The new MFI interest rate statistics – methodology for collecting the German data

Following several years of preparing a strategy for harmonising national interest rate statistics in the countries participating in European monetary union, the new MFI interest rate statistics, collected monthly in a uniform manner, were introduced in January 2003. These statistics provide data on new business in, and outstanding amounts of, all euro-denominated deposits and loans of euro-area monetary financial institutions (MFIs). These data supply essential information for the analysis of monetary developments and the monetary transmission mechanism as well as for monitoring financial stability. The harmonised interest rate statistics supersede the Bundesbank's survey of lending and deposit rates, which had been of interest to many segments of the private sector. The vast difference between the methodology of the German contribution to the new MFI interest rate statistics and the Bundesbank's previous statistics makes it very difficult to compare the two sets of statistics. This article describes the methodology for collecting the German data for the MFI interest rate statistics. It also explains how the new method differs conceptually from the old system and presents key conclusions regarding the interpretation of the two sets of statistics.

Purpose of MFI interest rate statistics

Differing national interest rate statistics had limited the usefulness of euro-area aggregates

The "Implementation Package"[1] of July 1996, in which the European Monetary Institute had compiled all the measures needed to harmonise the methods used by national central banks to collect statistics, already laid the foundation stone for the MFI interest rate statistics, which are to be collected in a uniform manner in all countries participating in European monetary union. Because the work on harmonising the consolidated balance sheet of the euro-area banking sector was a priority task, at first only a short-term approach for interest rate statistics was implemented. To that end, for significant categories of products, non-harmonised interest rates on credit institutions' business with private non-banks, which central banks were already able to provide, were aggregated to produce euro-area interest rates. Owing to differences in data collection methodology across countries, however, these data were only of limited usefulness.

The Bundesbank's statistics on lending and deposit rates used for the short-term approach

The Bundesbank provided data from its survey of lending and deposit rates so that these euro-area interest rates could be calculated. From June 1967 onwards, these statistics contained the interest rates on standardised new deposit and credit business as agreed most frequently within a two-week reporting period by selected credit institutions in Germany with domestic non-bank customers.[2] In July 2003 the Bundesbank's interest rate statistics were superseded by the German contribution to the MFI interest rate statistics. Owing to the relative heterogeneity of banking products and terms across the euro-area

countries, the methodology underpinning the harmonised statistics is more complex than that on which the national statistics had been previously based.

Basis of German contribution to new MFI interest rate statistics

Since January 2003 the MFI interest rate statistics have been collected monthly by all euro-area central banks on the basis of a European Central Bank Regulation.[3] The interest rates applied by MFIs in Germany and the corresponding volumes of new business in the reporting month as well as of all contracts for euro-denominated lending and deposit business with euro-area households and non-financial corporations outstanding at the end of the month form the basis of the German contribution to these statistics.

New interest rate statistics serve monetary and stability policy purposes

The data from the MFI interest rate statistics will be used primarily for analysing monetary developments and the monetary transmission mechanism as well as for monitoring financial stability in the euro area. While deposit rates may indicate, for instance, how components of the money stock are remunerated, lending rates may be used to assess the financing conditions of the economy as a whole. In

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1 See European Monetary Institute, *The statistical requirements for Monetary Union,* July 1996, p 4.
2 The Bundesbank introduced its survey of lending and deposit rates in 1967, just two months after government interest rate controls were lifted, as a means of observing the structure and movement of interest rates in Germany. In the first few years data were reported quarterly; from 1975 reports were returned monthly.
3 Regulation (EC) No 63/2002 of the European Central Bank of 20 December 2001 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 12 January 2002 issue of the Official Journal of the European Communities (OJ 2002 No L 10, p 24) and may also be downloaded from the Bundesbank's website (www.bundesbank.de) by clicking on Statistics/Reporting system/Banking statistics/EWU-Zinsstatistik.

addition, the spreads between lending and deposit rates can be used to judge the current competitive situation and profitability in the banking industry.[4]

The new collection methodology

The scheme for collecting and reporting MFI interest rate statistics comprises average interest rates and business volumes, which need to be computed according to a predefined methodology and classified according to predefined sectors and categories of loans and deposits as well as categories of maturities and amounts.[5]

Conceptual basis for recording outstanding amounts

The survey of lending and deposit rates previously used by the Bundesbank captured new agreements concluded with the majority of customers within the two middle weeks of a month, including extensions of and changes to earlier agreements, without any weighting. By contrast, the new MFI interest rate statistics record not only interest rates on new business but also corresponding information on outstanding amounts of banks' claims on and liabilities to customers as at the last day of each month. When the books are closed on the last day of the reference month, institutions calculate the interest rates and volumes of all outstanding lending and deposit business and derive a volume-weighted average interest rate for each reporting category. Claims relating to existing bad loans and for which loan loss provisions have been formed are excluded, as are loans for debt restructuring at rates below market conditions.

