

# THE USE OF HARMONISED MFI INTEREST RATE STATISTICS

## ARTICLES

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harmonised MFI  
interest  
rate statistics

*Harmonised statistics on interest rates applied by monetary financial institutions (MFIs) to euro-denominated loans and deposits have been compiled by the ECB since the beginning of 2003. This set of data not only makes it possible to better monitor the interest rate transmission mechanism, including the sensitivity of households and non-financial corporations to changes in interest rates, the remuneration of monetary aggregates and structural developments in the banking system, but also allows a better comparison of interest rates across countries.*

## I INTRODUCTION

The availability of reliable and timely information on the interest rates MFIs offer their customers is essential for monetary policy decision-making and analysis in four key areas.<sup>1</sup> First, MFI interest rates are an important element in the transmission of monetary policy to the real economy. It is therefore important to monitor how changes in policy rates of the central bank are passed on, directly and through the money and capital markets, to the interest rates on MFI loans and deposits, thereby influencing consumption, investment and saving decisions by households and non-financial corporations (NFCs) and – ultimately – prices and output. Second, the interest rates on the various deposits help to explain the development of monetary aggregates. Third, MFI interest rates, together with the corresponding business volumes of loans and deposits, provide information with which to monitor structural developments in the banking system and analyse financial stability issues. Fourth, the harmonised statistics provide information on the degree of convergence of interest rates across countries and shed light on the degree of integration of the retail banking markets in the euro area.

At the beginning of 2003, the MFI interest rate statistics replaced the earlier statistics on “retail interest rates”. The new reporting framework provides a harmonised set of 45 euro area interest rates, thereby presenting a more comparable picture across countries and more detailed information on specific categories of deposits and loans. The harmonised statistical reporting requirements are contained in Regulation ECB/2001/18 concerning statistics on interest rates applied

by MFIs to deposits and loans vis-à-vis households and non-financial corporations (hereafter the “Regulation”).<sup>2</sup> It is addressed to a reporting population predominantly comprising credit institutions and defines the statistical standards according to which the MFI interest rate statistics are to be collected and compiled.

The additional breakdowns in the new harmonised statistical reporting framework enhance the available information in a number of ways. One main enhancement is that the MFI interest rates are made available separately for new business (contracts agreed in the reference month) and for outstanding amounts (all open contracts agreed in the past). MFI interest rates on new business reflect the demand and supply conditions in the deposit and loan markets at the time of the agreement and are therefore particularly useful for analysing, for example, the transmission of monetary policy to the interest rates applied by MFIs. By contrast, as MFI interest rates on outstanding amounts cover all open contracts (new and old), they relate to the historical level of interest rates and thereby also reflect decisions taken by MFIs in the past. These data provide information on the interest paid or received by households and non-financial corporations, which facilitates the analysis of developments in disposable income and the interest burden. From the point of view of MFIs, the statistics also refer to the interest paid or received, which permits an analysis of changes in the average interest margins applied by banks.

1 For more details, see the article entitled “Enhancements to MFI balance sheet and interest rate statistics” in the April 2002 issue of the Monthly Bulletin.

2 Official Journal of the European Communities (OJ), L 10, 12 January 2002, p. 24.

A second enhancement applying to both loans and deposits is that the MFI interest rates are broken down systematically into the interest rates offered to households and those offered to non-financial corporations. This is important in order to assess, for example, whether monetary policy is affecting these sectors in different ways.

A third enhancement is that MFI interest rates on new loans are broken down by different periods of initial rate fixation, which provides information on the length of the period for which the interest rates are first fixed. The period of initial rate fixation, and more generally, the variability of interest rates, is also important for an accurate assessment of the effect of monetary policy, as interest rates on loans at floating rates or with short periods of initial rate fixation can be compared with money market rates, while interest rates on loans with longer periods of initial rate fixation can be compared with capital market rates. More detailed information on the period of initial rate fixation therefore enables a more precise calculation of the spread between MFI interest rates on deposits and loans and interest rates in the financial markets. Moreover, the new data on the volume of new business broken down by different periods of initial rate fixation, together with the data on the amounts outstanding, also make it possible to analyse the sensitivity of households and non-financial corporations to changes in interest rates.

