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THE HARMONIZATION OF EUROPEAN STATISTICS ON BANK INTEREST RATES AND THE METHODOLOGY ADOPTED BY ITALY

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Abstract

Regulation 63/2002 (ECB/2001/18) of the European Central Bank extends the harmonization of the statistical information on monetary financial institutions to the interest rates they apply to loans and deposits vis-à-vis households and non-financial corporations. The Regulation, which came into force in January 2003, calls for monthly observations of 45 interest rates relating to new business and outstanding amounts. This paper examines the main features of the Regulation and the methodology adopted by Italy to collect the required data.

Contents

1. Introduction

The interest rates that banks apply to their customers are an important means of transmission of monetary policy to the real economy. Changes in official interest rates decided by the central bank are passed, via the money and financial markets, to the interest rates on bank loans and deposits, thereby influencing households' and firms' consumption, saving and investment decisions.[1]

Since the start of the Third Stage of Monetary Union, the European Central Bank has published, in its Monthly Bulletin, data on ten interest rates applied by banks to euro-area residents. The statistics in question relate to the weighted average of non-harmonized national interest rates.

In conjunction with the review of statistics on the consolidated balance sheet of the monetary financial institutions sector,[2] the Eurosystem also aimed to collect, from 2003 onwards, harmonized information on interest rates applied to loans and deposits that was consistent with the consolidated balance-sheet statistics and able to fulfil the requirements of monetary policy and economic analysis.[3]

Section 2 of this paper describes the objectives underlying the new interest rate statistics and the situation before their introduction. Sections 3 and 4 examine, respectively, the regulatory and methodological aspects of the Regulation. In section 5 we look at its effects in Italy, with special regard to the criteria used to select the sample of reporting agents.

2. The purpose of the new interest rate statistics

Until recently the statistics available on the interest rates applied to deposits and loans in the Monetary Union were very disparate because of the variety of financial instruments, definitions and reporting methods adopted by the member states. Some countries, such as Spain and Portugal, observed the effective interest rates applied by the whole population of banks while others obtained data on the nominal interest rates applied by a sample, and in some instances effective interest rates were defined as being "nominal" because accessory costs (fees and commissions) were not included.

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[1] On this subject see, for example, European Central Bank (2000), European Central Bank (2002-October), De Bondt (2002), Ehrmann et al. (2001) and Gambacorta (2001).

[2] Regulation ECB/2001/13.

[3] For a description of the Regulation see European Central Bank (2002-April), European Central Bank (2003), Banca d'Italia (2002), European Communities (2002).

Substantial differences were also found in the methods used to calculate average interest rates. In Germany, for example, the sample statistics were constructed with simple averages and did not include interest rates outside a set distribution corridor, while other countries used averages weighted according to the volume of the related transactions.

In Italy, until now statistical reports submitted every ten days have been the source of up-to-date information on the main items of banks' accounts and on the interest rates applied to loans and deposits. The statistics are collected from a sample of about 100 banks and provide information on a total of around 20 interest rates applied to outstanding amounts of the main balance-sheet items and to transactions concluded in the relevant ten-day period. Interest rates are calculated for each instrument category as the weighted average of the nominal interest rates applied to individual accounts. The loan and deposit amounts on which the banks base their calculations of the weighted averages are recorded separately[4].

As explained in the introduction, the European Central Bank, which began harmonizing monetary and credit statistics in 1998 starting from the balance-sheet reports submitted by monetary financial institutions (MFIs), has relied to date on the interest rate data already available to national central banks.[5] These data "are not harmonized in terms of coverage (interest rates on flows and/or stocks), nature (nominal or effective interest rates) or method of construction". Consequently, "they should be treated with caution and used only for statistical purposes, principally to analyze their performance over time rather than their level" (see Appendix, Table 1). On the deposit side, the interest rates are those applied to overnight deposits, deposits redeemable at notice and deposits with agreed maturity, while on the lending side the rates applied to loans to firms and households are used, divided by duration and purpose (see Appendix, Table 1).

The principal reason for adopting the new Regulation is to obtain harmonized information on interest rates that is of good quality and sufficiently detailed to allow analysis of the mechanism for the transmission of monetary policy to the real economy. An understanding of how fast and how far economic agents respond to a change in official and market interest rates is essential to complete the picture outlined by developments in the other relevant variables, principally the monetary and credit aggregates. Moreover, the availability of statistics with such characteristics means that

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[4] With the advent of harmonized reporting these statistics have had to be revised. They are now based on a smaller number of variables, and reporting criteria are in line with those defined in the Regulation.

[5] See De Bonis and Farabullini (2000).

reliable additional information can be used to analyze the return on monetary assets and movements in the monetary and credit aggregates; it also makes it easier to study the repercussions of developments in real interest rates on the cost of capital for business.

