

Negative interest rate policy period and pandemic as reflected in the Bank Lending Survey

The Eurosystem's Bank Lending Survey (BLS) is a key source of information for assessing banks' lending policies and developments in loan demand. BLS data on loan supply and demand provide a snapshot of the financing situation for non-financial corporations and households in both Germany and the euro area. Ad hoc questions, furthermore, are a way of quickly evaluating the impact of monetary policy measures on the financing situation and of thus gaining timely feedback on key questions for monetary policy transmission.

This article illustrates the role played by the BLS from 2014 to the present day, a horizon that covers the negative interest rate policy (NIRP) period, the coronavirus pandemic and, more recently, the high inflation rates and Russia's attack on Ukraine. During this very challenging period, the BLS has, for example, provided information on how the monetary policy measures during the NIRP period had a supportive effect on banks' lending policies. It has shown that the increased credit risk during the pandemic led to banks tightening their lending policies. BLS data provided insights into how it was possible to moderate these tightenings by means of accommodative monetary policy measures and what effects the government support for corporate financing had during the pandemic-induced lockdowns. More recently, the BLS has given indications of how the high inflation and Russia's war on Ukraine have changed loan supply and demand. These and other insights from the BLS served as key inputs in the ECB Governing Council's monetary policy decision-making process and in the economic policy debate at the national level.

Looking ahead, findings from the BLS will continue to make an important contribution to monetary policy design in a setting of persistently disrupted supply chains and highly elevated inflation rates. One important question for monetary policymakers is how the banks will respond to the increase in credit risk brought about by the war against Ukraine and its extensive macroeconomic fallout, while the effects of the normalisation of monetary policy will also be of particular interest.

■ Introduction

Monetary policy challenges during the NIRP period and pandemic

The last decade represented a very challenging period for the Eurosystem's monetary policy. The spell of low inflation saw a very significant lowering of monetary policy interest rates – even into negative territory in the case of the deposit facility rate – and the ECB Governing Council took a raft of non-standard monetary policy measures. Further monetary policy challenges have materialised recently in the shape of the pandemic, Russia's war on Ukraine and the high levels of inflation. During these periods, it was crucial from a monetary policy perspective that the financing of the private non-financial sector should remain secure and that monetary policy transmission should not be disrupted by funding obstacles. A material role in the ongoing monitoring and assessment of the financing situation was played by the Eurosystem's BLS.

BLS data allow timely assessment of financing situation ...

The BLS has proven to be a valuable tool for assessing, in a timely manner, banks' lending policies and the developments in loan demand in Germany and the euro area. The interplay between loan supply and demand, as indicated by BLS data, provides a snapshot of the financing situation in both the euro area and Germany. Ad hoc questions, furthermore, are a way of quickly evaluating the impact of monetary policy measures on the financing situation, say, and of thus gaining timely feedback on key questions for monetary policy transmission.

... by shedding light on the interplay of loan demand, ...

The BLS regularly gives information on developments in loan demand in the previous quarter and provides an outlook for expected demand in the next three months. The factors for loan demand surveyed in the BLS shed light on the purpose of and forces driving loan demand, and can be interpreted to understand how monetary policy has affected loan demand, for example. Other key information includes, for instance, whether enterprises are primarily looking to finance fixed investment, how important the current interest rate level is for demand developments, and whether it is mainly

liquidity bottlenecks that need to be bridged in crisis situations.

The BLS focuses mainly on banks' lending policies, however. Banks surveyed under the BLS are also asked to report on current changes to their lending policies, adjustments they are planning for the near future, and the various reasons for adjustments. Banks' plans to adjust their lending policies have proven to be a good leading indicator for explaining later developments. A tightening of lending policies – such as during the financial crisis – can be explained either by bank-side factors, i.e. constraints on banks' balance sheets or their financing, or the reason may lie with the borrowers – a tightening of policies may be triggered, for example, by increased credit risk resulting from a deterioration in the macroeconomic situation. Increasing competition in the banking sector, meanwhile, can have an easing effect on lending policies.

... lending policies and ...

Ad hoc questions in the BLS provide timely indications of how individual monetary policy measures are reflected in banks' lending policies and whether they affect loan volumes. They are also used to collect information on how the measures affect banks' profitability and financing situations. The BLS thus plays a crucial role in identifying isolated effects of various monetary policy measures on individual indicators. BLS data can also feed into an overall assessment of the desired effects of monetary policy measures in conjunction with any side effects.

... the impact of monetary policy measures

This article outlines how BLS data on loan demand, lending policies, the impact of monetary policy measures and banks' financing situations have evolved since 2014 in Germany and the euro area.¹ It begins by looking at the NIRP period up to the onset of the pandemic, before zooming in on the pandemic from the begin-

Developments in the BLS during the NIRP period, the pandemic and the war against Ukraine

¹ For further information on how the BLS is conducted and evaluated, see the box on pp. 20 f.; further details on the ad hoc questions included in the BLS can be found in the box on p. 23.

ning of 2020 as a subset of the NIRP period. The third period under observation begins with the war against Ukraine in the first quarter of 2022 and extends up to the present day.

NIRP period and pandemic reflected in results of the BLS

BLS banks' lending policies were characterised by easing measures during the NIRP period up to the onset of the pandemic, as demand for bank loans steadily increased. BLS data indicate that banks' financing conditions improved, partly as a result of monetary policy measures taken to tackle the too-low inflation rate. At the same time, however, the negative interest rate on the deposit facility and the Eurosystem's expanded asset purchase programme (APP) each had a negative impact on balance on banks' profitability, according to BLS data. Taken in isolation, the pandemic then led to banks tightening their lending policies in response to the increased credit risk. This coincided with a sharp uptick in demand for bank loans. Government-guaranteed loans and monetary policy measures succeeded in mitigating the tense financing situation for enterprises. This period saw banks make broad use of the third series of targeted longer-term refinancing operations (TLTRO III) as a low-cost source of funding. Against the backdrop of the war against Ukraine and increased macroeconomic risks, the BLS data show that the period of tightening lending policies that began during the pandemic continued. Given the high inflation rates, it is currently in the interest of monetary policy for lending policies to be tightened.

NIRP period up to the onset of the pandemic

Inflation target persistently undershot during the NIRP period

The NIRP period in the euro area began in June 2014 when the interest rate on the deposit facility was lowered into negative territory. In an effort to return inflation from a very low level to rates below, but close to, 2% in the medium term,² the ECB Governing Council took a raft of accommodative measures, implementing reductions in key interest rates, new refinancing

operations (TLTROs) and purchase programmes to ease monetary and financial conditions³ and enhance the functioning of the monetary policy transmission mechanism.⁴ By including ad hoc questions in the BLS, it was possible to assess, in a timely manner, how each of the Eurosystem's non-standard measures were affecting lending.

Three series of TLTROs have been conducted since 2014.⁵ These measures were intended to stimulate bank lending to non-financial corporations and households (excluding loans for house purchase) in order to invigorate demand and thus bolster inflation. Before these operations were implemented, the BLS was showing that lending policies had been tightened and loan demand in the euro area as a whole had fallen during the European sovereign debt crisis. The TLTROs offered the banks favourable financing conditions plus a set of incentives that rewarded lending to these sectors with an additional interest discount, provided certain conditions were satisfied. Alongside the TLTROs, asset purchases under the APP⁶ commenced in 2015, and the latter programme was expanded in 2016 to include the corporate sector purchase programme (CSPP).⁷ In addition, the initial reduction of the deposit facility rate into negative territory was followed by four further reductions that took the rate down to -0.50%.

Accommodative monetary policy measures: TLTROs, APP, negative deposit facility rate

² See, for example, European Central Bank (2016a). This was the inflation target until the new monetary policy strategy was adopted in 2021.

³ See European Central Bank (2015).

⁴ See European Central Bank (2014).

⁵ The first TLTRO series ran from September 2014 to June 2016, the second from June 2016 to March 2017, and the third from September 2019 to December 2021. Details can notably be found in European Central Bank (2014, 2016b, 2019a).

⁶ See European Central Bank (2015). The covered bond purchase programme (CBPP3) and the asset-backed securities purchase programme (ABSPP) were continued under the APP. In addition, subject to certain conditions, there were purchases of bonds issued by euro area central governments, agencies and European institutions under the public sector purchase programme (PSPP).

⁷ See European Central Bank (2016a).

Conducting and evaluating the Bank Lending Survey

The Bank Lending Survey (BLS) aims to provide a more comprehensive understanding of the monetary policy transmission process via the banking sector, thereby supporting monetary policy decisions. At present, 33 banks in Germany and a total of 153 euro area banks participate in the survey, which the Eurosystem has conducted in the euro area since 2003. The samples are representative.¹ The survey regularly asks high-level representatives of participating banks for up-to-date information on their lending policies and for an assessment of institution-specific credit demand. For lending policy, a distinction is made between credit standards as the minimum requirement for loan approval and the credit terms and conditions as laid down in the loan contract. In addition, BLS banks provide information on the factors they believe are driving developments in credit demand and lending policy. All data are collected separately for loans to enterprises² and loans to households. Loans to enterprises are broken down by enterprise size, while loans to households are split into loans to households for house purchase and consumer credit and other lending.³ Participant banks are asked, first, about the developments they have seen over the past three months and, second, about the changes they expect to take place over the next three months. In addition to the regular questionnaire, ad hoc questions are also used to gather assessments of non-standard monetary policy measures or special topics with short-term relevance, for example.

Current lending policy and demand are assessed – as is the case, in principle, for all other questions – as quarterly changes (excluding seasonal fluctuations in demand). Here, five possible responses⁴ are given in the form of trend statements. In all euro

area countries, the individual responses given by the banks participating in the survey are aggregated on a question-by-question basis to national results.⁵ Net percentages⁶ are calculated for each question in the regular questionnaire. The survey re-

1 The banks in the German sample are mapped to the following banking groups: big banks, regional banks, Landesbanken, savings banks, credit cooperatives, private mortgage banks and banks with special, development and other central support tasks. To obtain an approximately representative sample of the German banking sector as a whole, the share of the banks in the sample for each banking group is based on the banking group's respective share in the German banking sector's overall lending volume.

2 Enterprises are understood to be non-financial corporations for the purposes of the BLS.

3 According to the compilation guide that accompanies the BLS questionnaire, this category includes not only traditional loans granted for personal consumption but also overdrafts and credit card loans as well as loans to sole proprietors and partnerships (not quasi-corporations) and to non-profit institutions serving households.

4 For supply-related questions, the scale comprises the following possible answers: "tightened considerably", "tightened somewhat", "remained basically unchanged", "eased somewhat" and "eased considerably". For demand-related questions, the range comprises "increased considerably", "increased somewhat", "remained basically unchanged", "decreased somewhat" and "decreased considerably".

5 When aggregating responses at the national level, the data of all banks in a country's sample are weighted equally. Two countries additionally calculate aggregates by weighting banks' responses with their respective share of the loan portfolio of the country in question.

6 For supply-related questions, the net percentage 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" (as a percentage of responses given). Positive net percentages thus indicate tightened standards, while negative values indicate a loosening of standards. For demand-related questions, the net percentage refers to the difference between the sum of the percentages for "increased considerably" and "increased somewhat" and the sum of the percentages for "decreased somewhat" and "decreased considerably". Positive net percentages thus indicate increased demand, while negative values indicate decreased demand. In addition to net percentages, averages for responses across all banks and diffusion indices are also calculated. The latter are calculated much like net percentages, the difference being that the "somewhat" answers are only given a weight of 0.5.

sults for Germany are regularly published and analysed by the Bundesbank. For the ad hoc questions, too, net percentages are calculated and published wherever possible, or alternative aggregation measures are applied on a question-by-question basis. Data provided by all participating euro area institutions are included in the euro area aggregate calculated by the European Central Bank (ECB).⁷

The standard questionnaire was revised and expanded again in 2022 following a major reform in 2015.⁸ Extensions to the questionnaire must always be carefully considered, as potential information gains from a more nuanced line of questioning invariably entail greater effort on the part of the respondent banks. This time around, the changes primarily consisted of a more comprehensive survey of explanatory factors, the aim of which is to yield valuable additional information for monetary policy makers.

