Extended MFI interest rate statistics: methodology and first results

The recently completed overhaul of the MFI interest rate statistics introduces a number of additional subcategories for new lending business which significantly expand the database and open up new analytical possibilities. The additional information not only allows a more comprehensive study of the monetary transmission mechanism and the convergence of financial markets but also provides new insights into aspects of risk that are relevant to the analysis of financial stability.

Having undergone extensive checking to assure their quality, the data collected since mid-2010 under the new approach are to be published for the first time in June 2011. This article explains the methodological changes in the MFI interest rate statistics and outlines the analytical benefits of the additional categories. It also presents first results for the most recent reporting period based on the new data.

When the ECB Regulation was revised, the sampling procedure and selection of the banks that are required to report for the MFI interest rate statistics were also modified. To minimise the reporting burden on the banking sector, the MFI interest rate statistics in Germany are still not based on a full census. However, to ensure that the sample remains representative over time, it needs to be reviewed on a regular basis and, where appropriate, additional banks must be required to report. This article outlines the criteria used for the overhaul and the resulting changes to the sample.

Finally, we look at how the data collected for the MFI interest rate statistics are used in economic analysis, taking the monetary transmission mechanism as an example. In this context, we also discuss the conclusions that can be drawn about the structure of lending business in Germany on the basis of the new data.

MFI interest rate statistics since 2003

MFI interest rate statistics: what is recorded and why

Since they were introduced in January 2003, the harmonised MFI interest rate statistics have provided the Eurosystem with valuable information for analysing monetary developments and the monetary transmission mechanism as well as for monitoring financial stability.[1] The national contributions to these statistics are collected by all central banks in the European System of Central Banks (ESCB) on a monthly basis.[2] The German contribution to the MFI interest rate statistics comprises the interest rates that resident monetary financial institutions apply to – and their business volumes of – euro-denominated deposits of and loans to households and non-financial corporations domiciled in the euro area. The Bundesbank collects data both on new business in the reporting month and on outstanding amounts, ie the value of all contracts existing at the end of the month. The national contributions to the MFI interest rate statistics form the basis for calculating the euro-area's interest rate aggregates, which in turn provide the Governing Council of the ECB with key information for its decisions regarding the monetary policy stance.

Regular overhaul of monetary statistics necessary

When the interest rate statistics regulation and the regulation concerning statistics on the consolidated balance sheet of the MFI sector were adopted in 2001, it was decided that the approach to monetary statistics within the ESCB would remain unchanged for a period of at least five years in order to limit the reporting institutions' changeover costs and safeguard the stability and continuity of the data. To ensure that the informative value of the monetary statistics remains high in years to come, additional data requirements, such as those made necessary by new developments on the credit market, have been devised over the past few years. In addition, the reworking was intended as a means of aligning the methods for collecting statistics even more closely with each other. A comprehensive Europe-wide merits and costs analysis was conducted in order to evaluate the required adjustments. Those requirements which were found to be urgently necessary were brought together in a joint package consisting of three statistics regulations, which was subsequently adopted by the Governing Council of the ECB. This package comprises the amending regulation on MFI interest rate statistics,[3] the revised regulation on MFI balance sheet statistics[4] and the regulation concerning statistics on financial vehicle corporations.[5]

Following a phase of implementation spanning more than one year, the new interest rate statistics data for June 2010 were the

1 See also Deutsche Bundesbank, The new MFI interest rate statistics – methodology for collecting the German data, Monthly Report, January 2004, pp 45-59.
2 The relevant legal basis provided by Regulation ECB/2001/18 concerning statistics on interest rates applied by monetary financial institutions to deposits and loans vis-à-vis households and non-financial corporations was published in the Official Journal of the European Communities on 12 January 2002 (OJ L10, 24).
3 Regulation ECB/2009/7 amending Regulation ECB/2001/18 was published in the Official Journal of the European Communities (OJ L94, 75) on 8 April 2009.
4 Regulation ECB 2008/32 concerning the balance sheet of the monetary financial institutions sector (recast) was published in the Official Journal of the European Communities (OJ L15, 14) on 20 January 2009.
5 Regulation ECB/2008/30 concerning statistics on the assets and liabilities of financial vehicle corporations engaged in securitisation transactions was published in the Official Journal of the European Communities (OJ L15, 1) on 20 January 2009.

first to become available for internal review. These data subsequently underwent in-depth quality analyses before finally being released for publication by the ESCB's statistics committees.