Methodology for collecting new business

Banks use two different procedures for collecting data on new business. In the case of deposits with an agreed maturity, repos and all loans excluding overdrafts, new business encompasses all new agreements between customers and banks during the reporting month. These include all financial arrangements in which terms were agreed for the first time in the reporting month as well as all existing contracts renegotiated with the active involvement of the customers. By contrast, automatic prolongations, changes in variable interest rates caused by contractually predefined interest rate adjustments, or a previously agreed changeover from a fixed rate to a variable rate and vice versa are not regarded as new business. The interest rates are calculated as volume-weighted averages of all new agreements concluded during the reporting month. The second method is applied to overnight deposits, deposits redeemable at notice and bank overdrafts. For these categories of instruments, data on new business are collected – for practical reasons – at the end of the month in question, analogously to outstanding amounts. What this means is that, for these categories of deposits and loans, banks use the business volumes outstanding at the last day of the reporting

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4 See also European Central Bank, *Manual on MFI interest rate statistics,* October 2003, pp 8-9.
5 A reporting scheme of the specific interest rate data collected by banks in Germany may be obtained from the Bundesbank's website (www.bundesbank.de) by clicking on Statistics/Reporting system/Banking statistics/EWU-Zinsstatistik (in German only).

Calculating effective interest rates in the MFI interest rate statistics according to ISMA: "annualised agreed rate", "narrowly defined effective rate" and "annual percentage rate of charge"

The "annualised agreed rate" (AAR) is the interest rate that is individually agreed between the bank and the customer and converted to an annual interest rate. It is a simplified version of the "narrowly defined effective rate" (NDER). If interest capitalisation occurs at regular intervals within the year, the agreed interest rate is annualised using the formula below.

$$x = \left(1 + \frac{r_{ag}}{n}\right)^n - 1$$

x   Annualised agreed rate
r_{ag} Agreed interest rate
n   Number of interest capitalisation periods per year

The NDER is the annualised interest rate which equalises the present value of all commitments other than charges (deposits or loans, payments or repayments, interest payments), future or existing, agreed by the reporting agents and the household or non-financial corporation.

The "annual percentage rate of charge" (APRC) pursuant to Directive 87/102/EEC contains, in addition, any other related costs (eg for enquiries, administration, preparation of documents, guarantees and credit insurance).

An iterative procedure is generally necessary to calculate the NDER and the APRC. For certain loans, they can be calculated as shown below.

$$A = \sum_{n=1}^{N} (CF_n \cdot DF_n) = \sum_{n=1}^{N} \left(CF_n \cdot \left(\frac{1}{1+i}\right)^{\frac{D_n}{365}} \right)$$

A   Credit amount
N   Number of cash flows
CF_n Cash flow n
DF_n Discount factor of cash flow n
D_n Days until cash flow n
i   NDER or APRC

A standard year of 365 days is applied to the calculation of effective rates. The effect of an additional day in a leap year is ignored.

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month and derived from their balance sheet statistics to calculate average interest rates.[6]

Calculating effective interest rates according to ISMA

Whereas the Bundesbank's survey of lending and deposit rates had featured nominal rates in standardised business, the MFI interest rate statistics collect effective interest rates which are to be calculated according to the methods stipulated in Regulation (EC) No 63/2002 of the European Central Bank and which contain not only "market conditions" but also favourable interest rates granted by credit institutions to employees and large customers, for instance. For all types of loans and deposits, the effective interest rates are calculated either as "annualised agreed rates" or as "narrowly defined effective rates" as recommended by the International Securities Market Association (ISMA); apart from the interest payments, no other related costs (such as the cost of enquiries, administration, preparation of documents, guarantees and credit insurance) are factored into the calculation.[7] The only difference between the two methods of calculating effective interest rates is in the underlying

6 Accounts with overnight deposits, deposits redeemable at notice and bank overdrafts are generally host to numerous inpayments and outpayments each month, each of which changes the overall balance. The additional collection over the course of the month of new agreements which are no longer outstanding at the end of the month would have placed an unreasonable reporting burden on the reporting agents; in addition, the business volumes in question would have been expanded disproportionately.
7 A retained disagio is treated just like an interest payment which is due at the start of the contract and included in the calculation of interest rates. However, a bank customer's taxes and subsidies granted by third parties are ignored. This means that government building loan premiums are not included in the calculation of the deposit rates for households' building loan accounts.

method of annualising interest payments.[8] In addition, for the overarching categories of "consumer loans" and "housing loans" to households, the "annual percentage rate of charge" as defined in Directive 87/102/EEC, which comprises the total costs to the customer, is also to be reported.

Breakdown by sector

The MFI interest rate statistics make a clear distinction between "households" and "non-financial corporations" in terms of interest rates and volumes so that the different interest rate structures in MFIs' lending and deposit business with these two customer categories can be observed.[9] Non-financial corporations correspond to the ESA 95 definition and comprise all enterprises (including partnerships) other than banks, insurance companies and other financial institutions. The definition of "households" comprises individuals (including sole proprietors) and non-profit institutions serving households (eg churches, political parties, trades unions or charities).