A fourth enhancement is that interest rates on new loans to non-financial corporations distinguish between loans of up to €1 million and loans of over €1 million. The size of the loan is one of many criteria that are taken into account when negotiating an interest rate. Finally, a fifth enhancement is that MFI interest rates on bank overdrafts are identified separately from other categories of new lending.

Following more than two years of regular reporting of harmonised MFI interest rates, this article reviews the importance of these

statistics for economic analysis from the perspective of monetary policy. It focuses first on the improvements in the statistical framework and shows the ensuing benefits for regular economic analysis. It then assesses the cross-country diversity and provides a number of possible explanations for these differences. The conclusions summarise the main findings.

## **2 ANALYSIS OF MFI INTEREST RATE STATISTICS FOR THE EURO AREA**

### **REPORTING FRAMEWORK**

The reporting agents for MFI interest rate statistics are selected at the national level by the respective national central bank (NCB). The Regulation allows NCBs either to collect data from a census of the entire reporting population or to use a sample approach. In the case of sampling, minimum standards are defined for the selection of the reporting agents in order to ensure that the resulting statistics give reliable and comparable information on the level and development of interest rates at both the euro area level and the national level. In the light of the diverging institutional structures of the national retail banking systems, and of differences in the deposit and lending products offered, minimum standards were defined for the procedures to be used for sampling reporting agents, rather than imposing a uniform selection procedure for all Member States. In total, about 1,700 reporting agents provide interest rate statistics, which represents a sampling rate of over 25%.

The reporting scheme defines common instrument categories and relies to a great extent on the concepts developed for the ECB's MFI balance sheet statistics.<sup>3</sup> This flexible approach makes it possible to cope both with diverging retail products and with financial

<sup>3</sup> Set out in Regulation (EC) No 2423/2001 of the European Central Bank concerning the consolidated balance sheet of the monetary financial institutions sector (ECB/2001/13), as amended, OJ L 333, 17 December 2001, p. 1.

innovation. Data are collected on interest rates excluding charges for 29 instrument categories in the case of new business and for 14 instrument categories in the case of outstanding amounts (the table provides an overview of the instrument categories). New business covers all new contracts concluded between the respective MFI and its customers during the reporting month and comprises all contracts whose terms and conditions were either agreed for the first time or renegotiated during the reporting period. Outstanding amounts are the stock of all deposits placed by customers with MFIs and the stock of all loans granted by MFIs to customers at the reference point in time, which can be either an end-of-month observation or the average for the month.

The interest rates are constructed as weighted arithmetic averages using the volume of new business or outstanding amounts as weights. The new business volumes are derived from the same survey, whereas the outstanding amounts are available from the ECB's MFI balance sheet statistics. Three instrument categories (namely overnight deposits, deposits redeemable at notice and bank overdrafts) form a separate group: they are listed as new business, but the amount follows the concept of outstanding amounts. In order to assess and monitor charges related to new lending business the annual percentage rate of charge, which covers the total costs of the credit for the borrowers, i.e. the interest payments plus all other charges related to the loan, is collected in addition to the interest rates excluding charges for two instrument categories, namely loans to households for consumption and loans to households for house purchase.

### ANALYSIS OF VOLUMES

According to the average data for the period from January 2003 to April 2005, the weights of households and non-financial corporations with respect to the new business volume for loans, excluding bank overdrafts, were 30% and 70% respectively. In terms of outstanding

amounts, however, the weights were 55% and 45% respectively as an average for the same period. The structural difference between new business and outstanding amounts is caused by the higher average maturity of loans to households as compared with those to non-financial corporations. Loans to households for house purchase are the key to explaining the structural differences between new and outstanding loans in respect of business allocation, given that they are usually granted with long maturity periods.

Focusing on new lending to households, more than half of all new loans (excluding bank overdrafts) were extended for house purchase, while the remaining new lending business was distributed more or less equally between consumer credit and other lending. Around half of the volume of new loans for house purchase was agreed at floating rates or with a short initial period of rate fixation. At the same time, the long-term investment character of house purchase is particularly visible from the outstanding amounts, as the vast majority of such loans has an original maturity of more than five years.