Methodological changes from 2010

Additional reporting items in interest rate statistics from June 2010

The overhaul entailed a number of changes in the recording of new business in the MFI interest rate statistics. New types of lending were incorporated into the data, loans to non-financial corporations were broken down further by volume and period of interest rate fixation, and additional items for recording secured loans separately were introduced. We will look at each of these changes individually in the following paragraphs.

Extended credit card debt recorded separately

In recent years, credit card debt has become considerably more important in the euro area and has come under increasing analytical scrutiny in the wake of the financial crisis. The overhaul of the MFI interest rate statistics therefore established individual categories for this type of lending so that it can be analysed separately. In addition, the overhaul draws a distinction between "convenience credit card debt", for which no interest accrues during the payment period, and "extended credit card debt". For the latter, interest is usually charged once the payments of a billing cycle become due if the customer's debit amounts have not yet been settled. Only the interest rates on extended credit card debt to households and non-financial corporations are recorded in the MFI interest rate statistics, whilst the corresponding business volumes for extended and convenience credit card debt are recorded in the monthly balance sheet statistics.

Recording credit card debt separately increases homogeneity in the individual interest rate categories. Previously, credit card debt was often reported together with overdrafts, with no distinction drawn between the two types of lending, despite the fact that they can differ substantially from each other in terms of their interest rates and their significance in the individual euro-area countries. The new data make it possible to monitor the interest rates on this type of lending more closely, allowing, for example, conclusions to be drawn about the level of household debt and thus also about aspects of financial stability.[6]

Revised definition of revolving loans and overdrafts

As well as recording credit card debt separately, the overhauled MFI interest rate statistics also contain a clearer definition of overdrafts, thus allowing this item to be further harmonised within the euro area.[7] This category is now entitled "revolving loans and overdrafts".[8] The data recorded under this item provide important information for both

6 Extended credit card debt to non-financial corporations plays a fairly minor role in Germany and is therefore not shown separately.
7 Previously, only the MFI interest rate statistics recorded the instrument category "overdrafts" separately. The monthly balance sheet statistics now also show these volumes separately in order to make the two statistical systems more consistent with one another.
8 In Regulation ECB/2008/32 concerning the balance sheet of the monetary financial institutions sector, overdrafts are defined as debit balances on current accounts. By contrast, revolving loans are loans that have all the following features: (1) the borrower may use or withdraw funds up to a pre-approved credit limit without giving prior notice to the lender; (2) the amount of available credit can increase and decrease as funds are borrowed and repaid; (3) the credit may be used repeatedly; (4) there is no obligation for regular repayment of funds.

Selected lending rates

% pa, monthly

1 Interest which accrues after a billing cycle. Data available from June 2010.

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financial stability policy and monetary policy, as bank customers can still use these forms of lending even if they cannot obtain any other loans owing either to liquidity shortages or liquidity hoarding by banks. Increasing use of revolving loans and overdrafts can thus be a sign of financing constraints in the private sector and/or restrictions at banks.

Differences in level of interest rates on revolving loans and overdrafts as well as on credit card debt

The data that are now available on revolving loans and overdrafts as well as on extended credit card debt illustrate the considerable differences in the level of interest rates in these categories. Overdrafts are thus considerably more expensive for households than for non-financial corporations, for example. In the reporting period from January 2003 to April 2011, this difference amounted to an average of 469 basis points. One reason for this could be that corporations are subject to certain reporting obligations, whilst the credit risk of households is less transparent. Extended credit card debt to households, which has only been recorded separately since June 2010, is even more expensive. The average interest rate on this type of lending was around 15% per annum.

Lending to sole proprietors shown separately

Sole proprietors[9] are enterprises without independent legal status, such as doctors, architects or lawyers. They were previously included indistinguishably in the household sector of the MFI interest rate statistics, as such business entities are inseparably linked to natural persons. Loans to sole proprietors are often included in “loans for other purposes” if they cannot be clearly ascribed to any other category.[10] Nonetheless, the economic behaviour of these market participants can differ widely from that of the typical household, and having more homogeneous groupings is therefore an advantage for analytical purposes.

As information on sole proprietors is important for economic and financial analysis, the overhauled MFI interest rate statistics contain a new sub-item for new business in loans to households for other purposes. Using these data, it is now possible to examine the differing developments in credit aggregates between countries more selectively. In addition,

9 Also defined as “Sole proprietors and unincorporated partnerships” in Regulation ECB/2008/32. See Regulation ECB/2008/32, annex II, part 2.
10 Other lending to households encompasses loans which are not ascribed to consumption, house purchase, revolving loans and overdrafts or credit card debt. It includes, for example, loans for purposes such as business, debt consolidation or education.

the data on sole proprietors are a good indicator for analysing the financing of smaller enterprises.