- For loans to enterprises, the question on explanatory factors is broken down further for credit terms and conditions as a whole as well as for lending margins as a constituent part of these from the April 2022 survey round onwards (reference period: Q1 2022). As was already the case for credit standards for loans to enterprises, the factors consist of four headings under which the respective sub-factors are summarised: first, “Cost of funds and balance sheet constraints”, broken down into “Your bank’s capital and the costs related to your bank’s capital position”, “Your bank’s ability to access market financing (e.g. money or bond market financing, incl. true-sale securitisation)” and “Your bank’s liquidity position”; second, “Pressure from competition”, subdivided into “Competition from other banks”, “Competition from non-banks” and “Competition from market financing”; third, “Perception of risk”,

split into “General economic situation and outlook”, “Industry or firm-specific situation and outlook/borrower’s credit-worthiness” and “Risk related to the collateral demanded”; and fourth, “Your bank’s risk tolerance”.

- For the credit standards on loans to households for house purchase as well as consumer credit and other lending, this more detailed breakdown has also been introduced for the previously aggregated factor “Cost of funds and balance sheet constraints” from the April 2022 survey round onwards.
- Since this round, factors influencing the development of demand for loans to enterprises have additionally been sorted by enterprise size.
- Also since the April 2022 round, changes in the rejection rate of enterprises’ loan applications have been broken down by enterprise size. As already explained in the compilation guide,⁹ it is now also explicitly stated in the question that the response should cover both formal and informal loan applications.

The questionnaire (standard questions), including the ad hoc questions of the given survey round as well as the compilation guide, can be found on the Bundesbank’s website at <https://www.bundesbank.de/en/tasks/monetary-policy/economic-analyses/-/bank-lending-survey-for-germany-618070>.

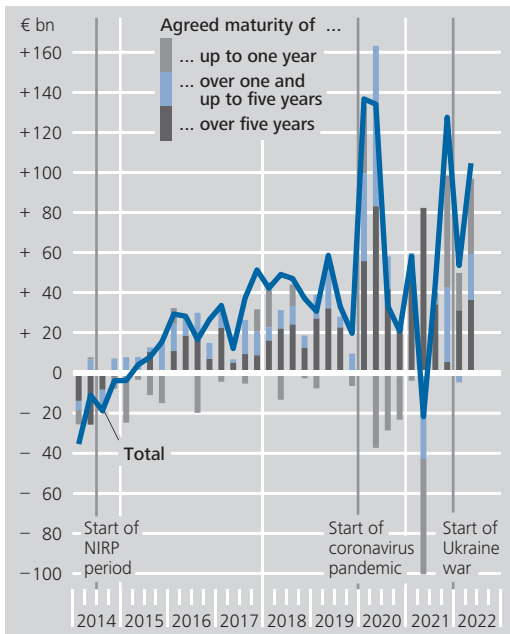
⁷ Survey results for the euro area can be found on the website of the ECB at https://www.ecb.europa.eu/stats/ecb_surveys/bank_lending_survey/html/index.en.html.

⁸ The ad hoc questions did not feature in this reform concept as they are already revised and adjusted regularly.

⁹ See <https://www.bundesbank.de/resource/blob/602650/eb4f03f4741d8086e4fbfe92773fbb1e/mL/bank-lending-survey-fragebogen-erlaeuterungen-data.pdf> (in German only).

Loans to non-financial corporations in the euro area*

3-month accumulated flows, end-of-quarter data, seasonally adjusted



Source: ECB. * Non-financial corporations and quasi-corporations. Aggregate adjusted for loan sales and securitisation as well as for positions arising from notional cash pooling services provided by MFIs.

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Loan demand

Demand for loans to enterprises increasing steadily during the NIRP period

In keeping with monetary policymakers' intentions, the historically low level of interest rates supported demand for bank loans, as indicated in the balance sheet statistics data (see the above chart) and in the results of the BLS (see the chart on p. 24). Banks' assessments of developments in demand as part of the BLS can indicate how loans actually evolve in a particular quarter before the data from the balance sheet statistics become available. This is because BLS data are already available at the beginning of the following quarter, while balance sheet statistics data are only normally published around four weeks after the end of the respective reporting month.

According to the BLS, demand for bank loans in Germany, and also in the euro area as a whole, increased almost without interruption during the NIRP period up to the onset of the

pandemic.⁸ Enterprises were mainly interested in taking out long-dated⁹ loans as a way of locking in the low interest rates for the long term. These funds were channelled primarily into fixed investment, which is a form of investment that normally takes place when the economy is in good shape. Rising fixed investment helped shore up inflation, as intended by the ECB Governing Council. BLS responses showed that bank loan demand was being dampened, however, by firms tapping their internal financing options, which were broader on account of the generally upbeat state of the economy.

Similarly, households in Germany and the euro area as a whole also took advantage of the negative interest rate environment to take out more bank loans. The surveyed banks mainly put this down to the low level of interest rates as well as increased consumer confidence. Borrowers' assessment that prospects were good in the housing market also drove demand for loans for house purchase to a considerable extent. Demand for consumer credit and other lending is also likely to have been supported by the positive economic developments and the good outlook in the labour market over this period. Above all, consumers spent more money on durable consumer goods than before. By contrast, household demand among the surveyed banks was dampened by households' use of their own savings. The surveyed banks in Germany reported a temporary dampening of demand for loans for house purchase in 2016. This was because the German Act Implementing the Mortgage Credit Directive and Amending Accounting Rules (*Gesetz zur Um-*

Loan demand from households also increased during the NIRP period

⁸ The BLS compilation guide explains that, for the purposes of the BLS, demand refers to nominal gross demand compared with the previous quarter, apart from normal seasonal fluctuations. It refers to the bank loan financing need of enterprises and households, independent of whether this need will result in a loan or not. Loan requests made in parallel with multiple BLS institutions may significantly increase loan demand as recorded in the BLS and thus overstate actual demand developments. Information on the reasons given for changes in loan demand is fraught with uncertainty because bank managers can only indirectly assess the key reasons for borrowers' decisions.

⁹ Loans with an original maturity of more than one year, according to the BLS compilation guide.

Ad hoc questions in the Bank Lending Survey

In addition to the regular standard questions, the Bank Lending Survey questionnaire contains a number of ad hoc questions that are used to obtain timely information on current issues relevant to monetary policy. The content and frequency of the ad hoc questions can be adjusted as required. In recent years, for example, questions have been asked on topics such as banks' financing situations, non-standard monetary policy measures, the effects of non-performing loans on lending policies, and government-guaranteed assistance loans during the coronavirus pandemic. At present, seven sets of questions are asked alternately on a quarterly, semi-annual or annual basis. The responses to the ad hoc questions provide the Eurosystem with information at points in time for which there are not yet sufficient data available from

other sources to allow for a more in-depth empirical analysis.

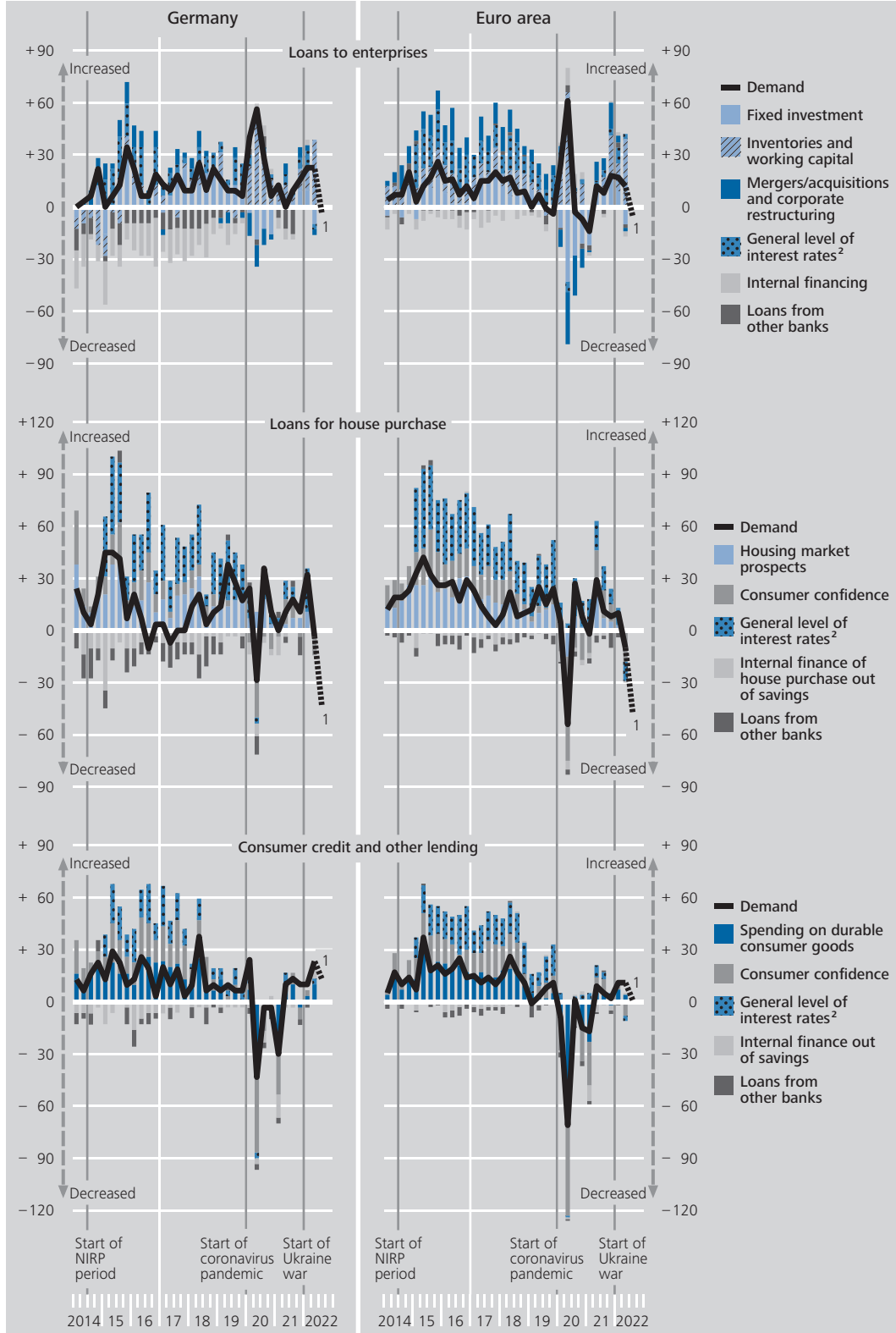
Overview of ad hoc questions

Question	Asked from ... to ... (reference period) ¹	Frequency
Banks' financing situation	Since Q4 2009	Quarterly
Regulatory measures	Since H1 2011	Semi-annually until 2019, annually thereafter
Level of credit standards	2014 to 2019	Annually
Targeted longer-term refinancing operations	Q3 2014 to Q2 2017; since H2 2019	Quarterly/semi-annually
Eurosystem expanded asset purchase programme	Since Q4 2014/Q1 2015	Semi-annually
Negative deposit facility rate	Since Q4 2015/Q1 2016	Semi-annually
Impact of non-performing loans on lending policies	Since H1 2018	Semi-annually
Lending policies in individual economic sectors	Since H1 2020	Semi-annually
Government-guaranteed assistance loans during the pandemic	2020 to 2021	Semi-annually

¹ In the January round of the survey, information was collected for the following reference periods: Q4 of the previous year (quarterly questions), H2 of the previous year (semi-annual questions), and the entire previous year (annual questions). The same applies to the April, July and October rounds of the survey. In addition, most questions ask about expectations relating to the following quarter, half year, or year.