Regarding new loans to non-financial corporations, the importance of floating rates or an initial rate fixation period of up to one year was higher than in the case of loans to households, accounting for more than 85% of all new loans to non-financial corporations (excluding bank overdrafts). At the same time, less than one-third of the outstanding loans to non-financial corporations have an original maturity of up to one year. This indicates a preference for loans with an original maturity of over one year and a short rate fixation period, although it cannot be ruled out that part of the high new business volume for loans with short rate fixation periods reflects the fact that loans with an original maturity of up to one year are likely to be renewed more frequently than others.

New lending volumes also provide some indication of the evolution of the potential

sensitivity of households and non-financial corporations to changes in interest rates. For loans to households for house purchase, the share of new loans at floating rates and with an initial rate fixation of up to one year in new lending for house purchase increased from 45% in January 2003 to 58% in April 2005. Assuming that the rates on such loans remain fixed for a short period also after the first period of rate fixation, and considering that these loans typically have an original maturity of over five years, this development indicates that the importance of variable rate loans for house purchase has increased over the past few years. This may, to some extent, also be the case for loans to non-financial corporations. While non-financial corporations have tended in recent years to lengthen the maturity of their bank loans (as indicated by a decreasing share of loans outstanding with an original maturity of up to one year), the relative share of borrowing at short rate fixation periods has increased in parallel.

For deposits, the average data for the period from January 2003 to April 2005 show a very different maturity structure when comparing new business with outstanding amounts. As regards new deposits with an agreed maturity, the category covering deposits of up to one year predominates, accounting for 95% of the total volume of deposits with agreed maturity, while only 4% fall in the category for new deposits with over two years' maturity. This may reflect the fact that short-term deposits are renewed more frequently than longer-term deposits. Within deposits, repos are the only category for which new business is higher than the outstanding amounts, reflecting an average maturity of less than one month.

#### **ANALYSIS OF DEVELOPMENTS IN MFI INTEREST RATES**

There are a number of areas in which the additional breakdowns for MFI interest rates on new loans and deposits provide further insight. One of the main advantages is the additional breakdown of new loans into

different initial rate fixation categories. The table illustrates that, on average, the new lending rates charged increase with the length of the initial period of rate fixation. This reflects the positive slope, on average, of the risk-free yield curve (as measured, for instance, by the difference between the yield on ten-year government bonds and the three-month EURIBOR) over the period under review. As a consequence, the new breakdown enables a more precise calculation of the spread of MFI interest rates against financial interest rates with comparable maturities.

As regards changes in interest rates, even if only the short period since January 2003 is considered, rates for loans with short rate fixation periods have generally shown a tendency to fall gradually, whereas the evolution of rates for loans with long rate fixation periods has been more volatile. These developments are also reflected in the changes observed in short-term and long-term market interest rates, which suggests that an accurate analysis of the interest rate pass-through requires information on the duration of the interest rates concerned.<sup>4</sup> For the period up to December 2002, i.e. prior to the collection of these new statistics, such an analysis could only be tentative, since retail interest rates on loans did not make a distinction between short and long periods of rate fixation.

The table also demonstrates the importance of distinguishing between bank overdrafts and other loans with short rate fixation periods. For households, the rate on bank overdrafts is more than 310 basis points higher than that on consumer credit with a floating rate and an initial rate fixation of up to one year. For non-financial corporations, the difference between the rate on bank overdrafts and that on other loans (of up to €1 million) with a floating rate and an initial rate fixation of up to one year was considerably lower, but still amounted to

<sup>4</sup> For more detailed information, see, for example, the box entitled "The pass-through of market interest rates to MFI lending rates since the start of Stage Three of EMU" in the March 2005 issue of the Monthly Bulletin.