In Germany, loans to sole proprietors make up the bulk of the volume of loans to households for other purposes, with an average share of more than 60%. The German data show that the interest rate conditions for this group are only slightly more expensive than for households as a whole (including sole proprietors). The interest rate premium thus stood at around five basis points in the short-term interest rate fixation band and at just over 14 basis points in the medium-term fixation band. The interest rates in the longer-term fixation band were almost identical on average.

Definition of smaller loans to enterprises and breakdown by initial period of interest rate fixation

The overhaul of the MFI interest rate statistics involved further changes, in particular, in the area of loans to enterprises. Loans to non-financial corporations are now broken down further by size so as to improve the options for analysing financing conditions for smaller enterprises. The loan volume is considered to be an indicator of the enterprise's size.[11] Moreover, loans to enterprises are broken down further by the initial period of interest rate fixation. This allows the transmission of key interest rate changes to be investigated in more detail and permits new insights into the differences in interest rates between countries.[12]

Analyses of interest burden and enterprise size

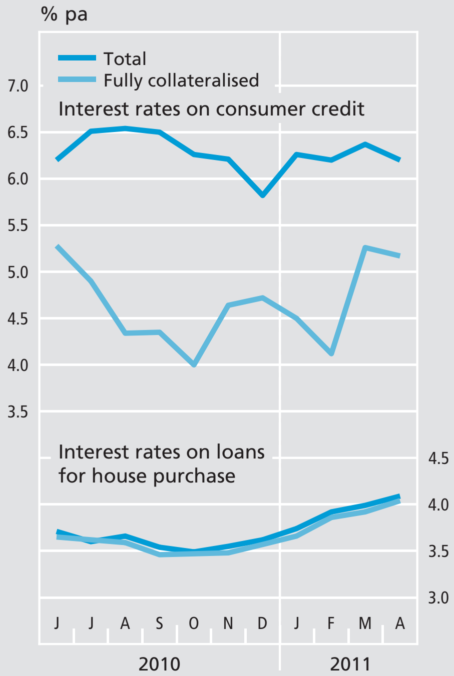
As is to be expected, the new data derived from the more detailed size breakdown show that, for loans to non-financial corporations, the interest rate is invertly linked to the volume. Since June 2010, loans up to an amount of €250,000 were thus granted for an average of around 4.5% per annum, whilst the interest rates on loans over an amount of €250,000 and up to €1 million were between 3% and 3.5% per annum. The lowest interest rates were payable on loans over an amount of €1 million, at an average of 2.7% per annum. Assuming that small-volume loans tend to be taken out by small and medium-sized enterprises, one possible explanation for these differences in interest rates is the lower transparency of smaller enterprises in comparison with larger companies, which are subject to stricter disclosure requirements. It is therefore much easier to identify risks for large enterprises than for, say, sole proprietorships.

Recording new business in fully secured loans separately ...

The presentation of fully secured loans to households and non-financial corporations in new business is another important change in the MFI interest rate statistics. In the new reporting system, those types of loans which are deemed to be secured according to the specified definition are reported separately for all types of lending apart from credit card debt, revolving loans and overdrafts, and loans for other purposes. For the purposes of the MFI interest rate statistics, a loan is deemed to be secured if the value of the underlying collateral and/or the guarantees or

11 For new business in loans there are now three size categories –"loans up to an amount of €250,000", "loans over an amount of €250,000 and up to €1 million" and "loans over an amount of €1 million".
12 All loan size categories are divided into the following rate fixation bands: "floating rate and up to 3 months", "over 3 months and up to 1 year", "over 1 and up to 3 years", "over 3 and up to 5 years", "over 5 and up to 10 years" and "over 10 years".

Lending rates in retail business



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sureties is equal to or greater than the total amount of the loan.[13] Those loans which are backed with collateral amounting to at least their full amount are thus recorded as being secured. The total item still comprises fully secured, partially secured and unsecured loans, although the latter two are not recorded separately.

... allows risk aspects to be analysed

Recording secured loans separately allows interest rates to be broken down into more homogeneous risk groups. This improves the informative value of the statistics here too and provides analysts with additional information on the possible causes of differences in interest rates. In addition, the data allow more in-depth analyses of how credit risk influences the way in which banks structure their terms and conditions, thus also allowing conclusions to be drawn about borrowers' financing costs. Furthermore, this information will be used in the future for the regular examinations of risks to financial stability.