Breakdown by type of instrument

The objective of harmonising the national interest rate statistics was to establish a uniform system for different banking products in the euro area and to calculate interest rate data for comparable groups of products. In this vein, the instruments which once served as reference variables in the Bundesbank's survey of lending and deposit rates were redefined in the German contribution to the MFI interest rate statistics. The new groups of instruments are generally consistent with the classification principles set out in Regulation (EC) No 2423/2001 of the European Central Bank concerning the consolidated balance

sheet of the monetary financial institutions sector. Deposit liabilities are broken down into overnight deposits, deposits with agreed maturity, deposits redeemable at notice and repos. As regards asset items, loans to households are mostly classified by purpose, ie they are broken down into loans for consumption purposes, housing loans and loans for other purposes. Consumer loans comprise all loans granted for the purchase of goods and services for personal use. Housing loans comprise secured and unsecured loans for investment in housing, including building and home improvements. All other loans to households are grouped together in a residual category called "other loans", which includes loans for debt consolidation, education or business purposes. In addition, bank overdrafts are shown as a separate category under new business. They are defined as debit balances on current accounts. They are generally assumed not to have a defined maturity and may be drawn on without the customer giving prior notice. In a departure from the Bundesbank's earlier practice, bank overdrafts include personal credit lines and current account credit that have been specifically agreed as well as those that are simply tolerated, and the terms of which may also include penalties.

For a variety of analytical purposes the MFI interest rate statistics needed to include an

Breakdown by maturity

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8 These two approaches will lead to identical effective interest rates if interest is capitalised regularly and the frequency of interest capitalisation matches the frequency of redemptions (or, in the case of a loan, the frequency of repayments).
9 The only time a sectoral breakdown is not made is in the case of repos and deposits redeemable at notice; for the latter, deposits of non-financial corporations are allocated to the household sector.

additional detailed breakdown of financial products by maturity categories, ie in terms of the typical features regarding original maturity, notice period or initial rate fixation. In order to be able to examine the interest burden on the non-financial sector, for instance, the outstanding amounts on which interest rates are to be reported are to be broken down by various categories of original maturities in line with the aforementioned Regulation (EC) No 2423/2001. Data on new business should primarily reveal how quickly and to what extent changes in key ECB rates are reflected in banks' lending rates. This means that new deposit contracts are classified either according to original maturity or period of notice, depending on the type of deposit. For new loans, the initial interest rate fixation is the decisive criterion since the period of interest rate fixation is a more important factor than the overall maturity of the loan in determining the newly agreed interest rate. In the new interest rate statistics, variable rate loans are no longer listed separately, as was done by the Bundesbank in the past, but are subsumed under the category "up to one year initial rate fixation".

Breakdown by amount category

The Bundesbank's previous interest rate statistics broke down the interest rates on current account credit, instalment credits and loans to enterprises, as well as time deposits and savings deposits, into amount categories. This enabled the observation of differences in interest rate levels for "smaller" and "larger" contracts as well as of the impact of each customer group's "market power". Had this breakdown of amount categories been adopted for all product categories in the new

MFI interest rate statistics, the added benefit to the users would have been outweighed by the undue reporting burden placed on the reporting agents. Therefore, the tried and tested approach of differentiating by amount was restricted to new loans by MFIs to non-financial enterprises. In this case, interest rates and business volumes are to be listed separately in the amount categories of "up to €1 million" and "over €1 million".
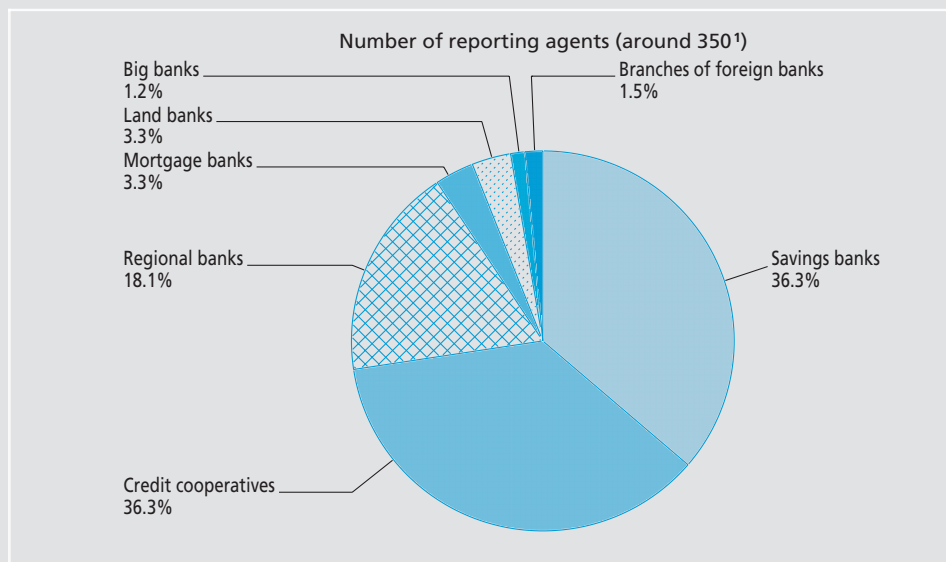
Selection of reporting agents in Germany

The statistical reporting population for the German contribution to the MFI interest rate statistics is composed of a sample of around 200 institutions spread across 15 strata. All MFIs in Germany are subdivided on the basis of a combination of categories of banks and regional criteria, with the largest institutions from each stratum being chosen.

