Credit veils and credit realities”, *Federal Reserve Bank of New York Quarterly Review*, 18(1), 83-85.
- Rixtel, A. van (2002), *Informality and Monetary Policy in Japan: The Political Economy of Bank Performance*, Cambridge University Press.
- Rixtel, A. van, Y. Wiwattanakantang, T. Souma and K. Suzuki (2004), “Banking in Japan: will too big to fail prevail?”, in B. Gup (ed.) (2004), *Too Big to Fail: Policies and Practices in Government Bailouts*, Praeger, 253-283.
- Romer, C. D. and D. H. Romer (1990), “New evidence on the monetary transmission mechanism”, *Brookings Papers on Economic Activity*, 1990(1), 149-213.
- Schreft, S. L. and R. E. Owens (1991), “Survey evidence of tighter credit conditions: what does it mean?”, *Federal Reserve Bank of Richmond Working Paper Series*, No 91-5.
- Schreft, S. L. and R. E. Owens (1995), “Identifying credit crunches”, *Contemporary Economic Policy*, 13(2), 63-76.
- Sharpe, S. A. (1995), “Bank capitalization, regulation, and the credit crunch: a critical review of the research findings”, *Board of Governors of the Federal Reserve System Finance and Economics Discussion Series*, No 95/20.
- Sinai, A. (1993), “Financial and credit cycles: generic or episodic?”, *Federal Reserve Bank of New York Quarterly Review*, 18(1), 40-45.
- Stanca, L. and M. Gallegati (1998), “The historical properties of Italian macroeconomic fluctuations: are business cycles all alike?”, *Rivista Internazionale di Scienze Sociali*, 106(2), April-June, 119-137.

- Stiglitz, J. E. and A. Weiss (1981), "Credit rationing in markets with imperfect information", *American Economic Review*, 71(3), June, 393-410.
- Suzuki, T. (2004), "Credit channel of monetary policy in Japan: resolving the supply versus demand puzzle", *Applied Economics*, 36(21), 2385-2396.
- Vihriälä, V. (1997), "Banks and the Finnish credit cycle 1986-1995", *Bank of Finland Studies*, No E:7.
- Weinberg, J. A. (1995), "Cycles in lending standards", *Federal Reserve Bank of Richmond Economic Quarterly*, 81(3), Summer, 1-18.
- Wojnilower, A. M. (1980), "The central role of credit crunches in recent financial history", *Brookings Papers on Economic Activity*, 1980(2), 277-340.
- Wojnilower, A. M. (1985), "Private credit demand, supply and crunches: how different are the 1980s?", *American Economic Review*, 75(2), May, 351-356.
- Wojnilower, A. M. (1997), Business cycles in a financially deregulated America, conference paper, "Monetary Theory as a Basis for Monetary Policy", September 4-7, Trento, Italy.
- Wolfson, M. H. (1994), *Financial Crises: Understanding the Postwar U.S. Experience*, second edition, Sharpe.
- Wolfson, M. H. (1996), "A post Keynesian theory of credit rationing", *Journal of Post Keynesian Economics*, 18(3), 443-470.
- Woo, D. (1999), "In search of 'capital crunch': supply factors behind the credit slowdown in Japan", *IMF Working Paper*, No 99/03.

**EUROPEAN CENTRAL BANK
OCCASIONAL PAPER SERIES**

- 1 “The impact of the euro on money and bond markets” by J. Santillán, M. Bayle and C. Thygesen, July 2000.
- 2 “The effective exchange rates of the euro” by L. Buldorini, S. Makrydakis and C. Thimann, February 2002.
- 3 “Estimating the trend of M3 income velocity underlying the reference value for monetary growth” by C. Brand, D. Gerdesmeier and B. Roffia, May 2002.
- 4 “Labour force developments in the euro area since the 1980s” by V. Genre and R. Gómez-Salvador, July 2002.
- 5 “The evolution of clearing and central counterparty services for exchange-traded derivatives in the United States and Europe: a comparison” by D. Russo, T. L. Hart and A. Schönenberger, September 2002.
- 6 “Banking integration in the euro area” by I. Cabral, F. Dierick and J. Vesala, December 2002.
- 7 “Economic relations with regions neighbouring the euro area in the ‘Euro Time Zone’” by F. Mazzaferro, A. Mehl, M. Sturm, C. Thimann and A. Winkler, December 2002.
- 8 “An introduction to the ECB’s survey of professional forecasters” by J. A. Garcia, September 2003.
- 9 “Fiscal adjustment in 1991-2002: stylised facts and policy implications” by M. G. Briotti, February 2004.
- 10 “The acceding countries’ strategies towards ERM II and the adoption of the euro: an analytical review” by a staff team led by P. Backé and C. Thimann and including O. Arratibel, O. Calvo-Gonzalez, A. Mehl and C. Nerlich, February 2004.
- 11 “Official dollarisation/euroisation: motives, features and policy implications of current cases” by A. Winkler, F. Mazzaferro, C. Nerlich and C. Thimann, February 2004.
- 12 “Understanding the impact of the external dimension on the euro area: trade, capital flows and other international macroeconomic linkages” by R. Anderton, F. di Mauro and F. Moneta, March 2004.
- 13 “Fair value accounting and financial stability” by a staff team led by A. Enria and including L. Cappiello, F. Dierick, S. Grittini, A. Maddaloni, P. Molitor, F. Pires and P. Poloni, April 2004.
- 14 “Measuring Financial Integration in the Euro Area” by L. Baele, A. Ferrando, P. Hördahl, E. Krylova, C. Monnet, April 2004.

- 15 “Quality adjustment of European price statistics and the role for hedonics” by H. Ahnert and G. Kenny, May 2004.
- 16 “Market dynamics associated with credit ratings: a literature review” by F. Gonzalez, F. Haas, R. Johannes, M. Persson, L. Toledo, R. Violi, M. Wieland and C. Zins, June 2004.
- 17 “Corporate ‘Excesses’ and financial market dynamics” by A. Maddaloni and D. Pain, July 2004.
- 18 “The international role of the euro: evidence from bonds issued by non-euro area residents” by A. Geis, A. Mehl and S. Wredenberg, July 2004.
- 19 “Sectoral specialisation in the EU a macroeconomic perspective” by MPC task force of the ESCB, July 2004.
- 20 “The supervision of mixed financial services groups in Europe” by F. Dierick, August 2004.
- 21 “Governance of securities clearing and settlement systems” by D. Russo, T. Hart, M. C. Malaguti and C. Papathanassiou, October 2004.
- 22 “Assessing potential output growth in the euro area, a growth accounting perspective” by A. Musso and T. Westermann, January 2005.
- 23 “The bank lending survey for the euro area” by J. Berg, A. van Rixtel, A. Ferrando, G. de Bondt and S. Scopel, February 2005.