Degree of collateralisation of loans to households..

The data show that only a small part of lending for consumption is secured to the full amount of the loan. On average, only up to 10% of such transactions were fully secured during the survey period. Interest rates on secured loans during this period were always some 100 to 200 basis points below the interest rate on total loans for consumption, which includes both secured and unsecured loans. By contrast, a significantly larger amount of lending to households for house purchase is secured. In the period from June 2010 to April 2011, an average of more than 50% of loans for house purchase were fully secured. Only the shortest interest rate fixation band showed a low level of collateralisation. The differences between interest rates for the total item and those on secured loans were far smaller for lending for house purchase than for loans for consumption. For the secured items, interest rates on loans for house purchase were, on average, less than ten basis points below the total item. One explanation for this could be that most of the partially secured loans were likewise backed to a large extent by collateral but not to the full amount of the loan; consequently, these loans are not recorded as fully secured lending in the MFI interest rate statistics but are nonetheless granted at similar conditions to

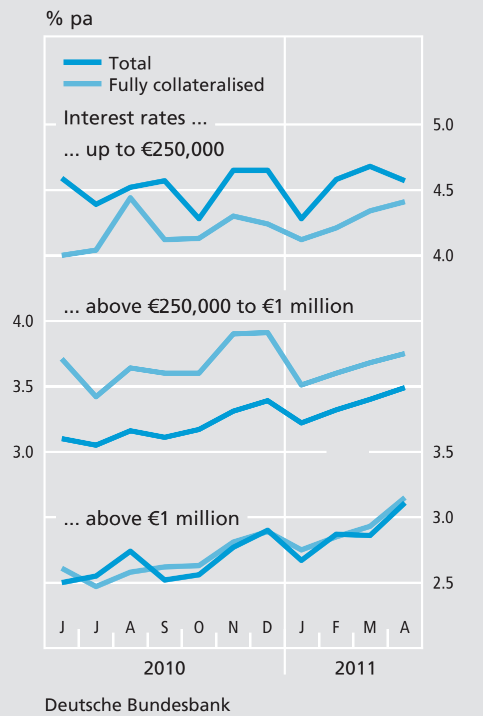
13 Underlying collateral encompasses all collateral instruments which, pursuant to the German Solvency Regulation (Solvabilitätsverordnung), are prudentially eligible under the specific approach selected.

the fully secured loans given that the difference in risk is minimal.

... and to enterprises

In Germany, relatively few loans to non-financial corporations are fully secured. Thus, in the reporting period only around 13% of loans up to an amount of €250,000 were fully secured. By contrast, around 20% of loans in the categories "over an amount of €250,000 and up to €1 million" and "over an amount of €1 million" were reported as being secured. Across all size categories, fewer loans with shorter periods of interest rate fixation tended to be secured than medium-term to long-term loans. Comparing the interest rates of secured items with those of total items reveals a mixed picture. Whilst the interest rate conditions for secured loans up to an amount of €250,000 were cheaper than those for total loans in this size category, the opposite was true of loans over an amount of €250,000 and up to €1 million, for which the interest rate on secured loans was higher than that for the total item. Interest rates on secured and unsecured lending were at almost the same level for loans over an amount of €1 million. Our analysis showed that the interest rate level for non-financial corporations is strongly dependent on the creditworthiness of the borrower as well as on the length and intensity of the business relationship to date (relationship banking). It is therefore possible that customers with lower creditworthiness will often face higher interest rates despite taking out fully secured loans.

Lending rates in corporate business



Refining the sampling procedure and updating the group of reporting agents

Using a sampling procedure to collect MFI interest rate statistics in Germany

When the new reporting requirements were introduced in June 2010, the sampling procedure used in Germany was also revised and the group of reporting agents updated (see also box on page 53). Since they were first collected in 2003, the data for Germany have been based on a stratified sample; this is an alternative to a full census. The advantage of using a sample rather than a full census is that, all in all, it entails far lower costs for the banking system, as only a limited number of institutions from the entire potential reporting population are obliged to report. If the selection of institutions is also representative of the entire potential reporting population and the "sampling error" is small enough, analysts can obtain sufficiently accurate estimates of interest rates and the volume of new business and calculate reliable figures for the German contribution to the euro-area aggregate.