Stratified sample taken by Bundesbank

Around 350 credit institutions of various sizes from nearly all categories of banks and all parts of Germany, with the focus on the regional banking centres, were contributing reports to the Bundesbank's survey of lending and deposit rates by the time they were discontinued. When the previous system was terminated, 15% of the potential reporting population accounted for 53% of the lending and deposit business relevant to the interest rate statistics, whereas in the new MFI interest rate statistics, 8½% of the institutions cover 65% of such business. Of the institutions in the current sample, 40% did not submit statistics for the previous system. Categories of banks previously not recorded

Comparison with Bundesbank's previous survey of lending and deposit rates

Sample share of each category of banks
in the Bundesbank's survey of lending and deposit rates

Number of reporting agents (around 350[1])

Big banks
1.2%

Land banks
3.3%

Mortgage banks
3.3%

Regional banks
18.1%

Credit cooperatives
36.3%

Branches of foreign banks
1.5%

Savings banks
36.3%

1 Not included are the regional institutions of credit cooperatives, banks with special functions and building and loan associations.

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– specifically, the regional institutions of credit cooperatives, banks with special functions and building and loan associations – were included in the new statistical reporting population. Moreover, the selection of the sample for the German contribution to the MFI interest rate statistics placed greater emphasis on major institutions. In the past, some major credit institutions had submitted separate reports for selected branches, whereas in the new MFI interest rate statistics every reporting agent in Germany submits total values for all branches, analogously to the monthly balance sheet statistics. This change of method was intended to streamline the collection of data for the interest rate statistics and balance sheet statistics as much as possible, thus enabling the results obtained to be linked closely. It was for that same reason that Ger-

man reporting agents were not permitted to submit group reports to the MFI interest rate statistics.

The principles underlying the procedure for selecting reporting agents for the MFI interest rate statistics from the potential reporting population are set forth in Regulation (EC) No 63/2002 (in Germany, these comprise all MFIs domiciled in Germany excluding the Bundesbank and money market funds). That document lists those steps which national central banks are to take to define the parameters of the selection procedure and then to choose the reporting agents.

Prescribed method of selecting reporting agents

A fundamental decision had first to be taken as to whether to apply a census or a sampling approach. In a census, all institutions are

Census or sample

Sample share of each category of banks
in the current MFI interest rate statistics

Number of reporting agents (around 200)