Changes in loan demand* and selected explanatory factors**

As a percentage of responses given (net)



* Difference between the sum of the percentages of banks responding "increased considerably" and "increased somewhat" and the sum of the percentages of banks responding "decreased somewhat" and "decreased considerably". ** Difference between the sum of the percentages of banks responding "contributed considerably to higher demand" and "contributed somewhat to higher demand" and the sum of the percentages of banks responding "contributed somewhat to lower demand" and "contributed considerably to lower demand". 1 Expectations for Q3 2022. 2 Surveyed since Q1 2015.

setzung der Wohnimmobilienkreditrichtlinie und zur Änderung handelsrechtlicher Vorschriften) entered into force in March 2016, which led some of the potential borrowers to refrain from making loan requests owing to banks' higher requirements.

Lending policies

*Credit standards
 the key indicator
 for lending
 policy*

Credit standards are the key indicator for the lending behaviour of the banks surveyed under the BLS. These are the bank-specific minimum requirements potential borrowers need to meet in order to be granted a loan.¹⁰ The BLS banks furthermore provide information on the terms and conditions of the loan actually approved as laid down in the loan contract. These generally consist of the agreed spread over the relevant reference interest rate (margin), the size of the loan, the access conditions and other terms and conditions in the form of non-interest rate charges (i.e. fees), collateral or guarantees which the respective borrower needs to provide (including compensating balances), loan covenants and the agreed loan maturity. There is no summary measure for the respective level of credit standards and credit terms and conditions. The BLS addresses this challenge by surveying quarter-on-quarter changes in lending policy. To compare levels at different points in time, the changes can be summed up (cumulated)¹¹ over a longer period of time. Developments in credit standards – and also in BLS demand – are of particular relevance to monetary policy, as they are a leading indicator for the future path of loans.¹²

*Credit standards
 eased more
 strongly in euro
 area than in
 Germany during
 the NIRP period*

Having massively tightened their credit standards following the onset of the financial crisis in 2007, the institutions surveyed under the BLS then adjusted them only moderately over several years (see the chart on p. 26). During the NIRP period, the credit standards for loans to enterprises and for consumer credit and other lending to households were then repeatedly eased slightly until the end of 2018. These adjustments were consistent with the aim of the

accommodative monetary policy, which was to increase inflation by stimulating consumption and credit growth. The favourable financing situation for enterprises and households contributed to a steady increase in loan demand, according to BLS banks' assessment. The BLS banks in the euro area as a whole eased their lending policies more significantly than those in Germany. Banks in the euro area thus reversed some of the tightening that had been ongoing until 2014, while German banks had not tightened their credit standards during this period. Survey participants mainly put their easing down to the tense competitive situation with rival institutions from the banking and non-banking sectors (see the chart on p. 27). In addition, the BLS banks in the euro area explicitly reported that the APP was having an expansionary effect on their credit standards for loans to enterprises and on their loan volumes¹³ (see the chart on p. 38). Moreover, the banks participating in the TLTROs in Germany and in the euro area alike reported that they had used the funds primarily for lending to enterprises and households, consistent with the monetary policy purpose of the measure. This

¹⁰ Credit standards are established prior to the actual loan negotiation on the terms and conditions and the actual loan approval/rejection decision. They define the types of loan a bank considers desirable and undesirable, the designated sectoral or geographic priorities, the collateral deemed acceptable and unacceptable, etc. Credit standards specify the required borrower characteristics (e.g. balance sheet conditions, income situation, age, employment status) under which a loan can be obtained.

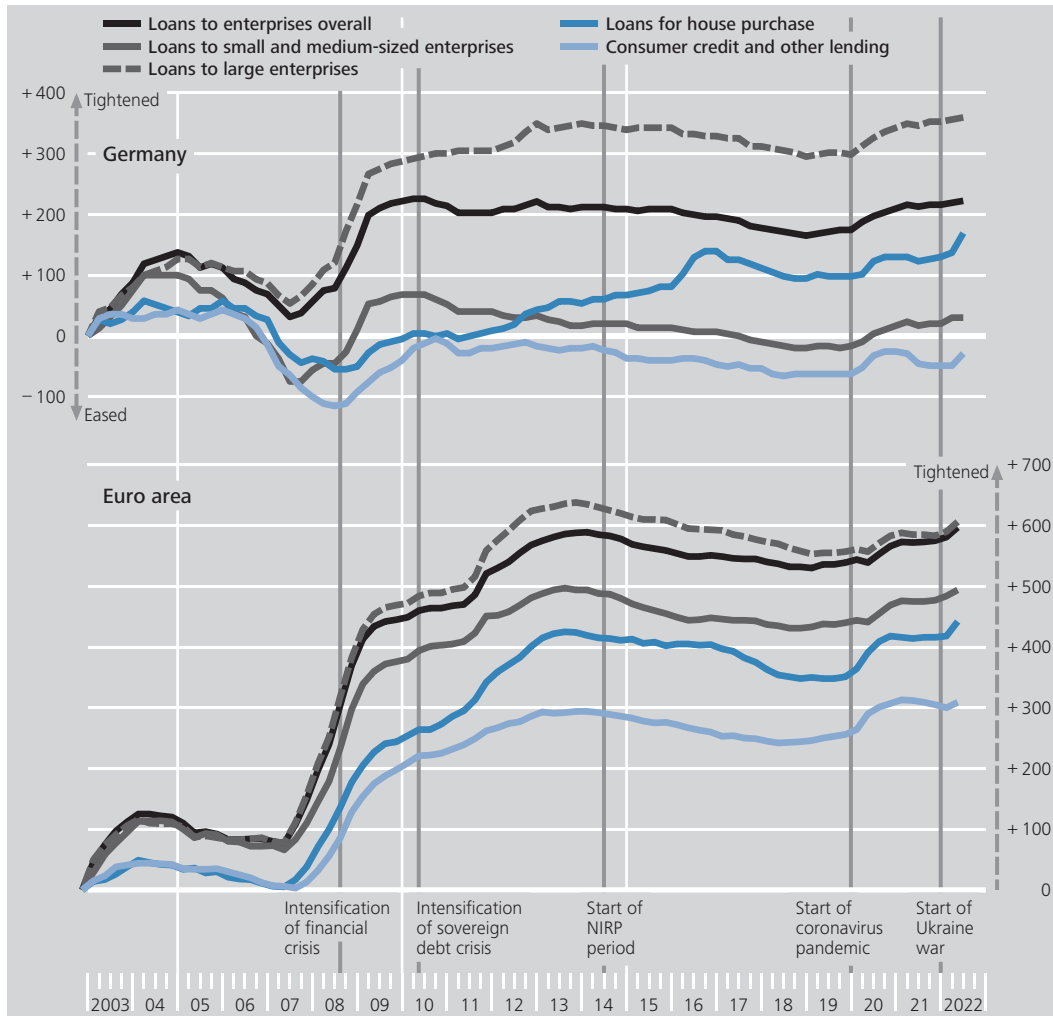
¹¹ This method does, however, have some weaknesses and should therefore only be regarded as a rough measure. The level of credit standards prevailing when the survey was launched in 2003 is unknown. Ideally, cumulation should be measured against a benchmark with a "neutral" level which, however, it is impossible to identify. Comparisons between individual banks or credit segments are out of the question since it cannot be assumed that the respective starting levels were identical. Between 2014 and 2019, one ad hoc question was asked each year on the current level of credit standards relative to certain periods in the past. However, this question was removed again because it became increasingly difficult over time to assess the level. See Deutsche Bundesbank (2014) for a discussion of the cumulation method and a presentation of the results of the ad hoc question on the level of credit standards.

¹² See the box on the BLS's role as a lead of lending on pp. 28 ff.

¹³ The impact of the APP on loan volumes has been surveyed since the fourth quarter of 2017/first quarter of 2018.

Cumulative changes in credit standards since the start of the BLS

Cumulative net percentage shares¹



¹ Difference between the sum of the percentages of banks responding “tightened considerably” and “tightened somewhat” and the sum of the percentages of banks responding “eased somewhat” and “eased considerably”, summated from Q1 2003 to the respective point in time.

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suggests that the TLTROs, too, have had a volume-enhancing effect, even if the banks reported that the TLTRO funds had often been used to replace other sources of funding.¹⁴ The BLS has thus provided timely indications that the monetary policy measures had a desired accommodative effect on the financing conditions of enterprises and households.

A regulatory one-off effect meant that in Germany, unlike in the euro area as a whole, the competition-induced period of easing credit standards for loans for house purchase did not set in until 2017. As a result of the implementation of the Mortgage Credit Directive into Ger-

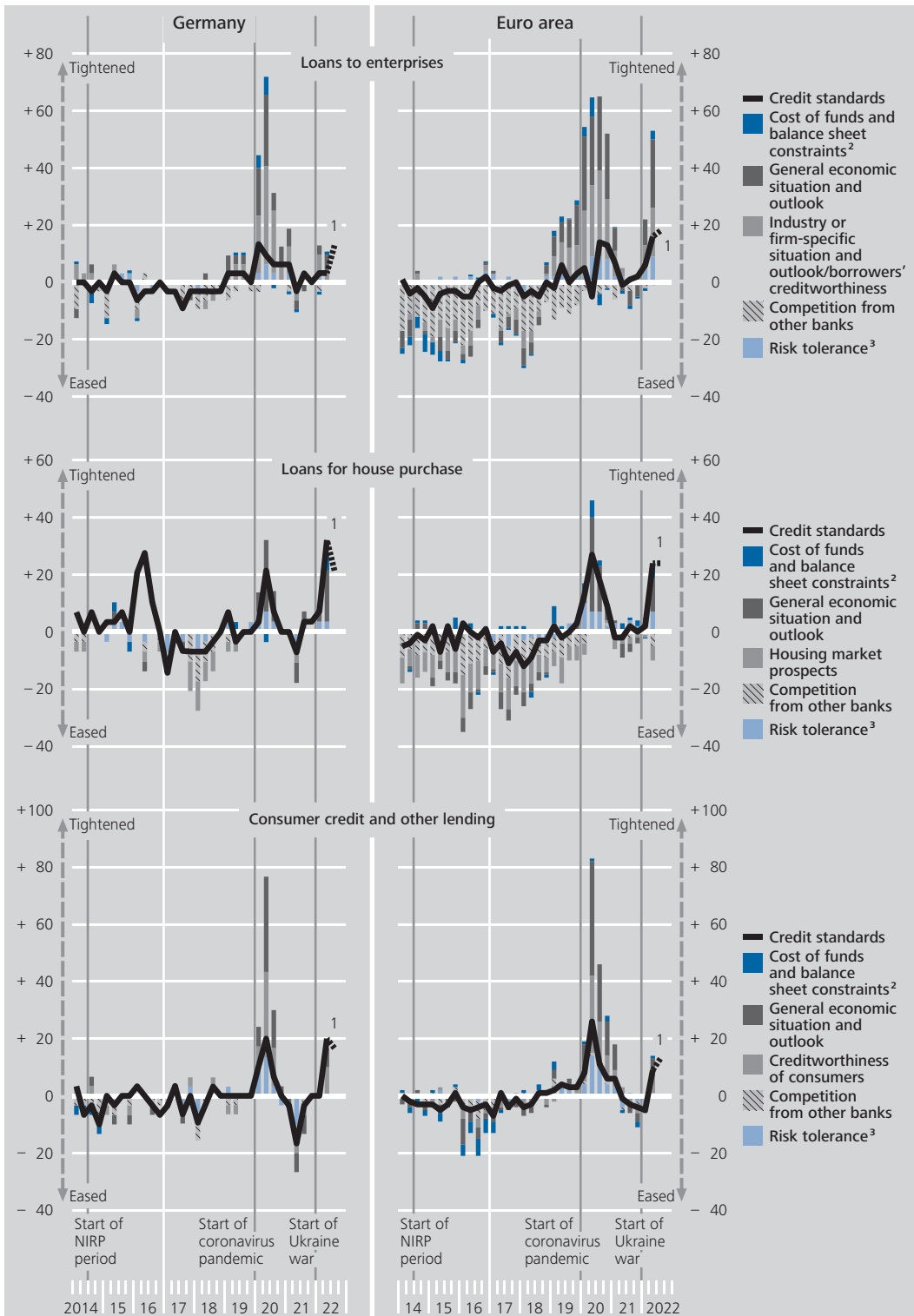
man law, 2016 saw a large proportion of the German institutions surveyed under the BLS tighten their credit standards over multiple quarters. The surveyed institutions reported that the provisions under this legislation increased the inspection and documentation requirements for loans granted for house purchase.¹⁵

¹⁴ The question of how the TLTROs affected loan volumes was not asked until 2019 (TLTRO III).