Ensuring the sample is representative

However, a sample can become less representative over time; institutions may leave the sample due to closure and new institutions may join the potential reporting population. Furthermore, the characteristics of reporting agents can change, or new developments in the financial sector may mean that the sample no longer reflects the structure of the entire potential reporting population. For this reason, the interest rate statistics regulation stipulates that the national central banks must check the representativity of their sample on a regular basis and, where appropriate, adjust their sampling procedure or include new reporting agents.

Degree of coverage of the sample

The overhaul of the interest rate statistics sample ensures that the reporting burden on the German banking sector is kept to an absolute minimum and, at the same time, that there are primary data of sufficient quality to obtain the required statistical results. The selection criterion that only the largest institutions per stratum – measured by the relevant balance sheet total – are obliged to report still applies. This ensures that around 70% of the relevant business is captured using around 12% of the potential reporting population, whilst the majority of banks in Germany remain exempt from the requirement to report. These changes have led to a shift in the shares of the individual categories of banks in the sample. Notably, the share of savings banks in the sample has declined from 38% to 30%, whilst that of regional banks and other commercial banks has risen by seven percentage points.

MFI interest rate statistics: selected analytical results

Use of interest rate statistics data in analysis

The data on banks' interest rates and business volumes vis-à-vis households and non-financial corporations recorded in the MFI interest rate statistics are fundamental for the ECB Governing Council's information and decision-making process with regard to monetary policy.[14] The data play a particularly important role in the analysis of the monetary transmission mechanism, which examines the effect of monetary policy changes on real and nominal variables. Data on the interest rates for various types of deposit are also used to explain the role of portfolio shifts in the development of monetary aggregates. These developments are examined in the context of the monetary analysis in order to identify medium-term risks to price stability at an early stage. In addition, the data obtained from the MFI interest rate statistics help in monitoring financial stability and document structural changes in the banking system. Finally, these harmonised statistics can be used to investigate the extent to which the process of interest rate formation for bank loans differs across the individual countries and the level of progress that has been made in the convergence of euro-area markets.[15] In

14 See also European Central Bank, The use of harmonised MFI interest rate statistics, Monthly Bulletin, July 2005, pp 85-92.
15 See European Central Bank (2006), Differences in MFI interest rates across euro area countries.

Changes to the sampling procedures for the MFI interest rate statistics

The first step in changing the sampling procedures for the MFI interest rate statistics was to establish whether, on the basis of the current data, the German sample still fulfils the legal requirements concerning the minimum national sample size. When the MFI interest rate statistics were introduced in 2003, only the data from the Bundesbank's survey of lending and deposit rates – the previous statistics collection system, which is based on a considerably different approach – could be used to determine the size of the sample. To be able to assess how many reporting agents should be included in the sample, the legal provisions stipulate that the interest rates on new business on average over all instrument categories, which are ascertained using the sample and estimated for the entire potential reporting population, should not deviate from the actual (unknown) value for the entire potential reporting population by more than 10 basis points at a confidence level of 90%.[1]

In addition to analysing the sample size, the method for dividing the entire potential reporting population into certain groups (strata) was also assessed.[2] When dividing the institutions into strata, it should generally be ensured that the sample reflects the specific characteristics of the entire potential reporting population. Each stratum should be as homogeneous as possible, ie the business of the MFIs assigned to a particular stratum should be similar.[3] In the case of the German sample, having a minimum of 10 institutions in each stratum has been shown to produce a sufficiently low level of intra-stratum variance. Furthermore, there has been a changeover from the "proportional" approach to "optimal" allocation in the method for dividing the sample into individual strata. Under the proportional approach, the number of institutions to be drawn for each stratum was determined in proportion to its relevant business volume. The advantage of optimal allocation, which has been used since June 2010, is that, given a fixed sample size, a greater number of reporting institutions are allocated to those strata which have a larger variance, thus minimising variance and allowing the estimated value to be calculated more precisely.