Table MFI interest rate statistics

(averages between January 2003 and April 2005)

			MFI interest rates		Business volume
			Average (percentages per annum)	Cross-country coefficient of variation <sup>1)</sup>	(EUR billions)
<b>NEW BUSINESS</b>					
<b>Deposits</b>					
Households	Overnight <sup>2)</sup>		0.74	0.48	1,304.4
	With agreed maturity	up to 1 year	2.01	0.08	103.2
		over 1 and up to 2 years	2.29	0.14	2.9
		over 2 years	2.53	0.28	7.9
	Redeemable at notice	up to 3 months' notice <sup>2)</sup>	2.03	0.36	1,424.3
over 3 months' notice <sup>2)</sup>		2.74	0.08	90.7	
NFCs	Overnight <sup>2)</sup>		0.94	0.46	588.2
	With agreed maturity	up to 1 year	2.09	0.03	167.3
		over 1 and up to 2 years	2.38	0.13	0.6
		over 2 years	3.46	0.19	2.5
Repos		2.13	0.04	135.8	
<b>Loans</b>					
Households	Bank overdraft <sup>2)</sup>		9.91	0.16	174.3
	For consumption	floating rate and an initial rate fixation of up to 1 year	6.79	0.27	5.5
		initial rate fixation of over 1 and up to 5 years	6.91	0.13	10.9
		initial rate fixation of over 5 years	8.27	0.11	5.7
	For house purchase	floating rate and an initial rate fixation of up to 1 year	3.59	0.11	24.7
		initial rate fixation of over 1 and up to 5 years	4.14	0.09	7.5
		initial rate fixation of over 5 and up to 10 years	4.80	0.07	8.8
		initial rate fixation of over 10 years	4.70	0.06	8.4
	For other purposes	floating rate and an initial rate fixation of up to 1 year	4.12	0.15	19.6
		initial rate fixation of over 1 and up to 5 years	5.01	0.07	3.2
initial rate fixation of over 5 years		5.02	0.11	3.4	
NFCs	Bank overdraft <sup>2)</sup>		5.54	0.20	469.3
	Other loans up to EUR 1 million	floating rate and an initial rate fixation of up to 1 year	4.12	0.12	61.6
		initial rate fixation of over 1 and up to 5 years	4.80	0.08	5.7
	Other loans over EUR 1 million	initial rate fixation of over 5 years	4.73	0.06	4.0
		floating rate and an initial rate fixation of up to 1 year	3.11	0.08	132.9
	initial rate fixation of over 1 and up to 5 years	3.44	0.13	12.4	
initial rate fixation of over 5 years	4.26	0.10	10.3		
<b>OUTSTANDING AMOUNTS</b>					
<b>Deposits</b>					
Households	With agreed maturity	up to 2 years	2.05	0.11	512.6
		over 2 years	3.36	0.14	604.4
NFCs	With agreed maturity	up to 2 years	2.22	0.08	247.0
		over 2 years	4.14	0.21	60.6
	Repos		2.13	0.07	85.4
<b>Loans</b>					
Households	For house purchases	up to 1 year	4.97	0.12	14.7
		over 1 and up to 5 years	4.84	0.07	65.6
		over 5 years	5.10	0.14	2,302.1
	Consumer credit and other loans	up to 1 year	8.31	0.16	246.9
		over 1 and up to 5 years	7.28	0.13	276.6
		over 5 years	5.97	0.09	623.4
		up to 1 year	4.54	0.14	917.2
NFCs	over 1 and up to 5 years	4.16	0.10	505.9	
	over 5 years	4.70	0.13	1,495.1	

1) The cross-country coefficient of variation is calculated as the weighted standard deviation of interest rates across the countries divided by the euro area average interest rate.

2) The business volumes of these new business instrument categories refer to the amounts outstanding and not to the volume of new agreements within the reference months as is the case for the other new business instrument categories.

around 140 basis points on average. The higher rates on bank overdrafts reflect a premium for the availability of funds and may also include penalties when the overdraft exceeds a limit agreed between the bank and the customer.

The table further illustrates that, on average, larger loans are granted at lower interest rates than smaller loans. The level of MFI interest rates on new loans of up to €1 million exceeded the rate on new loans of over €1 million by around 50 to 135 basis points in the period under observation. In many cases, larger loans are taken up by large non-financial corporations that have more favourable negotiation powers vis-à-vis banks, as they are less dependent on bank financing.