¹⁵ The provisions of the legislation govern matters including consumer protection information and a requirement under supervisory and civil law to conduct a credit assessment. These provisions are supplemented by a differentiated system of sanctions under civil law in the event of a breach of this obligation. See also Deutsche Bundesbank (2016).

Changes in credit standards* and selected explanatory factors**

As a percentage of responses given (net)



* Difference between the sum of the percentages of banks responding "tightened considerably" and "tightened somewhat" and the sum of the percentages of banks responding "eased somewhat" and "eased considerably". ** Difference between the sum of the percentages of banks responding "contributed considerably to tightening of credit standards" and "contributed somewhat to tightening of credit standards" and the sum of the percentage of banks responding "contributed somewhat to easing of credit standards" and "contributed considerably to easing of credit standards". 1 Expectations for Q3 2022. 2 Average of the following factors: costs related to a bank's capital position, access to money or bond market financing, and liquidity position. Since Q1 2022, the factor "Cost of funds and balance sheet constraints" has been subdivided into the aforementioned separate factors for loans to households. 3 Surveyed since Q1 2015.

The Bank Lending Survey as a lead of lending

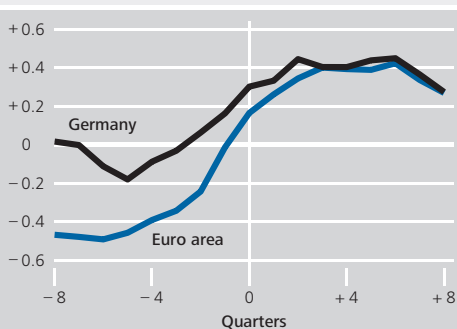
In the Bank Lending Survey (BLS), banks are asked about any changes in the credit standards they use for lending as well as their assessment of changes in loan demand. Both of these questions relate to the BLS reference period of the three months preceding the survey and can therefore be used for explaining lending during this time frame. In addition, the reported changes can also act as a lead of future loan developments. For example, in response to an easing of credit standards, it is likely that more loans will also be granted in the subsequent months and quarters, all other things being equal. Early information on future loan developments is, in turn, of great interest for monetary policy, for instance in the context of economic forecasting. Thus, on the basis of the time series available from 2003 onwards, this box conducts a statistical analysis for Germany and the euro area to determine whether the data on changes in credit standards and loan demand collected by the BLS are a systematic lead of changes in the aggregate loan volume.

Quarterly BLS data and the MFI balance sheet statistics for the period from the first quarter of 2003 to the first quarter of 2022 are used for the analysis. In order to take account of the influence of both loan supply and loan demand, the BLS data are used to construct a combined “BLS lending indicator” that describes net changes in the credit environment. This is represented by the sum of the net share of banks reporting an easing of their credit standards¹ and the net share of banks reporting a rise in loan demand. A positive value of the indicator signals an improvement in the credit environment, whilst a negative value signals a deterioration. Based on this calculation method, the lending indicator’s informative content with regard to actual loan growth is examined here. The quarterly growth rate² of the loan volume according to the balance sheet statistics – for the market segments of loans to non-financial corporations and loans for house purchase, respectively – is used as the measure of loan growth.

A first measure of a potential leading indicator property is the cross-correlation, i.e. a simple correlation coefficient between the BLS lending indicator for a given quarter and the loan growth of a previous quarter (negative time interval in quarters) or a subsequent quarter (positive time interval in quarters). For the segment of loans to enterprises, the resulting series of cross-

Cross-correlation* between BLS lending indicator and growth in loans to non-financial corporations

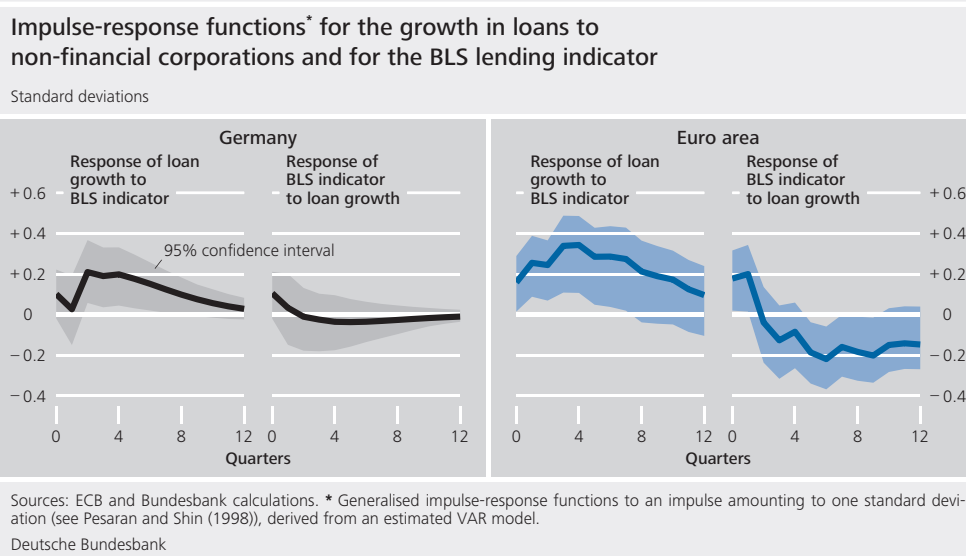
Correlation coefficient



Sources: ECB and Bundesbank calculations. * Correlation between current BLS data and lag or lead of loan growth.
 Deutsche Bundesbank

1 The variable “change in credit standards” typically measures the net share of banks reporting a tightening of their lending policies. It is therefore factored into this calculation with its sign reversed.

2 For the purpose of this analysis, the difference between the logarithmic index of transaction-based changes (index of notional stocks) and its value from the previous quarter is used, as this approximates the rate of loan growth.



correlations, with time intervals varying from -8 to +8 quarters, exhibits an S-shaped curve for both Germany and the euro area (see the chart on p. 28): an improvement in the credit environment during the reference quarter subsequently results in a higher rate of growth (positive correlation for positive time intervals in quarters). In line with the cyclical pattern of economic developments, and thus also of lending, an above-average rate of loan growth is followed by a deterioration in the credit environment after a certain period of time (negative correlation for negative time intervals in quarters).³

This means that there is evidence that the BLS lending indicator is both a lead and a lag of loan growth. The BLS data thus reflect, at least in part, cyclical developments in lending, which can also be gleaned from the data on loan growth themselves. However, as the information from the BLS is already available a few weeks before publication of the latest data on loan volumes for the respective quarter, the BLS lending indicator may be used as a lead of current loan growth in any case.

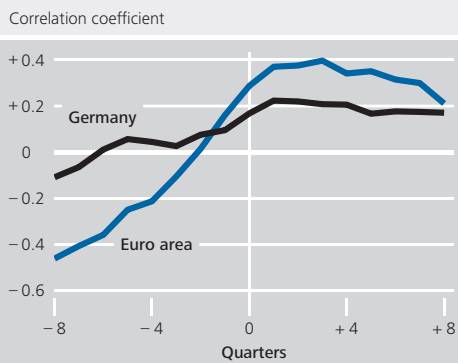
In order to determine whether the BLS lending indicator has any informative content of

its own beyond the information that can be obtained from loan growth itself, a further analytical step is needed. This step ascertains the leading indicator property of the BLS lending indicator based on its ability to predict future loan growth. The concept of “Granger causality” is used for this purpose.⁴ One variable “Granger-causes” another if it has statistically significant predictive ability for the subsequent values of this target variable even after controlling for the target variable’s lagged influence on itself. In this case analysed here, the BLS lending indicator would have Granger causality for loan growth if its present value were correlated with future values of loan growth even once the correlation of loan growth with itself over time had been factored out. The Granger causality concept is used, in particular, in what is known as the vector autoregressive (VAR) model framework. This is a system of equations in which each observed variable is determined simultaneously by lags of all these variables and one random error for each. The parameters of this model can be estimated using statistical

³ This cycle continues accordingly, with deteriorations in the credit environment subsequently being followed by lower growth rates again, etc.

⁴ See Granger (1969).

Cross-correlation* between BLS lending indicator and growth in loans for house purchase



Sources: ECB and Bundesbank calculations. * Correlation between current BLS data and lag or lead of loan growth.
 Deutsche Bundesbank

methods (least squares method). Provided that the number of lags has been determined correctly, the model describes all correlation relationships between all of the variables involved at any given point in time. From the estimated VAR model, it is possible to calculate what are known as impulse-response functions. These depict the isolated relationship between a change in one of the variables and the subsequent values of all variables. In addition to the fact that it is thus possible to adjust the cross-correlation between the variables, the estimated model also allows conclusions to be made regarding the statistical significance of any potential leading indicator property.

For both Germany and the euro area, it is confirmed that the BLS lending indicator is a lead. For Germany, the estimated impulse-response function shows that loan growth exhibits a statistically significant response to a rise in the lending indicator, in that it is higher over a period of around two to seven quarters compared with a scenario in which the lending indicator does not change (see the chart on p. 29). By contrast, the lending indicator does not respond significantly to an increase in loan growth. For the euro area, the lending indicator is a

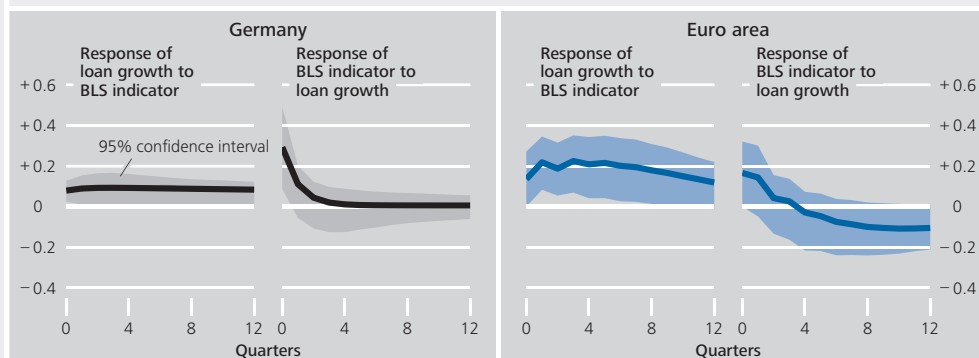
statistically significant lead of loan growth over a period of zero to seven quarters (see the chart on p. 29). After a short positive effect, the lending indicator shows a statistically significant negative response to a rise in loan growth after five to seven quarters. This means that the cyclical pattern in the cross-correlation between the two variables is demonstrated for the euro area in this analysis, too. However, the response of the lending indicator is somewhat weaker than that of loan growth. Furthermore, the business cycle is not the sole determinant of the response of loan growth to the lending indicator. This is also supported by extended model specifications (not shown here), which exclude the influence of cyclical factors and continue to demonstrate that the BLS lending indicator is a lead.

In the segment of loans for house purchase, the cross-correlation coefficients for Germany show a weak development overall, even when they are positive at positive time intervals in quarters for loan growth relative to the BLS lending indicator (see the adjacent chart). For the euro area, the S-shaped curve is more pronounced and is similar to that of the correlation coefficients for loans to enterprises.