Big banks
2.0%

Banks with special functions
2.5%

Land banks
6.5%

Building and
loan associations
6.5%

Mortgage banks
8.5%

Regional banks
13.6%

Regional institutions of credit cooperatives
1.0%

Branches of foreign banks
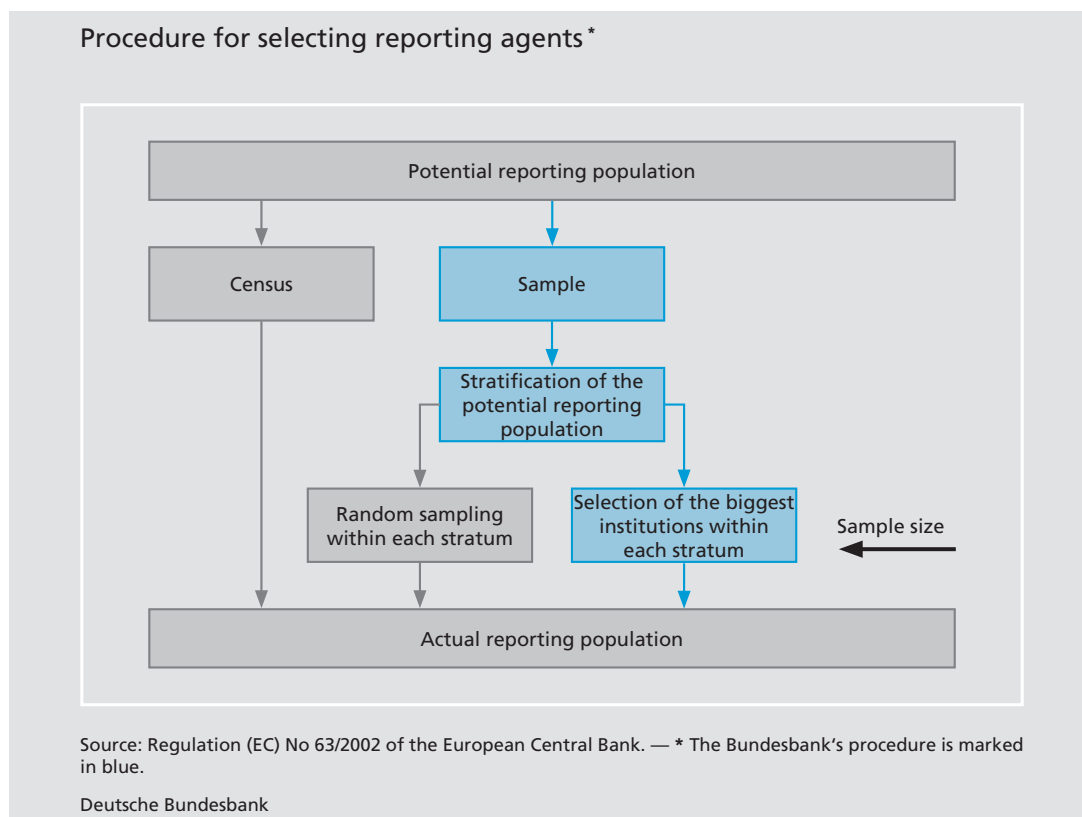1.0%

Savings banks
36.3%

Credit cooperatives
22.1%

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treated equally; however, it places an ex-
tremely great cost burden on the national
banking sector as a whole. Since the idea of
these interest rate statistics is to calculate
"average prices" for various banking prod-
ucts, it is not necessary to survey all partici-
pants in the banking market. A sample can
also enable average prices to be calculated
with a sufficient degree of precision. The new
business volumes necessary for weighting the
national contributions to the euro-area results
can also be grossed up with sufficient accur-
acy for all MFIs using the information sup-
plied by the actual reporting population. The
Bundesbank therefore decided to use a sam-
pling approach to calculate the German con-
tribution to the MFI interest rate statistics. As
fewer than 10% of German banks needed to
be included in the survey, this method en-

abled the total costs associated with the stat-
istical reporting requirements to be kept
tightly in check. To minimise the sampling
error, a representative selection of reporting
agents needed to be made. The information
necessary for this purpose was obtained by
evaluating the Bundesbank's previous survey
of lending and deposit rates and the monthly
balance sheet statistics.

In order to improve the representativity of the
sample, the potential reporting population
was broken down into strata that were as
homogeneous as possible in terms of the MFI
interest rate statistics. The variance decom-
position method, also known as Huygens'
theorem, was used to derive the most con-
venient stratification. It splits up the total vari-
ance of a sample into variance within the

*Stratification of
the potential
reporting
population*

Procedure for selecting reporting agents*

Potential reporting population

Census

Sample

Stratification of the potential reporting population

Random sampling within each stratum

Selection of the biggest institutions within each stratum

Sample size

Actual reporting population

Source: Regulation (EC) No 63/2002 of the European Central Bank. — * The Bundesbank's procedure is marked in blue.

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stratum (intra-stratum variance) and variance between strata (extra-stratum variance). The objective of stratification was for intra-stratum variance to be lower than extra-stratum variance. Besides homogeneity, it was also important to obtain strata which are most conducive to the subsequent analysis of the data. Stratification only by category of banks or only by regional aspects proved incapable of producing satisfactory results. Only a combination of banking group and region ultimately proved to be the right approach. It does not, however, allow results to be broken down by specific categories of banks or selected regions in Germany.

Sample size

Two decisive criteria had to be observed when defining the size of the sample: the number of reporting agents needed to be kept to a minimum while at the same time guaranteeing that the measured results maintained a given standard of accuracy. The average interest rates calculated from the data in the sample were permitted to deviate from the true (unknown) average only by a maximum random error. Using the variance of interest reports estimated from the Bundesbank's survey of lending and deposit rates, it was possible to derive, given this criterion, a necessary sample size of around 200 banks.

Regulation (EC) No 63/2002 lays down three basic methods of determining how many institutions to draw from each stratum. The number of reporting agents may be the same for each stratum, dependent on the variance of the sampling variables or proportional to the size of each stratum. The Bundesbank

Selection of the sample

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Sample size, allowing for a maximum random error

Random sampling without replacement from a finite potential reporting population

$$n = \frac{t_\beta^2 \cdot s_z^2}{D^2 + \frac{t_\beta^2 \cdot s_z^2}{N}}$$

n   Sample size

N   Size of potential reporting population

D   Maximum random error

t_β Upper and lower critical t-values at the confidence level β

s_z Estimated standard deviation in the potential reporting population

Parameters set by the Bundesbank for the initial sample:

$D = 0.1; \beta = 95\%$

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chose the third option. The size of the sample from each stratum was chosen in proportion to the stratum's share in an aggregated volume of loans and deposits derived from the monthly balance sheet statistics. The actual reporting population was selected not at random but because they were the largest institutions in each stratum. This avoided placing a relatively heavy cost burden on smaller institutions, which requiring them to submit reports would have done.

Maintenance of the sample

Changes in the characteristics of the reporting agents, institutions joining and leaving the potential reporting population and new developments in the financial sector can cause the representativity of the sample to diminish over time. Regular reviews are therefore necessary to ensure that the selection of reporting agents is always an accurate reflection of the potential reporting population. The sample is refreshed at least every two years whenever its representativity is no longer sufficiently assured. More reporting agents may be added to the population, and reporting agents may be regrouped to other strata. However, pursuant to Regulation (EC) No 63/2002, no reporting agent is removed from the sample. This restriction is intended to minimise the breaks resulting from changes in the reporting population, thereby ensuring the stability of the time series derived from the MFI interest rate statistics.

Data aggregation procedures

Three levels of aggregation

There are three levels of aggregating data to produce euro-area statistics. Interim results are produced at the two lower levels and serve as the basis for aggregation at the next higher level. The first level of aggregation is made up of data on the lending and deposit business of all branches as submitted by all reporting agents to the Bundesbank. At the next higher level of aggregation, the Bundesbank calculates aggregates for Germany and forwards them to the European Central Bank. At this level of aggregation, the reported interest rates are weighted with the corresponding volumes of new business or outstanding amounts from balance sheet statistics reports submitted by the reporting institutions and then merged to form average values. Volumes of new business are grossed up to form total results for Germany. At the third level, the European Central Bank merges each country's interim results to form euro-

area aggregates, using national volumes of new business or outstanding amounts as weighting factors. To guarantee the quality of the aggregates, the individual components are subjected to a comprehensive range of plausibility checks by both the Bundesbank and the European Central Bank for each individual category of instrument.