The homogeneity criterion

The sum of the intra-stratum variances $\sum_{h=l}^{L}\sum_{i\epsilon h}\frac{1}{n}(x_i-\bar{x}_h)^2$ should be substantially lower than the total variance in the entire actual reporting population $\sum_{i=l}^{n}\frac{1}{n}(x_i-\bar{x})^2$.

n Total number of institutions in the sample

x_i Interest rate for institution i

$\bar{x}_h$ Simple average interest rate of stratum h

$\bar{x}$ Simple average interest rate of all institutions in the sample

$\sum_{h=l}^{L}$ Sum for all L strata

$\sum_{i\epsilon h}$ Sum for all institutions i in stratum h

$\sum_{i=l}^{n}$ Sum for all institutions i in the entire potential reporting population

Optimal (Neyman) allocation

$$n_k=\frac{nN_k\sigma_k}{\sum_{h=l}^{L}N_h\sigma_h}$$

n_k Number of institutions to be drawn from stratum k of the entire potential reporting population

N_k Size of the entire potential reporting population in stratum k

σ_k Standard deviation of stratum k

$\sum_{h=l}^{L}$ Sum for all L strata

This methodological change means that the sample now consists of 17 strata, whereas the original sample in 2003 was divided into 15 strata. This took account of changes in individual banks' business models, while also ensuring that the homogeneity criterion would be fulfilled. On the basis of the current database of harmonised MFI interest rate statistics and the change in the allocation procedure, it was established that the sample of reporting agents needs to be enlarged to around 240 institutions (compared with around 200 in the original sample) in order to comply with the quality requirements which came into force by virtue of the new regulation.

1 The regulation states that the maximum random error for interest rates on new business on average over all instrument categories does not exceed 10 basis points at a confidence level of 90%. In other words, there is a 90% probability that the estimated interest rate will deviate by no more than 10 basis points from the actual (unknown) value. — **2** For a more detailed description of the stratified sample, see Deutsche Bundesbank, The new MFI interest rate statistics – methodology for collecting the German data, Monthly Report, January 2004, pp 45-59. — **3** This is expressed formally in amending Regulation ECB/2009/7 by virtue of a modification to the definition of homogeneity within the individual strata, which states that the strata are considered homogeneous if the sum of the intra-stratum variances of the sample variables is substantially lower than the total variance in the entire actual reporting population.

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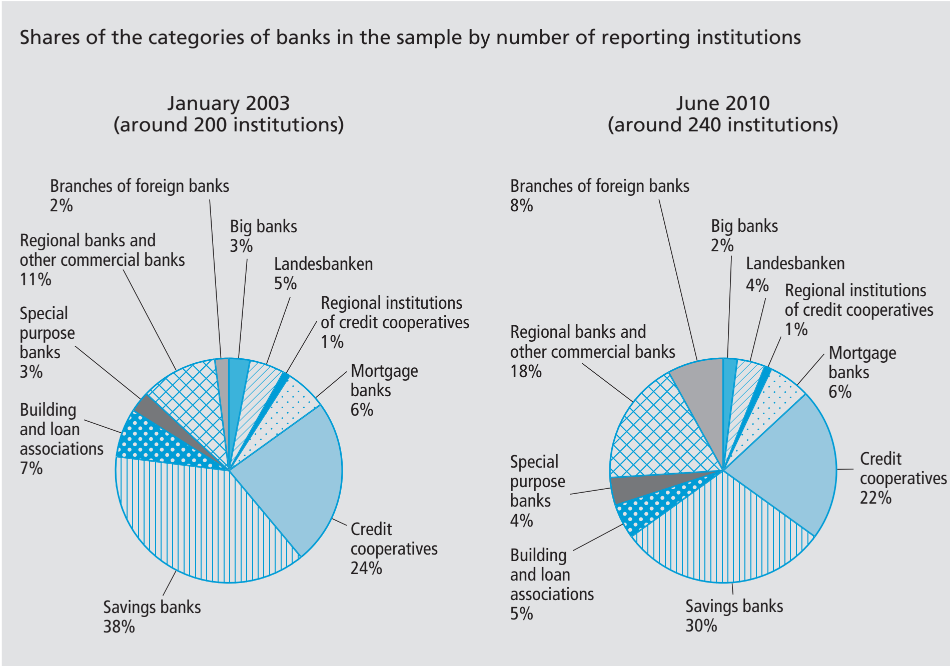
Changes in the composition of the MFI interest rate statistics sample



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the following section, we outline how the MFI interest rate statistics are used, taking the analysis of the transmission mechanism and of the structure of banks' lending and deposit business in Germany as an example.