MFI interest rates on new deposits likewise illustrate some differences between non-financial corporations and households, although to a lesser extent than in the case of loans. On average, MFIs remunerate deposits from non-financial corporations more generously than those from households. In the case of overnight deposits, this difference amounts to 20 basis points on average. The difference between the interest rates applied to

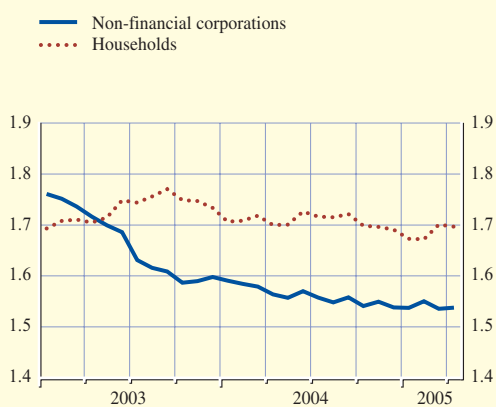
non-financial corporations and households for deposits with an agreed maturity of up to one year, which amounts to 8 basis points, is considerably smaller.

MFI interest rates on amounts outstanding, which have been available since January 2003, indicate that overall bank margins, as measured by the difference between the average interest rate on outstanding loans and that on outstanding deposits, have fallen somewhat over recent years. This may reflect the fact that a large proportion of the loans are granted at a floating rate, or with a short rate fixation period, and that margins may narrow in a phase of declining interest rates as a result of the typical sluggishness with which many deposit rates follow such declines.

MFIs have, on average, charged households higher interest rates on outstanding loans and paid them lower interest rates on outstanding deposits. It is also worth mentioning that it is not possible to draw strong conclusions on bank profitability from MFI interest rates alone, because a significant part of the funding of MFIs is derived from securities (the share of which has increased since January 2003) and

**Chart 1 Net interest payments<sup>1)</sup>**

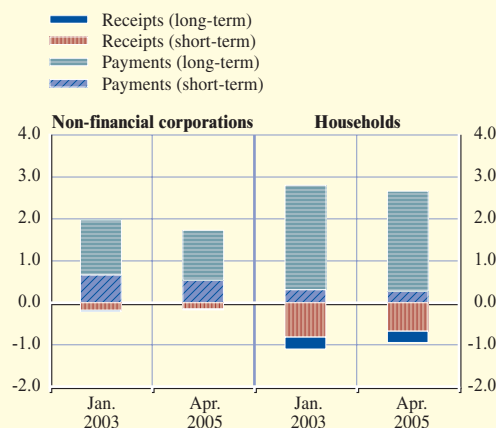
(as a percentage of GDP)



Source: ECB.  
1) Interest paid on euro-denominated MFI loans outstanding minus interest received on euro-denominated MFI deposits outstanding.

**Chart 2 Interest paid and received<sup>1)</sup>**

(as a percentage of GDP)



Source: ECB.  
1) The interest received has been multiplied by -1 for illustrative purposes.

because fees and other sources of income are not captured in MFI interest rates.

Chart 1 illustrates the net interest payments of non-financial corporations and households, calculated as the difference between the interest paid on euro-denominated MFI loans outstanding and the interest received on euro-denominated MFI deposits outstanding. As non-financial corporations are net debtors vis-à-vis MFIs (in the sense that their outstanding loans by far exceed their outstanding deposits),<sup>5</sup> the environment of low interest rates has led to a reduction in the net interest burden, despite the accumulation of corporate debt over the past few years, thereby contributing to an improvement of the cash flow of the corporate sector. Households, by contrast, are net creditors vis-à-vis MFIs (in the sense that their outstanding loans are exceeded by their outstanding deposits). As a consequence, the reduction in interest payments brought about by lower interest rates was partly offset by lower interest receipts, leading – all in all – to a more or less unchanged level of the net interest burden (see also Chart 2).

### 3 REASONS FOR EXISTING CROSS-COUNTRY DIFFERENCES

The harmonised statistics on MFI interest rates allow for a better comparison of interest rates across countries. The table shows that the dispersion of MFI interest rates across countries, as measured by the coefficient of variation, varies considerably from one instrument to another, despite the remarkable convergence of interest rates in the euro area that has taken place in recent years. This section reviews the factors behind the dispersion of MFI interest rates across countries, focusing on new business categories, as these refer to interest rates that are contracted at the same time in the various countries.