Aggregation method used in Bundesbank's survey of lending and deposit rates

The Bundesbank's former survey of lending and deposit rates used a relatively simple aggregation method, calculating average interest rates as unweighted arithmetic averages of the reported interest rates within the spread. The spread was calculated by eliminating the highest 5% and the lowest 5% of the reported interest rates. The rates reported by the individual reporting agents were neither simple average rates nor rates weighted for volumes of contracts; instead, the most frequently agreed interest rate for each category of deposits and loans was to be reported.

New method of aggregating interest rates and volumes of new business

For the volume-weighted average interest rates and the corresponding volumes of new business collected for the new MFI interest rate statistics, specific aggregation methods are used to calculate the statistical results which form the German contribution. In the case of interest rates, the reported volume-weighted average interest rates are used to calculate an overall average per category as an estimation for Germany. A weight is formed here using the volume of loans or deposits which is reported by each institution or which can be calculated from the outstanding amounts. For volumes of new business, it is necessary to use the information provided

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Number of institutions to be drawn from one stratum

$$n_H = n \frac{\sum_{i \in H} V_i}{\sum_{i=1}^{N} V_i}$$

n_H Number of institutions to be drawn from stratum H of the potential reporting population

n Sample size

N Size of potential reporting population

V_i Aggregated volume of loans and deposits of institution i from the monthly balance sheet statistics

$\sum_{i \in H}$ Sum for all institutions from stratum H of the potential reporting population

$\sum_{i=1}^{N}$ Sum for all institutions in the potential reporting population

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by sample members to gross up the figures to form the (unknown) total business for Germany. The Horvitz-Thompson estimator is used for grossing-up.

In this approach, the expansion factor to be applied to a reporting agent depends on its relative weight in its stratum and in the potential reporting population. To calculate this, indicators for the entire potential reporting population are needed. The outstanding amounts from the balance sheet statistics associated with the relevant new business proved to be the best indicators for Germany. On this basis, specific expansion factors are calculated each month for every category of new business and every reporting agent. The stratification of the reporting population is taken into account. In calculating the expan-

Expansion factors applied to new business volumes

Estimating new business volumes

Horvitz-Thompson estimator

$$V = \sum_{i=1}^{n} \frac{V_i}{\pi_i}$$

V   Estimated volume representing the potential reporting population

V_i Volume reported by institution i in the sample

n   Sample size

$\frac{1}{\pi_i}$ Expansion factor for institution i

Computing the expansion factor for a reporting agent

$$\pi_i = n_H \frac{W_i}{\sum\limits_{h \in H} W_h}$$

π_i Inverse of the expansion factor for institution i

n_H Number of institutions drawn from stratum H of the potential reporting population

$\sum\limits_{h \in H}$ Sum for all institutions from stratum H of the potential reporting population

W_i, W_h Outstanding amounts from the monthly balance sheet statistics reported by institutions i and h respectively

The condition $\frac{1}{\pi_i} \geq 1$ must be fulfilled for the expansion factors at all times. If there are special cases in which $\frac{1}{\pi_i} < 1$, this MFI's expansion factor is set at unity and the expansion factors of all other institutions are recalculated based on the exclusion of that MFI.

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sion factors, therefore, it is not the ratio of a reporting agent to the potential reporting population which is the key factor, but only the reporting agent's weight within its own stratum.

Comparison of the Bundesbank's previous survey of lending and deposit rates with the German MFI interest rate statistics

The information contained in the new MFI interest rate statistics is very difficult to compare with the data from the Bundesbank's previous survey of lending and deposit rates because of the vast differences in the collection methodology. Between January and June 2003 data were collected for both the Bundesbank's interest rate statistics as well as for the new MFI interest rate statistics. The differences in interest rates on comparable lending and deposit instruments during this period allow certain conclusions to be drawn regarding the impact of the methodological differences in the collection and compilation. There is an important caveat to observe when interpreting the results: the observations are based on a fairly short parallel collection period lasting only six months. This article now goes on to compare the interest rate results calculated using the two sets of statistics for new business in some important products.[10]