Analysing the monetary transmission mechanism

The ECB's primary objective is to safeguard price stability within the euro area. As the central bank is not able to control goods prices directly, the Governing Council of the ECB uses the main refinancing rate as a steering tool in its monetary policy decisions. Commercial banks with eligible assets can borrow central bank money at this interest rate. The causal chain through which a change in this interest rate – as a monetary variable – affects other financial and real variables and ultimately the price level is known as the monetary transmission mechanism. Shown in simplified terms by means of the "interest rate channel", a change in the main refinancing rate has a direct impact on the money market, where banks lend to each other. If the conditions on the money market change, banks will then adjust their deposit and lending rates for households and non-financial corporations, which are monitored via the MFI interest rate statistics. In response to these changes in banks' interest rates, households and enterprises will in turn adapt their consumption, saving and investment decisions, which ultimately affects price structures and the general price level.

The interest rate channel as important path for transmitting monetary policy impulses

Empirical studies for the euro area have shown that the interest rate channel normally plays the most important role in transmitting monetary policy stimuli to the real economy.

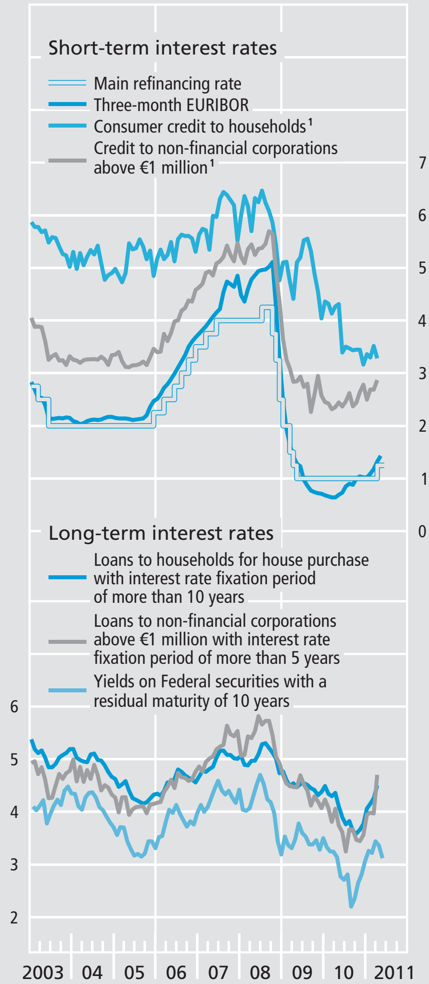
This seems to be particulary true of Germany.[16] The main reason for this is that banks play a key part in the euro-area financial system and therefore have a major influence on the transmission mechanism. A large part of the empirical literature therefore focuses on analysing the transmission of changes in key interest rates to MFIs' interest rates. Here, the main focus is on identifying whether the interest rate pass-through is complete, ie whether the bank interest rates fully replicate the changes in market interest rates and how quickly this transmission takes place.

Stylised facts on interest rate pass-through

The numerous studies on this topic generally show that changes in the conditions on the money markets affect banks' lending rates with a certain adjustment lag. The extent of this interest rate pass-through varies across the various types of bank loan and across countries. Furthermore, the introduction of the euro seems to have led to a structural break in the interest rate pass-through process. A number of analyses using harmonised data from the MFI interest rate statistics thus show that the extent to which banks' interest rates are adapted to market rates has changed and that this adjustment has been more rapid since the euro was introduced. One reason for the differences across countries could be that older studies (which are in the majority) are based on the non-harmonised interest rates in banks' business that were collected before the MFI interest rate statistics were introduced.[17] One newer study based exclusively on the harmonised data from the MFI interest rate statistics concludes that the interest rate pass-through in Germany occurs more quickly than shown by earlier studies and does not differ greatly from the interest rate pass-through in the euro area as a whole. This finding backs up the assumption that previous – non-

Interest rate spectrum at the short and the long end

% pa, monthly



1 With interest rate fixation period of up to one year.

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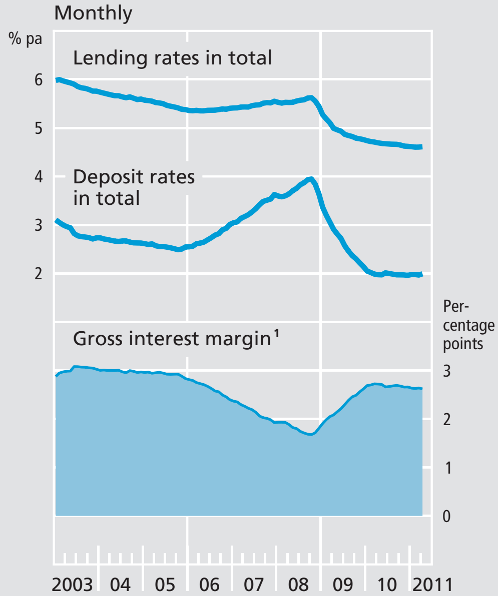
16 See also, for example, I Angeloni et al (2003), Monetary Transmission In The Euro Area: Does The Interest Rate Channel Explain All? NBER Working Paper No 9984.
17 See European Central Bank, The pass-through of market interest rates to MFI lending rates since the start of Stage Three of EMU, Monthly Bulletin, March 2005, Box 5 p 40.