On the basis of a VAR model for the growth of housing loans and the associated BLS lending indicator, it is revealed that the lead of BLS information for Germany is statistically significant (at the 5% level) only for a very short period of up to one quarter (see the chart on p. 31). However, the confidence interval is very close to the zero line. The opposite response of the lending indicator is likewise very short-lived. For time intervals greater than or equal to one quarter, it is virtually zero. For the euro area, the lead of the lending indicator is more pronounced and, up to a period of ten quarters, is statistically significant above zero

Impulse-response functions* for the growth in loans for house purchase and for the BLS lending indicator

Standard deviations



Sources: ECB and Bundesbank calculations. * Generalised impulse-response functions to an impulse amounting to one standard deviation (see Pesaran and Shin (1998)), derived from an estimated VAR model.

Deutsche Bundesbank

(see the above chart). By contrast, the opposite response of the lending indicator to a rise in loan growth is only significant at the time when the change occurs, but does not persist beyond that.

The results show that the lending indicators constructed from the BLS data on credit standards and loan demand are leads of loan growth in the respective market segments. More in-depth analyses, which are not presented here for reasons of space, suggest that the leading indicator properties differ across market segments: in the case of loans to enterprises, the lead is driven mainly by the BLS credit standards; in the case of loans for house purchase, the influence of the BLS loan demand predominates. However, owing to the purely statistical nature of the analyses carried out here, these results do not yet allow any conclusions to be drawn regarding the significance of loan supply and loan demand for aggregate lending in each credit segment. In order to make such an assessment, further analyses within the framework of a structural model are required.

When economic activity weakened as of 2019, Germany and the euro area as a whole saw the first instances of credit standards being tightened, above all for loans to enterprises. In addition to the general economic situation, sector and firm-specific factors played a part in the surveyed institutions assessing that credit risk had risen and increasing the requirements for borrowers. Responses to the BLS indicate that this period also saw an increase in the share¹⁶ of rejected informal loan requests and formal loan applications from both enterprises and households.

NIRP period mainly saw competition-induced margin cuts in low-risk lending business

The accommodative effect that monetary policy had on banks' lending policies was also reflected in credit terms and conditions, with margins being narrowed in all the loan segments surveyed under the BLS in the NIRP period up to the onset of the pandemic (see the chart on p. 34). For the purposes of the BLS, the loan margin is understood to mean the spread that a bank includes in the lending rate over a relevant market reference rate.¹⁷ The margin can either be adjusted actively by the banks changing the lending rate, or it can change passively, i.e. without any adjustments on the part of the banks, as a result of moves in the market reference rate. Banks saw reason to actively narrow their margins at the start of the NIRP period given the tense competitive situation in both the German and the euro area-wide banking sector. Credit institutions in the euro area sample reported furthermore that both the TLTROs and the APP had exerted an easing effect on their credit terms and conditions, especially at the beginning of the NIRP period. They noted that the negative interest rate on the deposit facility had also had an easing effect, resulting in lending rates being lowered and margins narrowed. Banks reduced their margins more for average loans than for riskier loans. By narrowing their margins predominantly in lower-risk business, it seems that banks were looking to expand their lending without, if possible, increasing the average probability of default in their credit portfolio.

This information from the BLS provided indications that the monetary policy measures were having the desired effect. The mounting pressure on banks' interest rate margins gave them an incentive to increase lending as a way of offsetting this pressure.¹⁸ In corporate lending business, the NIRP period saw not only margins but also the other terms and conditions become more customer-friendly. Credit institutions made concessions to their customers mainly in terms of the agreed covenants, but also with regard to non-interest rate charges, loan amounts and maturities, and the required collateral. The year 2019 then saw margins widening for the first time, even though the lending rates for loans to enterprises and to households for house purchase were still on the decline. Banks attributed this to changes in the cost of funds and/or balance sheet constraints. One reason for this (predominantly passive) widening of margins could have been the non-standard monetary policy measures, which lowered banks' funding costs (see the section below on the financing situation). At the same time, the market reference rates (money market rate) fell as well, faster than lending rates. In this way, the margin may have widened temporarily.

This passive widening of margins is one example of how the monetary policy interest rate cuts and non-standard measures had an impact on banks' profitability. In this context there were both positive and negative effects on earnings (see the charts on pp. 38 ff.). The differentiated responses regarding the effects on earnings are a prime indication that banks' response behaviour in the BLS is not essentially interest-driven. According to the BLS data, banks participated in the TLTROs primarily because of the attractive conditions. Both the participating German institutions and the banks

Positive and negative earnings effects of non-standard monetary policy measures

¹⁶ As a percentage of volumes.

¹⁷ The relevant market reference rate depends on the characteristics of the loan in question. Depending on the loan's maturity, the market reference rate could be EURIBOR, LIBOR or €STR or, for fixed rate loans, the interest rate swap of a corresponding maturity.

¹⁸ See Deutsche Bundesbank (2020b).

in the euro area as a whole reported a positive impact on their profitability, as the preferential conditions of the TLTROs relieved the burden on their interest expenditure. However, unlike the euro area banks, the German sample showed greater interest only as of the second series of TLTROs, which had more attractive conditions than the first. At that time, the already prolonged period of negative interest rates exerted increasing pressure on banks' net interest margin. The APP also contributed to this pressure. Since the ad hoc question on this subject was introduced, the German BLS banks have reported on a broad basis that the pressure on their net interest margin has had a negative impact on their profitability. In 2015 the surveyed banks in the euro area as a whole still reported, on balance, that the APP had had a neutral impact on their profitability overall. This was because the negative effect on their net interest margins was offset by capital gains resulting from price gains on bonds. However, according to BLS data, the negative impact of the APP on banks' profitability subsequently outweighed the positive effects in an increasing number of euro area countries. According to the surveyed banks¹⁹ in Germany and in the euro area as a whole, the negative deposit facility rate also contributed significantly to a decline in their net interest income. Until the start of the pandemic in the second quarter of 2020, just under 90% of BLS banks in Germany and 70% of banks in the euro area sample reported slight or significant negative effects on balance. By contrast, the two-tier system for remunerating excess liquidity holdings had a positive impact on earnings. This had been adopted by the ECB Governing Council in September 2019 to support the bank-based transmission of monetary policy.²⁰ Under the two-tier system, a portion of banks' excess liquidity was exempted from negative interest rates as of October 2019.²¹

On the whole, BLS did not point to restricted lending during the negative interest rate period

All in all, the BLS data on loan supply and demand developments provide no indications that lending was constrained in the euro area or in Germany during the NIRP period prior to the pandemic. While banks did report a steady

increase in demand for loans, they also cited fiercer competition, which contributed to the easing of lending policies.

Banks' financing situation

Banks in both Germany and the euro area as a whole reported an improvement in their financing terms and conditions, especially in the first two years of the NIRP period (see the chart on p. 40).²² Access to short-term customer deposits improved in particular, while access to longer-term deposits deteriorated.²³ This is likely to be connected to the fact that the narrow interest rate spread between the two deposit categories increasingly reduced the incentive for customers to invest their savings over longer periods. According to BLS data, market access for medium to long-term debt securities became easier. Data on current bond yields confirm this assessment. The TLTROs and the APP also contributed to improving the market financing conditions and strengthening the liquidity position at BLS institutions in the German and euro area samples (see the chart on p. 38). This is because the participating banks were able to finance themselves more cheaply via the TLTROs than in the market. Banks were also able to secure liquidity by selling bonds to the central bank under the APP. The APP also had a

Improved financing terms and conditions at banks, especially at the beginning of the NIRP period

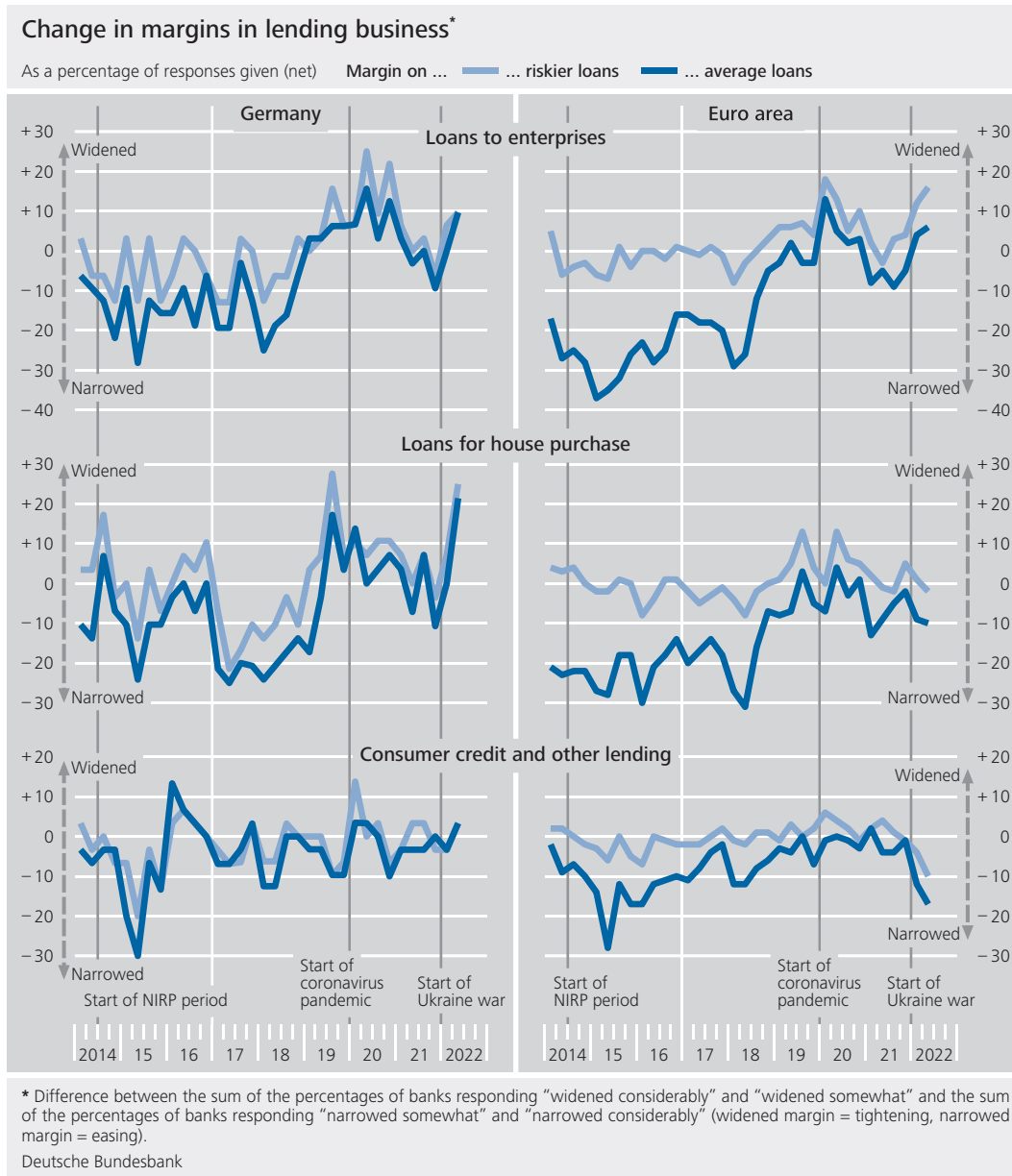
¹⁹ Banks are asked to consider in all sub-questions both direct and indirect effects that might occur, even if the bank in question does not possess surplus liquidity.

²⁰ See European Central Bank (2019b).

²¹ Since the fourth quarter of 2019/first quarter of 2020, banks are to take into account the net impact of the effects of the negative deposit rate, including the two-tier system, while also assessing the effects of the two-tier system in isolation.

²² Questions are asked about the following credit categories: retail funding (short-term deposits up to one year, long-term deposits over one year including other retail funding instruments), interbank unsecured money market (very short-term money market up to one week, short-term money market over one week), wholesale debt securities (short-term as well as medium to long-term debt securities), securitisation (of loans to enterprises and loans for house purchase), and the ability to transfer credit risk off the balance sheet.