First of all, product differences can give rise to differences across countries. For example,

housing finance schemes may require a certain period of prior saving (at interest rates below the retail market rates), after which the saver has a right to a housing loan (in a predetermined amount and at interest rates below the expected retail market rates). These types of scheme may not exist in all euro area countries, or may differ in their main characteristics, meaning that the respective MFI interest rates on deposits from households with an agreed maturity of over two years and on loans to households for house purchase may be affected to varying degrees.

Differing national conventions and practices may likewise lead to differences across countries. Overnight deposits, for instance, may not be remunerated because of prevailing national business practices. In the case of bank overdrafts, large differences can arise from the fact that this loan category reflects high penalty rates in some countries. Moreover, prevailing practices in respect of the early redemption of loans may differ across countries.

MFI interest rates may be affected by national government regulations that predefine a certain level of interest by law. With respect to the MFI interest rate categories, this may affect overnight deposits, deposits with agreed maturity and deposits redeemable at notice. In the case of overnight deposits, for example, a major reason for the high cross-country dispersion was to be found in the existence – until recently – of regulated national rates, as well as to the relatively large differences in the product features of these instruments. Regulations may also require that interest rates on certain loans be capped. To the extent that these caps are binding, they may explain differences across countries, and possibly also asymmetries in the interest rate pass-through.

<sup>5</sup> Information on the financial assets and liabilities of households and non-financial corporations is also available from financial accounts statistics. However, the data on MFI interest rates, together with the statistics on the MFI balance sheets, are more detailed and more timely.

MFI interest rates are collected on a pre-tax basis and do not include direct subsidies granted by the government on loans to, and deposits from, households and non-financial corporations. Nevertheless, by influencing the relative prices of various banking products and, thereby, demand and supply, taxes and subsidies may indirectly affect the weight of subsidised or taxed products within the national MFI interest rates reported. In view of the fact that taxes and subsidies depend on the different policies of national governments, they may contribute to the observed differences in MFI interest rates across countries. Moreover, subsidies could also be granted indirectly by the government – for example, in the form of a government guarantee on loans to certain households for house purchase, resulting in borrowers being charged lower interest rates.

A breakdown of loans by collateral is not required in the current reporting framework. The presence of security in one form or another may affect the level of MFI interest rates. Therefore, the extent to which the use of collateral (including different levels of loan-to-value ratios) differs from one country to another may give rise to differences in the level of MFI lending rates across countries.

An additional factor that may explain interest rate differences across countries is the breadth of the current instrument categories with respect to maturities and initial periods of rate fixation, together with differences in the maturity distribution across countries. Given a normally upward slope of the yield curve, this may lead to different levels of MFI interest rates across countries.

More generally, standard economic theory suggests that the interest rate-setting behaviour of banks can be influenced by a large number of other factors, such as the degree of competition between banks, market contestability, competition from market-based financing and investment possibilities, perceived credit and interest rate risk, funding

costs, the cost of switching banks, the existence of asymmetric information on customers and the strength of the bank-customer relationship. Any significant difference in these factors across countries may give rise to differences in national MFI interest rates, just as they may, indeed, also explain differences within a country.

#### 4 CONCLUSION

Harmonised statistics on interest rates on MFI loans and deposits have been compiled by the ECB since the beginning of 2003. This set of data makes it possible to better monitor the interest rate transmission mechanism, developments in monetary aggregates and structural developments in the banking system, and it also allows a better comparison of interest rates across countries. While the analysis of the business volumes can provide an indication of the relative importance of the respective instrument category at the euro area level, it can also be used to assess the relevance of different products across countries.

After more than two years of reporting, the data collected reveal divergences in the level of interest rates across countries for some instrument categories. The reasons for this dispersion can often be found in the existence of different regulatory arrangements, in differences in national practices and in product characteristics that may also result in different levels of collateralisation and average maturities/rate fixation periods. Consequently, although major improvements were achieved with the MFI interest rate statistics for various types of analysis, it is important to take into account these factors when making cross-country comparisons.