Lending and deposit rates and gross interest margin

Monthly



1 Difference between lending and deposit rates in relation to overall outstanding amounts.

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harmonised – statistics tended to understate the speed of pass-through. However, it could also reflect the increase in convergence after the euro was introduced.[18]

Use of interest rate statistics data to analyse the structure of outstanding loans in Germany

The structural data recorded in the MFI interest rate statistics on lending in the German banking system provide additional information not only on the transmission mechanism but also for other purposes. Looking at the shares of loans to households and non-financial corporations in outstanding business, for example, allows us to analyse the importance of the individual loan categories in Germany. On an annual average for 2010, loans to non-financial corporations made up slightly more than one-third (36.9%) of the outstanding bank loans reported in Germany. The vast majority of outstanding loans were to households, which together accounted for a share of 63.1%. Lending for house purchase made up the lion's share of outstanding loans to this sector (42.9%), whilst loans for consumption and for other purposes had a 20.2% share. Comparing the various loan types by original maturity reveals that loans with maturities of more than 5 years accounted for the largest volume share in all categories. The shares of the individual types of loan were remarkably stable over time. Since the MFI interest rate statistics were introduced in 2003, for example, the share of loans to non-financial corporations in total outstanding loans has increased slightly by 1.5% percentage points, whilst the share accounted for by loans for consumption has decreased by around 2.4 percentage points. There was little change in the importance of loans for house purchase, which rose by only 0.9 percentage point.

Rates on outstanding loans and calculation of interest margins

Interest rates on outstanding loans show that, since 2003, loans to households for consumption and other purposes have, unsurprisingly, been significantly more expensive than loans to non-financial corporations. The average difference amounted to almost 175 basis points. Moreover, it is striking that the interest rates on all loans for house purchase fell over the entire observation period. This is mainly due to the fact that outstanding loans also encompass older loans with very long maturities that were granted at significantly higher interest rates than loans in recent years. Overall, loans to households and non-

18 See J von Borstel (2008), Interest Rate Pass-Through in Germany and the Euro Area, ROME Discussion Paper, No 08-05.

financial corporations bear higher interest rates than the existing deposits held by these sectors. This is also illustrated by the banks' interest margins, which, in this context, can be defined as the difference between the average interest rates on outstanding loans and those on outstanding deposits. These margins declined significantly in Germany from 2003 to October 2008 owing to falling lending rates in mortgage business and the fact that interest rates on deposits rose more sharply than lending rates in the period from 2006 to 2008. This might also be because loans with longer maturities predominate in outstanding business, meaning that the average interest rates are slow to adapt to current market conditions. By contrast, households' holdings of higher-interest short-term deposits rose significantly from mid-2006 onwards as a result of the rise in the ECB's key interest rates, whilst holdings of longer-term deposits remained relatively constant. Another likely reason for the steep rise in deposit rates is the turmoil on the money market that began in mid-2007, which caused liquidity shortages at banks. The banks tried to compensate for the lack of interbank liquidity by taking up more deposits, which they aimed to attract by raising interest rates. Once the ESCB's non-standard monetary policy measures had restored calm on the money market, deposit rates initially declined slightly. There was no sustained fall in deposit rates until the ECB began to lower the main refinancing rate in stages from October 2008 onwards in the wake of the financial crisis. Deposit rates then fell more sharply than lending rates, causing interest margins to widen. However, looking at the gross interest margins provides only an initial indication of the banking sector's financing situation. It is not possible to draw any direct conclusions about banks' earnings situation on this basis given that they often also raise finance through issuing securities, amongst other things, and have other sources of income.[19]

By introducing new categories for collecting data and thus improving the cross-border harmonisation of the MFI interest rate statistics, the overhaul has significantly enhanced the options for analysing cross-border issues. As the database is now sufficiently broad, these issues and the associated analyses will increasingly enter the spotlight in the coming years.

19 See Deutsche Bundesbank, The performance of German credit institutions in 2009, Monthly Report, September 2010, pp 17-36.