²³ The reported volumes in the balance sheet statistics confirm this. According to this, sight deposits were built up during this period, while the volume of savings and time deposits declined overall.



downward impact on the general level of interest rates, especially in the longer-term segment.²⁴

■ Pandemic

Risk of disruptions in the financial system and funding shortages among enterprises during the pandemic

The coronavirus pandemic caused a historic decline in global economic output, including in Germany and the euro area. Economic activity also dwindled as a result of measures taken by public authorities, enterprises and consumers in Germany and abroad to contain the pandemic.²⁵ This situation caused supply chains around the world to stall. Amid an inflation

rate that was still too low, monetary policymakers were now focused on the risk of financial system disruptions and temporary funding shortages for enterprises and households.²⁶ In order to support further the provision of credit to households and firms with favourable financing terms and conditions in the face of economic disruption and heightened uncertainty²⁷ thereby avoiding further downward pressure on inflation from the financing side, the ECB Governing Council adopted a raft of monetary

²⁴ See Deutsche Bundesbank (2018).

²⁵ See Deutsche Bundesbank (2020a).

²⁶ See European Central Bank (2020b).

²⁷ See European Central Bank (2020c).

policy measures.²⁸ The terms of TLTRO III were made considerably more attractive,²⁹ with participating banks being able to secure an interest rate on borrowed funds of as low as -1% over a period of two years, provided that they met certain lending requirements.³⁰ Furthermore, temporary purchases under the pandemic emergency purchase programme (PEPP) were made between March 2020 and March 2022 alongside the APP.³¹ At the same time, additional longer-term refinancing operations (LTROs) were conducted temporarily to provide immediate liquidity support to the euro area financial system. Moreover, at the beginning of the pandemic, government guarantees were introduced in many euro area countries, especially for new loans to enterprises.³²

The BLS indicated that these loans recorded a strong increase in the first half of 2020. During this period, demand growth in Germany for loans without government guarantees was significantly lower. According to BLS data, demand in the euro area for loans without government guarantees actually declined. Enterprises also used bank loans for refinancing, debt restructuring and renegotiation purposes. In some cases, existing loans were replaced with government-guaranteed loans. According to the BLS, uncertainty about the future course of the pandemic led to a scaling back of fixed investment as well as mergers, acquisitions and restructuring, which, all other things being equal, dampened loan demand.

In the second half of 2020, BLS data show that the demand for loans to enterprises declined overall in the euro area. Unlike in Germany, where the need for bank loans, mainly to bridge financing bottlenecks, continued to increase in a weakened form, the need for loans in the euro area fell primarily due to a scaling back of fixed investment. According to BLS data, during the remainder of the pandemic demand for government-guaranteed loans initially declined in Germany and, from 2021, also in the euro area. In the second year of the pandemic, the need for funds for fixed investment gradually rebounded. Banks' expectations for the respective following quarter revealed considerable uncertainty during this period, as demand in the BLS was regularly expected to be higher than it subsequently turned out to be. It appears that, at the beginning of the pan-

... recovery of demand for loans for fixed investment in second year of the pandemic

No broad-based supply-side restrictions on lending during pandemic

As a result, according to BLS data there were no broad-based supply-side restrictions on lending during the pandemic. Sectors particularly hard hit by the pandemic where banks believed credit risk to be significantly raised were largely able to obtain liquidity through government-guaranteed assistance loans. According to the BLS, the expansionary monetary policy measures during the pandemic also played a key role in providing the real economy with favourable financing opportunities.

Loan demand

Initially strong demand for bridging loans to enterprises during the pandemic, ...

According to BLS data, the high liquidity needs initially led to a sharp rise in demand for bank loans to enterprises in both Germany and the euro area as a whole at the beginning of the pandemic (see the chart on p. 24). This demand came primarily from small and medium-sized enterprises.³³ Especially in the first year of the pandemic, enterprises needed significant bridging loans, which banks reported in the BLS under the heading "inventories and working capital". According to the responses to an ad hoc question in the BLS, enterprises covered acute liquidity needs for the most part with government-guaranteed loans, which they also used to build up precautionary liquidity buffers.

²⁸ See European Central Bank (2020a).

²⁹ The improvements in the terms and conditions of TLTRO III were published in European Central Bank (2020b, 2020c, 2020d).

³⁰ See European Central Bank (2020c).

³¹ See European Central Bank (2020a). The impact of the PEPP has been taken into account in the BLS since the fourth quarter of 2019/first quarter of 2020.

³² In Germany, for example, the KfW granted "express loans" with full risk assumption by the KfW as well as assistance loans with partial risk assumption; see Kreditanstalt für Wiederaufbau (2020).

³³ According to the BLS compilation guide, the distinction between large firms and SMEs is based on annual net turnover. An enterprise is classified as large if its net annual turnover exceeds €50 million.

dem, enterprises increased liquidity buffers to such an extent that their demand for bank loans increased only relatively sluggishly in 2021.

Demand for loans to households plummeted at the start of the pandemic

Household demand for loans in both Germany and the euro area moved in the opposite direction to that of enterprises. In the second quarter of 2020, demand for loans for house purchase as well as for consumer credit and other lending declined significantly, which the surveyed BLS banks attributed to a collapse in consumer confidence. In many cases, durable consumer goods were no longer purchased because retail outlets were largely closed on account of the lockdown. Demand for loans for house purchase rebounded as of the third quarter of 2020. Despite the pandemic, borrowers' perceptions of the housing market outlook remained favourable and thus, just like the low general level of interest rates, buoyed loan demand. Demand for loans for house purchases was dampened by the use of savings in the acquisition of real estate. In the case of consumer credit and other lending, the second lockdown at the beginning of 2021 had a similar impact to the first, with demand for loans collapsing again after having stabilised somewhat for a while. Demand did not recover on a lasting basis until the second quarter of 2021 amid subsiding infection rates and the easing of containment measures. According to BLS data, the propensity to purchase and consumer confidence rebounded.

Lending policies

Tightening of lending policies during the pandemic

The first pandemic year of 2020 was characterised in the euro area and in Germany by restrictive adjustments to lending policies in all lines of business covered by the BLS (see the chart on p. 27). However, the cumulated changes in credit standards show that these tightening measures fell well short of those during the financial crisis of 2008-09 (see the chart on p. 26). The financial crisis had emerged from the financial system itself and had severely im-

paired banks' supply of credit. In the BLS, this was evidenced at the time by the high importance attributed to bank-side factors in explaining the changes in credit standards. By contrast, the BLS has shown that the impact of the pandemic took place primarily via increased borrower-side risks. For loans to enterprises, the surveyed institutions tightened their credit standards in particular for loans to sectors that were especially affected by the pandemic containment measures. In 2020, these included, in particular, the wholesale and retail trade, the services sector, manufacturing and commercial real estate.³⁴ The restrictive impact of the general economic situation and the economic outlook, which in 2020 had initially also been a factor in the tightening, quickly receded as a result of government support measures during the pandemic.

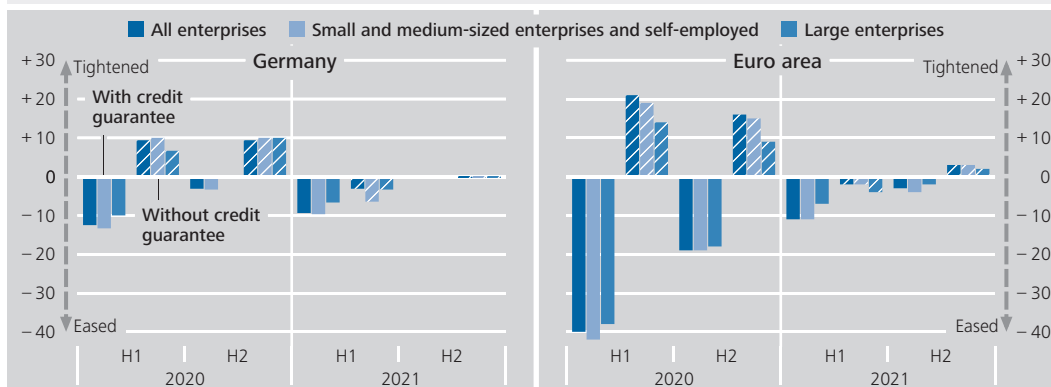
In the case of loans issued with government guarantees during the pandemic, the government assumed a large part of the credit risk associated with lending for the banks. It thus shielded banks from credit risk, which had risen sharply, especially in sectors particularly affected by the pandemic. Accordingly, the BLS showed that the surveyed banks eased their credit standards for loans with COVID-19-related government guarantees in the first half of 2020 compared with the second half of 2019, before such pandemic-related assistance loans had been introduced (see the chart on p. 37). On balance, euro area banks also eased the credit terms and conditions for government-guaranteed loans to enterprises, especially in the first year of the pandemic. By contrast, the banks in the German sample barely adjusted the credit terms and conditions for these loans. The easing of the credit standards for guaranteed loans continued in a weakened form until mid-2021. By contrast, the BLS banks reported that the standards and terms and conditions for loans without government guarantees were

Ad hoc question on government-guaranteed loans to enterprises during the pandemic

³⁴ See the data on the ad hoc question asked since the first half of 2020 on changes in credit standards, credit terms and conditions and credit demand in the main economic sectors in the past and next six months.

Changes to credit standards for loans with and without COVID-19-related government guarantees*

As a percentage of responses given (net)



* Difference between the sum of the percentages of banks responding "tightened considerably" and "tightened somewhat" and the sum of the percentages of banks responding "eased considerably" and "eased somewhat".

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tightened in both Germany and the euro area. This was broadly in line with the data provided by banks on overall lending policy, which cover all new lending.

As intended by monetary policymakers, the negative interest rates and non-standard monetary policy measures had an expansionary effect on lending policies during the pandemic and helped to provide the real economy with favourable sources of funding (see the chart on p. 38). On balance, the TLTROs and the purchase programmes including the PEPP continued to have an easing effect on credit standards at banks in the euro area sample, but not in the German one. However, as a result of participation in the TLTRO III, German banks did ease their credit terms and conditions and expand their lending, especially to enterprises at which the operations were principally aimed. The APP and the PEPP also continued to have an easing impact on credit terms and conditions and loan volumes in the euro area sample, while once again, this effect failed to materialise in the German sample. The negative deposit facility rate, including the two-tier system, continued to contribute to the decline in lending rates, though to a somewhat lesser extent as of 2021, according to the banks. This suggests that the effect on lending rates of the last cut in the deposit facility rate of 18 September 2019 grad-

ually dissipated. Lending rates nevertheless subsequently reached new historical lows.³⁵