10 A detailed description of how products from the Bundesbank's survey of lending and deposit rates could be transferred to the relevant categories of instruments in the MFI interest rate statistics can be found on the Bundesbank's website (www.bundesbank.de) by clicking on Statistics/Reporting system/Banking statistics/EWU-Zinsstatistik (in German only).
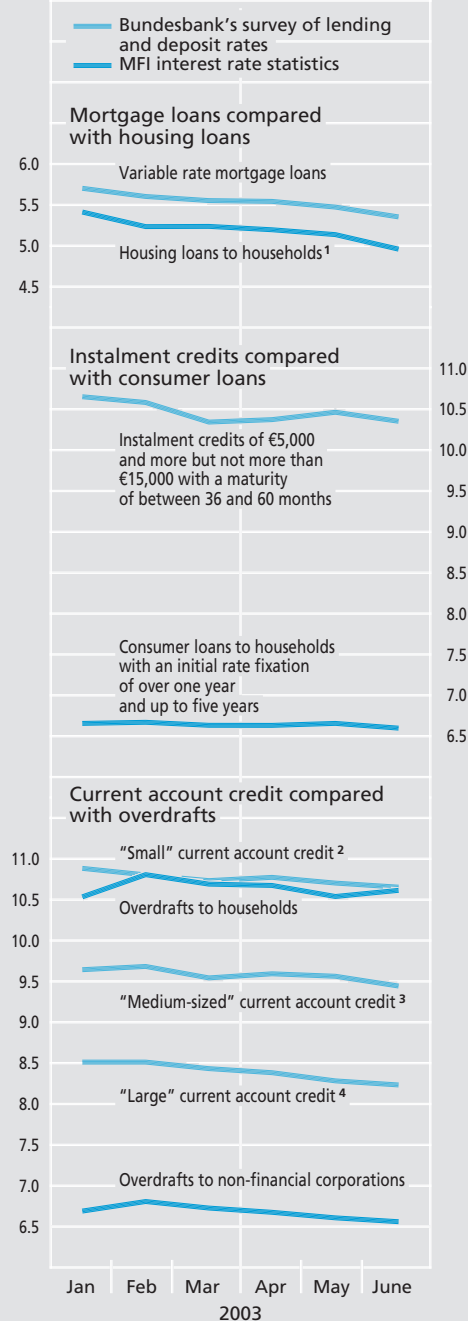
Mortgage loans compared with housing loans

Variable interest rates on mortgage loans secured by residential real estate, which used to be collected separately, are now included in the category of housing loans to households with an initial rate fixation of up to one year. During the overlapping collection period, the results in the new interest rate statistics were somewhat lower than the variable rates. This reflects the influence of mortgage banks, building and loan associations, and large-volume loans at favourable conditions. In the harmonised statistics, what were once collected as rates on mortgage loans with an interest rate fixation of two years and five years are now included in the interest rates on housing loans with an initial rate fixation of over one year and up to five years. What used to be mortgage loans with an interest rate fixation of ten years are now included in the category of housing loans with an initial rate fixation of over five years and up to ten years. In the case of fixed rate mortgage loans, it was impossible to detect a stable correlation between the Bundesbank's statistics and the reference series from the MFI interest rate statistics, a possible reason being that the more broadly defined categories of instruments in the new system include loans with different maturities, which are reflected in the interest rates. Another reason may be that rates on unsecured housing loans, which are generally higher, are included in the new statistics, too.

Instalment credits compared with consumer loans

In the past, users of these statistics were also interested in the prevailing interest rate charged on instalment credits. This is the remuneration of instalment credits having a credit volume of €5,000 and more but not
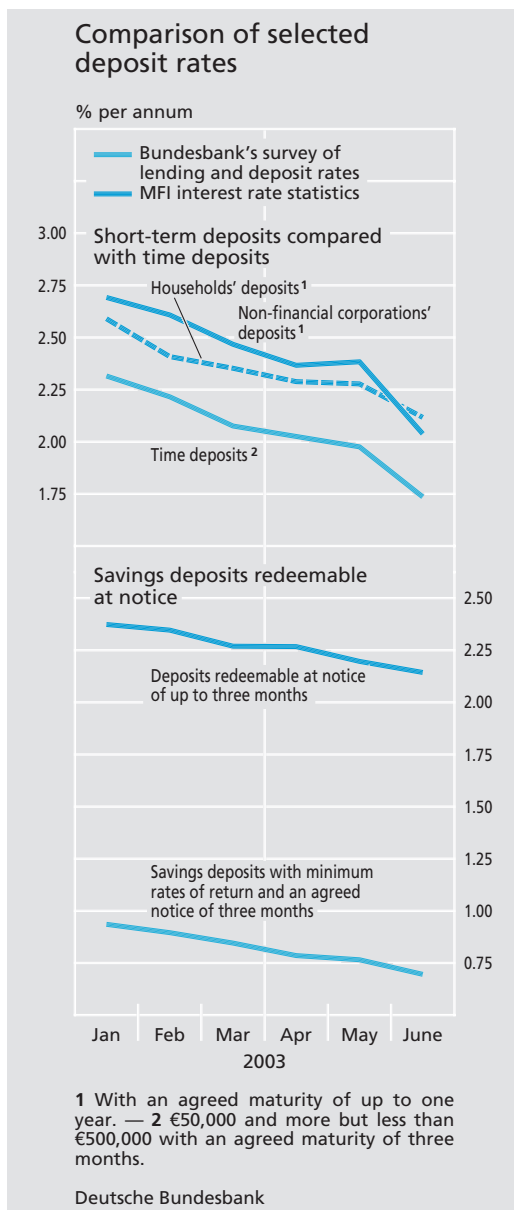

Comparison of selected lending rates

% per annum

— Bundesbank's survey of lending and deposit rates
— MFI interest rate statistics

Mortgage loans compared with housing loans

Variable rate mortgage loans

Housing loans to households [1]

Instalment credits compared with consumer loans

Instalment credits of €5,000 and more but not more than €15,000 with a maturity of between 36 and 60 months

Consumer loans to households with an initial rate fixation of over one year and up to five years

Current account credit compared with overdrafts

"Small" current account credit [2]

Overdrafts to households

"Medium-sized" current account credit [3]

"Large" current account credit [4]

Overdrafts to non-financial corporations

Jan Feb Mar Apr May June
2003

1 With a floating rate or an initial rate fixation of up to one year. — **2** Current account credit of less than €100,000. — **3** Current account credit of €100,000 and more but less than €500,000. — **4** Current account credit of €500,000 and more but less than €2.5 million.