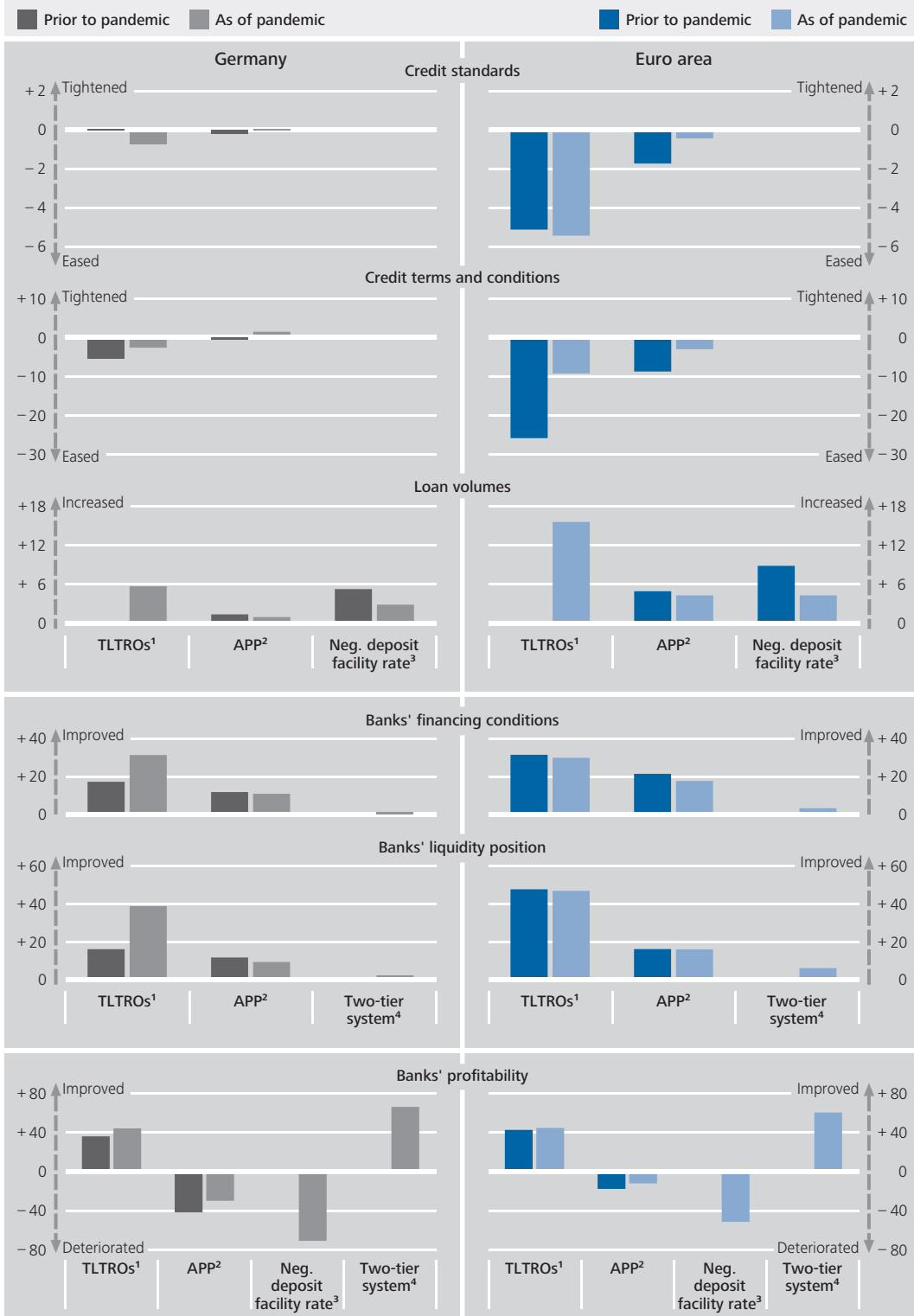
Banks in Germany, as in the euro area, also tightened their credit standards for loans to households at the beginning of the coronavirus pandemic. The share of rejected loan applications increased markedly. The tightening was justified by the banks mainly on the grounds of the deteriorating outlook for the economy, but also due to the uncertain housing market situation and the reduced creditworthiness of many potential borrowers. Credit terms and conditions were also made more restrictive. For loans for house purchase, banks restricted the loan-to-value ratio more sharply than before, and for consumer credit and other lending they mainly restricted the loan amounts. From the end of 2020, no further significant tightening occurred in either of these credit segments. In the course of 2021, banks in Germany partially reversed the tightening of the standards and terms and conditions for consumer credit and other lending. In their assessment, the general economic situation improved again as a result

Lending policy for households also tightened

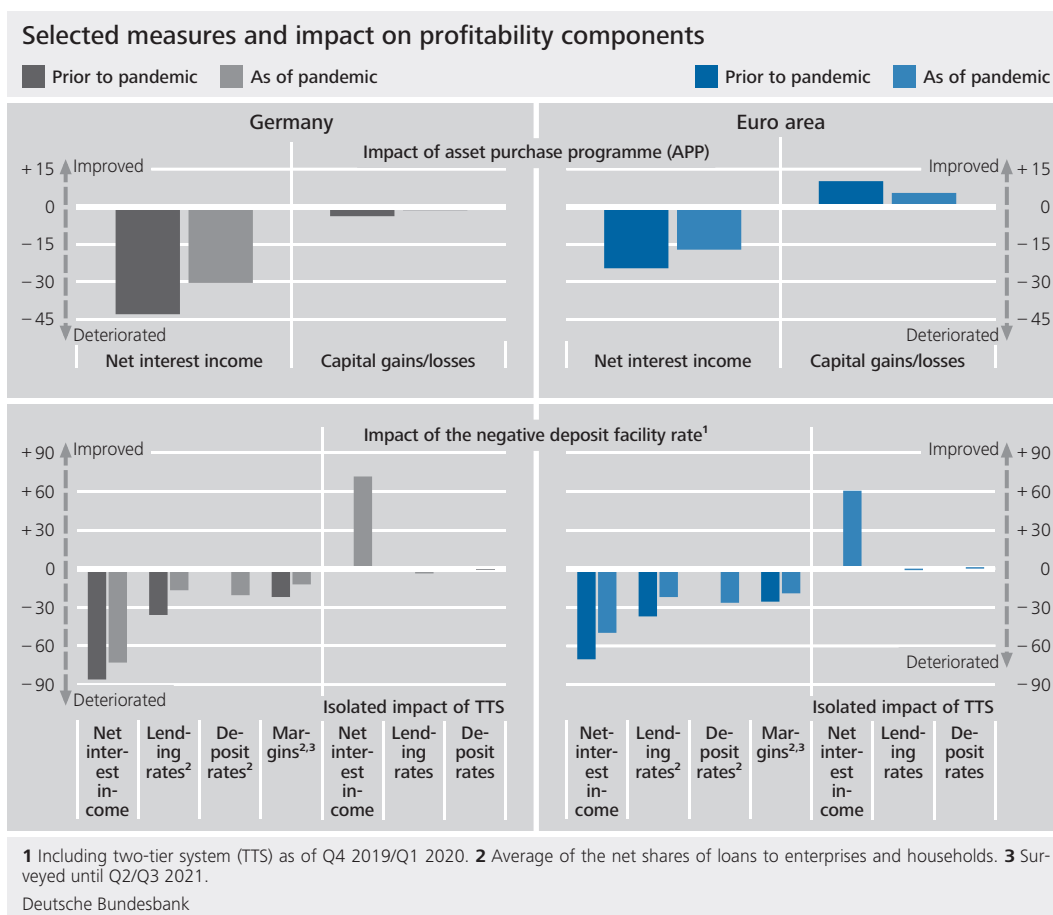
Increased expansionary impact of monetary policy measures

³⁵ According to the MFI interest rate statistics, the aggregate interest rate on loans to non-financial corporations reached a historic low in March 2021 in both the euro area and Germany. The interest rate on loans for house purchase reached their lows in the euro area in August 2021 and in Germany in December 2020.

Impact of monetary policy measures on banks' lending policies, financing conditions, liquidity and profitability



1 Prior to pandemic: average of the shares of banks that reported an easing/increase/improvement in response to the questions on TLTRO I and II that were asked from Q3 2014 to Q2 2017. As of pandemic: average of the net shares of TLTRO III from Q4 2019/Q1 2020 to Q4 2021/Q1 2022, including expectations for Q2/Q3 2022. **2** Prior to pandemic: average of the net shares from Q4 2014/Q1 2015 to Q2/Q3 2019. As of pandemic: average of the net shares from Q4 2019/Q1 2020 to Q4 2021/Q1 2022, including expectations for Q2/Q3 2022. **3** Prior to pandemic: average of the net shares from Q4 2015/Q1 2016 to Q2/Q3 2019. As of pandemic: average of the net shares from Q4 2019/Q1 2020 to Q4 2021/Q1 2022, including expectations for Q2/Q3 2022. **4** Two-tier system for remunerating excess reserve holdings. Taken into account in the BLS as of Q4 2019/Q1 2020. Average of the net shares from Q4 2019/Q1 2020 to Q4 2021/Q1 2022, including expectations for Q2/Q3 2022.



of the pandemic-related restrictions gradually ending. In the euro area, by contrast, banks largely retained their stricter lending policy.

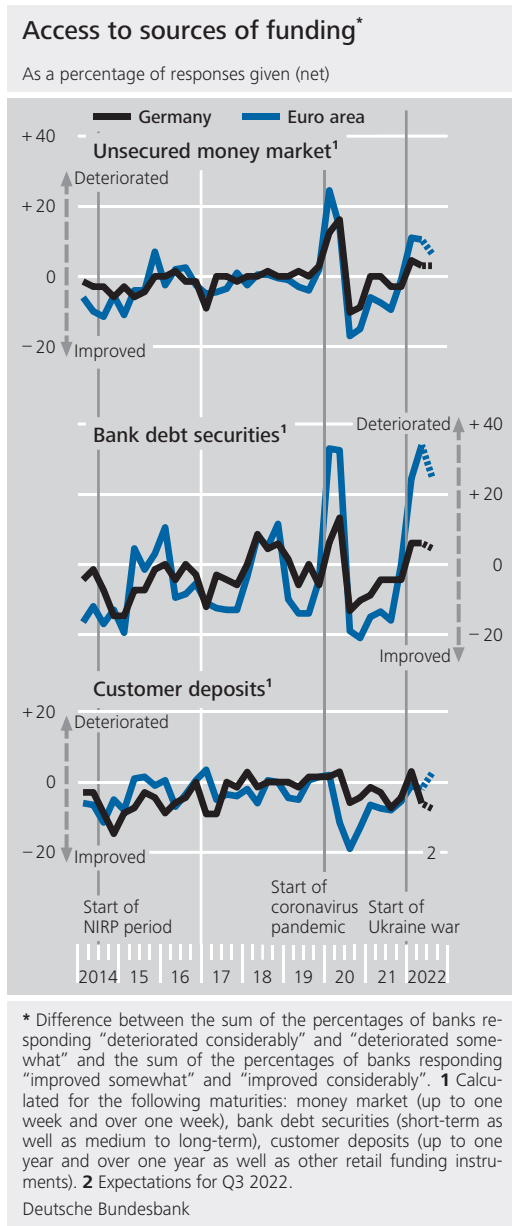
during the pandemic, the negative impact of the programmes on profitability declined somewhat during this period. On balance, this was not the case for German institutions, meaning that their profitability, when viewed in isolation, was still significantly affected by the APP according to the BLS. There is empirical evidence that the APP led banks in euro area countries with higher risk premia to tend to invest more in riskier securities.³⁷ Yields on these securities are likely to have fallen comparatively more sharply in the wake of the APP, thus contributing to a shift in banks' portfolios towards riskier assets. The dampening impact of the negative deposit facility rate on banks' net interest income decreased somewhat as a result of the introduction of the two-tier system, particularly in the euro area sample, but also in the case of banks in Germany. However, this

Continued positive and negative earnings effects of non-standard monetary policy measures

The economic turmoil triggered by the pandemic and heightened uncertainty prompted the ECB Governing Council to make TLTRO III considerably more attractive. According to BLS data, TLTRO III led to a significant improvement in banks' profitability. The participation rate in TLTRO III among BLS banks rose sharply in June 2020 to over 70%. According to BLS banks in Germany and the euro area, they participated mainly because of the favourable conditions. As part of these operations, banks were able to obtain liquidity for three years at very favourable conditions. At the same time, the banks reported that the APP and the PEPP, when viewed in isolation, continued to exert pressure on the net interest margin and net interest income³⁶ (see the charts on pp. 38 f.). However, as the APP and the PEPP again enabled the surveyed euro area banks to make capital gains

³⁶ Since the fourth quarter of 2019/first quarter of 2020, the impact of the APP on net interest income has been surveyed instead of the net interest margin.

³⁷ See Albertazzi et al. (2021) and Altavilla et al. (2015).



impact remained relevant for around half of the euro area banks surveyed. This, too, had a negative effect on institutions’ profitability.³⁸

Banks’ financing situation

With the pandemic and the high degree of uncertainty about its economic impact, banks in Germany and the euro area initially made gloomier assessments of their financing situation (see the chart above). According to BLS data, the issuance of debt securities became more difficult, especially in the medium to longer-term segment. Yields rose significantly.

Banks’ financing situation deteriorated at the start of the pandemic, ...