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Comparison of selected deposit rates

% per annum

— Bundesbank's survey of lending and deposit rates
— MFI interest rate statistics

Short-term deposits compared with time deposits

Households' deposits [1]

Non-financial corporations' deposits [1]

Time deposits [2]

3.00
2.75
2.50
2.25
2.00
1.75

Savings deposits redeemable at notice

Deposits redeemable at notice of up to three months

2.50
2.25
2.00
1.75
1.50
1.25
1.00
0.75

Savings deposits with minimum rates of return and an agreed notice of three months

Jan Feb Mar Apr May June
2003

1 With an agreed maturity of up to one year. — **2** €50,000 and more but less than €500,000 with an agreed maturity of three months.

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lower, in fact – than the prevailing interest rates from the previous statistics. One reason is that the reported interest rates on consumer loans in the new statistics do not contain service charges. Another is that special factors, such as the business of automotive banks, are reflected in the new series. Moreover, the category under review now also encompasses larger loan volumes, which are generally associated with more favourable conditions.

Current account credit compared with bank overdrafts

The three categories of current account credit contained in the Bundesbank's former interest rate statistics – less than €100,000, €100,000 and more but less than €500,000 and €500,000 and more but less than €2.5 million – are now indivisibly contained in a single category: bank overdrafts to non-financial corporations. Under the assumption that current account loans under €100,000 are mostly taken up by individuals and self-employed persons, the interest rates on bank overdrafts to households in the MFI interest rate statistics could potentially be used to make comparisons with this category of the former Bundesbank statistics. During the parallel collection period, however, the correlation between these two series was less pronounced than that between "small" current account credit and bank overdrafts to non-financial corporations. On the whole, when comparing the two types of loans, it must be noted that favourable terms for contracts with large customers and special products such as merchant settlement accounts and property development financing, often at rates well below normal conditions, are now contained in the interest rate statistics. This

more than €15,000 and a maturity of between 36 and 60 months as calculated in the Bundesbank's survey of lending and deposit rates. In the MFI interest rate statistics, these loans are recorded as consumer loans to households with an initial rate fixation of over one year and up to five years. During the first half of 2003, the German MFI interest rate statistics for these specific consumer loans were much lower – up to 4 percentage points

means that the average interest rates will tend to be lower than those shown in the previous set of statistics, in which the most frequently agreed interest rate on each type of standardised business was surveyed.

Time deposits compared with deposits with an agreed maturity of up to one year

The rates for the former categories of new agreements on time deposits with an agreed maturity of one month and three months are now recorded in the new statistics as new deposit business of households or non-financial corporations with an agreed maturity of up to one year. The new reporting categories are defined relatively broadly, encompassing other short-term instruments, some of which bear higher interest rates. In the first half of 2003 the trends of three-month time deposits and deposits with an agreed maturity of up to one year appeared to be relatively parallel; in fact, the level of the data in the new MFI interest rate statistics was slightly higher than that shown by the Bundesbank's previous statistical regime.

Savings deposits with an agreed notice of three months compared with deposits redeemable at notice of up to three months

In the case of savings deposits, too, the interest rate series of the two sets of statistics diverge to varying degrees. The rate of savings deposits with an agreed notice of three months (called "savings deposits with a statutory period of notice" until June 1993) and minimum rates of return as defined in the Bundesbank's previous statistics were in common use in Germany as a reference value. In the MFI interest rate statistics, these rates are no longer collected separately but in a "product basket" containing all deposits of households and non-financial corporations redeemable at notice of up to three months. The inclusion of a wider range of different types of

savings deposits – including instruments bearing higher rates of interest such as growth savings accounts, index-linked savings or volume-dependent graduated interest rate agreements – has pushed the average interest rate in the German contribution to the MFI interest rate statistics 1½ percentage points higher than that on the standard savings deposit component in the Bundesbank's former statistics on lending and deposit rates. In addition, the category collected as outstanding amounts at the end of the month contains not only pure new business but also "old contracts" from past periods when interest rates were higher.

Outlook

The new MFI interest rate statistics represent a continuation of the Bundesbank's decades-old practice of making statistics on banks' lending and deposit rates in their retail business available to the public. The methodology for collecting statistics has changed fundamentally, causing unavoidable statistical breaks in the time series. However, the advantage of the new statistical collection system is that the results are based on a harmonised methodology and thus enable national contributions to the statistics to be compared in terms of instrument categories in banks' lending and deposit business as well as their importance in the national financial markets via their respective volume weights. These statistics are therefore highly useful for analysing macroeconomic developments and structural changes.