According to BLS data, access to securitisation and the ability to transfer credit risk off the balance sheet also deteriorated. However, banks reported that access to customer deposits remained good during the first phase of the pandemic. From the second half of 2020 onwards, the situation generally eased again and, according to BLS data, there were improvements in relation to all sources of funding surveyed.

According to BLS data, the non-standard monetary policy measures contributed to the easing of banks’ financing situation (see the chart on p. 38). As of the fourth operation in June 2020, financing via TLTRO III became significantly cheaper than market financing. As more BLS banks both in Germany and the euro area then participated in the operations, more institutions also reported that their financial situation, in particular their liquidity position, improved as a result of their participation. The APP’s positive impact on banks’ financing conditions and liquidity position, which had waned over time until the second quarter of 2020, also intensified temporarily. In addition, the two-tier system for negative interest in the deposit facility likewise contributed somewhat to the improvement in the liquidity position.

... with monetary policy measures subsequently contributing to a gradual easing

War on Ukraine

Since the start of the Ukraine war in February 2022, the prices of many commodities, and especially energy, have risen steeply, driving consumer prices in the euro area up sharply. The ongoing disruptions to international supply chains were another contributory factor.³⁹ As a result, the rate of inflation has risen noticeably, and inflationary pressures have intensified across many sectors. The Governing Council of the ECB therefore decided in June 2022 that net purchases under the APP would be con-

Inflation significantly higher since the start of the Ukraine war

³⁸ The impact of the negative deposit rate on profitability has been surveyed since the fourth quarter of 2019/first quarter of 2020.

³⁹ See Deutsche Bundesbank (2022).

cluded as of 1 July 2022.⁴⁰ Net purchases under the PEPP had been discontinued back on 31 March 2022, as planned.⁴¹ This paved the way for the first policy rate hike since 2011, in line with the previously communicated timeline for monetary policy normalisation.⁴² On 21 July 2022, the Governing Council of the ECB decided to raise key interest rates by 50 basis points in response to the updated assessment of inflation risks. It also approved the Transmission Protection Instrument (TPI), which is intended to support the effective transmission of monetary policy.⁴³ As the inflation rate remained significantly too high and is expected to remain above the target for an extended period of time, the Governing Council decided to raise the key interest rates by a further 75 basis points on 8 September 2022. Over the next several meetings, the Governing Council said it expected to raise interest rates further. It also decided to suspend the two-tier system for the remuneration of excess reserves. The Governing Council intends to continue reinvesting the principal payments from maturing securities purchased under the APP and the PEPP. It will ensure that the phasing out of TLTROs III does not hamper the smooth transmission of monetary policy.⁴⁴

Loan demand

In view of high uncertainty and unstable supply chains, demand for loans to enterprises continues to rise

According to BLS data, demand for loans to enterprises in Germany picked up more strongly again in the first half of 2022 (see the chart on p. 24). In the euro area, it had already risen fairly strongly in the fourth quarter of 2021, meaning that the increase in demand did not accelerate any further there. Higher demand was driven mainly by the increased need for funding for inventories and working capital. Many enterprises have probably expanded their inventories in the face of unstable supply chains and the heightened uncertainty as a result of the war on Ukraine. Demand for funding for fixed investment, too, continued to increase in the first quarter, which was reflected in higher demand for long-term loans. However, increasing un-

certainty meant that the fixed investment factor had a dampening effect on demand for loans to enterprises again in the second quarter of 2022, much like at the beginning of the pandemic. Looking to the third quarter, banks in Germany and the euro area as a whole are not expecting demand to rise any further.

Demand for loans for house purchase increased significantly more strongly in Germany in the first quarter of 2022 than banks had expected. Because the Governing Council of the ECB announced in December 2021 that net purchases under the PEPP would be discontinued in March 2022,⁴⁵ rising interest rates were expected. This could have triggered anticipatory effects among borrowers. In the euro area, too, demand for loans for house purchase initially continued to expand. In the second quarter of 2022, it then dropped again for the first time since the start of the pandemic. Banks attributed this mainly to lower consumer confidence. In line with the monetary policy objective of price stability, the recent significant increase in the general interest rate level, especially in the longer-term segment, no longer drove up demand. However, this factor had no significant impact on demand for consumer credit and other lending, which continued to expand throughout the first half of 2022. For the third quarter, banks in Germany and the euro area expect a slump in demand for loans to households for house purchase and a much smaller increase in demand for consumer credit and other lending.

Households' demand for loans rose significantly in the first half of 2022 due to still low interest rates

Lending policies

Despite the high degree of uncertainty surrounding the economic consequences of the war on Ukraine, banks in the German BLS sam-

⁴⁰ See European Central Bank (2022b).

⁴¹ See European Central Bank (2021).

⁴² See, for example, European Central Bank (2022a).

⁴³ See European Central Bank (2022c).

⁴⁴ See European Central Bank (2022d).

⁴⁵ See European Central Bank (2021).

Further tightening of credit standards since the start of the war on Ukraine

ple tightened their credit standards for loans to enterprises only marginally in the first half of 2022 (see the chart on p. 27). As banks had not notably eased credit standards following the tightening at the start of the pandemic, standards were probably already comparatively tight when the war on Ukraine broke out. Banks also made credit terms and conditions somewhat more restrictive. By contrast, lending policies were tightened significantly in the euro area in the second quarter of 2022. In both Germany and the euro area, banks justified the recent tightening with their view that credit risk has risen.

Effects of non-standard monetary policy measures are likely to weaken further

For the third quarter, banks in both samples are planning to tighten their credit standards further. In the past, banks' plans to adjust their credit standards in the following quarter have proved to be a good indicator of what has actually happened. This is true of Germany and the euro area and applies to all credit segments. With the inflation rate high, monetary policy's intention is certainly for lending policies to be tightened. According to the surveyed BLS banks in the euro area and in Germany, the expansionary effects of non-standard monetary policy measures on their lending policy and loan volume are likely to become ever smaller. In fact, euro area banks for the first time actually expect the purchase programmes to have restrictive effects on credit standards and terms and conditions for loans to enterprises and on the terms and conditions for consumer credit and other lending.

Credit standards for loans for house purchase considerably tighter

In the first two quarters of 2022, the banks surveyed in Germany and the euro area as a whole also set stricter standards for loans for house purchase. In the second quarter of 2022, credit standards in Germany were tightened more than ever before since the introduction of the BLS in 2003. In this credit segment, too, the tightening seen during the pandemic had been reversed only marginally in the meantime. The share of rejected loan applications rose considerably in both Germany and the euro area as a whole. According to the banks, all three factors

which contribute to their risk assessment according to the BLS questionnaire had a restrictive impact: the general economic situation and outlook, housing market prospects and borrowers' creditworthiness. For the third quarter, banks in both Germany and the euro area are planning to further tighten their credit standards. Credit standards for consumer credit and other lending were also tightened in the second quarter, something that is likely to continue in the coming quarter.

The discontinuation of net purchases under the PEPP and the APP and the gradual phasing-out of the TLTROs are also reducing the impact of these measures on banks' profitability. This is likewise reflected in banks' responses in the BLS. Banks participating in the TLTROs continue to benefit from the favourable interest rate on the funds raised. However, the third series ended with the allocation of the tenth operation in December 2021, meaning that repayments are gradually due and the amount of outstanding funds is coming down. On the other hand, the surveyed banks also said in the April round⁴⁶ that they expected the negative impact of the purchase programmes and the negative deposit rate on their profitability to wane in the second and third quarters of 2022. One factor here is likely to have been that a first interest rate hike was expected in July.

Impact of non-standard monetary policy measures on profitability likely to decline

Banks' financing situation

Since the outbreak of the war on Ukraine in the first quarter of 2022, euro area banks, in particular, describe their financing situation as having deteriorated (see the chart on p. 40). By contrast, the situation in Germany has clouded over much less thus far. According to BLS data, issuing debt securities, in particular, has become more difficult, especially in the medium

Bank funding has deteriorated since the outbreak of the war

⁴⁶ The ad hoc questions on the TLTROs, the APP and the negative deposit rate are asked every six months, most recently in the April 2022 round. See the overview on p. xx. Banks' expectations as described in the April round refer to the second and third quarters of 2022.

to longer-term segment, but so has access to the short-term money market. Since the beginning of 2022, data on bond yields and money market rates have shown a clearly upward trend. This is because the sharp rise in the rate of inflation and the incipient monetary policy normalisation have led to expectations of interest rate increases, causing the general interest rate level to rise in anticipation. According to BLS data, access to securitisation and the ability to transfer credit risk off the balance sheet also declined. However, according to the banks, access to customer deposits remained broadly unchanged. Looking to the third quarter, euro area banks expect a continued deterioration in their access to market funding.

The impact of monetary policy measures on bank funding is likely to weaken

In the April round, banks said that they expected the effects of TLTROs and the APP to weaken their market financing conditions and liquidity position during the second and third quarters of 2022. In the euro area, the surveyed banks even for the first time expected the APP to have a negative impact on their liquidity position and financing conditions in the second and third quarters of the year. This assessment by banks is likely related, first, to the discontinuation of net asset purchases under the PEPP in March 2022. Second, the surveyed banks are likely to have anticipated in the spring that the Eurosystem would gradually reduce its net purchases under the APP or discontinue them altogether. The reduction in the degree of expansiveness intended by monetary policymakers is therefore likely to be achieved with the expiry of the non-standard measures.

■ Conclusions

BLS indispensable for monetary policy decision-making

The Bank Lending Survey is the central source of information for assessing banks' lending policies and demand for loans in Germany and the euro area. Its findings were valuable for monetary policy decision-making, especially during the NIRP period and the pandemic. Its flexible design means that the BLS allows information

to be obtained quickly in a rapidly changing environment.

The BLS does not suggest that lending was restricted during the NIRP period before the pandemic. While banks reported a steady increase in demand for loans they also described fiercer competition, which, like monetary policy measures, contributed to the easing of lending policies. During the pandemic, there were likewise no broad-based supply-side restrictions on lending. Sectors particularly hard hit by the pandemic where banks believed credit risk to be significantly raised were largely able to obtain liquidity through government-guaranteed assistance loans. Furthermore, the negative interest rates and non-standard monetary policy measures had an expansionary effect on lending policies during the pandemic – as intended – and helped to provide the real economy with favourable sources of funding.

In addition, the information obtained from ad hoc questions in the BLS helps to answer questions relevant to monetary policy transmission. It was thus possible to gauge the impact of non-standard monetary policy measures using banks' responses before enough statistical data were available for a more in-depth empirical analysis. For instance, banks' responses suggest that the negative effects of the APP and the negative deposit rate on profitability did not result in a curb on lending. On the contrary, the results of the BLS indicate that these measures had an expansionary impact on loan volume in the euro area as a whole, as intended by monetary policy. During the NIRP period, the Governing Council of the ECB implemented far-reaching measures to combat inflation, which was too low during this period. Reports from the participating institutions suggest that TLTRO III operations, in particular, in which German banks also participated actively during the pandemic, are likely to have brought about an expansion in lending. At the same time, banks participated in these operations primarily because they were profitable.

According to the BLS, nothing to suggest supply-side restrictions on lending during the NIRP period and pandemic

Non-standard monetary policy measures had different effects on profitability and lending

BLS data allow for a more in-depth observation of credit supply against backdrop of currently complex economic situation

Even in the current macroeconomic situation, which is characterised by much uncertainty, the BLS helps to identify the challenges in terms of the supply of loans in a timely manner. One important question for monetary policymakers is, for instance, how banks will respond to the increase in credit risk brought about by the war against Ukraine and its extensive macroeconomic fallout. The effects of monetary policy normalisation are also of central interest. The exit from non-standard monetary policy measures and rising monetary policy interest rates

will have an impact on banks' financing conditions. With inflation rates high, a contractionary effect on lending policy is currently desirable from a monetary policy perspective. Timely information from the BLS on how the financing situation is developing is of particular significance in this situation. As the BLS data on credit standards and demand for loans are a leading indicator of future developments in lending, this information can help to identify early on where potential difficulties could arise in providing the economy with credit.

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