The relevant interest rates for the above purposes are those applied to customers in the reference periods. They are analyzed together with the volume of new business, which is used for weighting.

Statistics on the interest rates applied to loans and deposits can also contribute significantly, on the macroeconomic level, to the analysis of profitability in the banking sector and of the potential effects of a rise or fall in interest rates on households' and firms' disposable income and on the value of households' financial assets. What is required here is information on the interest rates applied to outstanding amounts, in other words the interest rates on the end-of-period stocks of the main loan and deposit categories. When collecting such data, therefore, a close link must be maintained with MFIs' consolidated balance-sheet statistics.

3. Regulation ECB/2001/18: some regulatory aspects

Regulation 63/2002 (ECB/2001/18) of the European Central Bank extends the harmonization of the statistical information on monetary financial institutions to the interest rates they apply to loans and deposits vis-à-vis households and non-financial corporations. Together with the Regulation on the consolidated balance sheet of the MFI sector (BCE/2001/13), it forms the new framework for ESBC monetary and banking statistics.

As of February 2003 national central banks are required to send the European Central Bank, by the 19th working day after the end of the reference month[6] starting with the January reference month, monthly data on 45 interest rates applied to new business denominated in euros during the month (flows) and amounts outstanding at the end of the period of euro-denominated loans and deposits.

The reporting requirement applies to MFIs resident in the euro area, that is banks and other institutions per Regulation ECB/2001/13,[7] except central banks and money

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[6] For the whole of 2003 it was possible to extend this deadline by a further two working days. Italy did not take up this option.

[7] "For statistical purposes MFIs shall include resident credit institutions as defined by European law and any other resident financial institutions engaged in the taking of deposits and/or equivalent instruments from entities other than MFIs and the granting of loans and/or undertaking of securities investments on their own account".

market funds. The latter are excluded because their balance sheets consist mainly of items, such as short-term securities, for which returns can be deduced directly from market quotations.

The Regulation allows NCBs to choose either a census-based or a sample reporting population; in the latter case it sets the standards for selecting the reporting agents and for the accuracy of statistics.

The types of interest rates to be provided for business concluded during the reference month ("new business") include those on deposits with agreed maturity, classified according to the "initial period of fixation of the interest rate", repos, loans granted to households, classified by purpose (house purchase, consumer credit, other loans[8]), and loans to firms, which are classified by amount, i.e. up to 1 million euros and more than 1 million euros. The interest rates for each instrument category must be calculated as the weighted average of the interest rates applied to new business. Moreover, the interest rate applied to new business in consumer credit and loans for house purchase must be calculated so as to include all accessory costs, in accordance with the provisions of the EC Directive on consumer credit.

For outstanding amounts, the relevant interests rates are those applied to deposits with agreed maturity, classified by contract duration, repos and loans, classified according to purpose if granted to households.

The interest rates applied to overnight deposits, bank overdrafts and deposits redeemable at notice, although classified as new business, must be calculated in the same way as outstanding amounts because of their special characteristics (see Section 4.3).

The statistical information includes the interest rates on supported loans, the rate reported being the total actually entered in the bank's accounts as income or expenditure, regardless of the amount the customer pays or receives. On the other hand, the interest rates on "bad debts" and rescheduled loans are excluded.

At national level NCBs aggregate interest rates by calculating for each instrument category covered an average interest rate weighted by the corresponding loan and deposit amounts. Consequently, the amount of new business in the month is reported by MFIs together with the related interest rates, while outstanding amounts at the end of the period are based on balance-sheet statistics.

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[8] This category consists mainly of loans to producer households (sole proprietorships), which are very numerous in Italy owing to the country's industrial structure.

To obtain the interest rates for the euro area, the ECB calculates an average of national interest rates weighted using the corresponding volumes. For new business NCBs using the sampling approach provide the ECB with an estimate of the total national volume.

For an overview of the interest rates covered by the Regulation the reader is referred to Table 2 of the Appendix.

4. Regulation ECB 2001/18: methodology and application

4.1 Calculation of interest rates

To overcome the problem of the non-uniform collection of statistics, it was necessary to find a method of calculation that would strike a balance between the need for accurate observations of the relevant aggregates, consistent results and fairly flexible regulatory provisions.

The Regulation adopted the solution of calculating effective interest rates, which, unlike the nominal value referred to in contracts, reflect the yield or cost actually received or paid by MFIs and satisfy all the requirements of analysis.

As far as their calculation is concerned, the first point to be made is that the effective yield of a financial transaction can be measured with certainty by computing the rate of interest that equalizes the resulting inflows and outflows (the Internal Rate of Return, or IRR).[9] These flows may consist of the main component only, that is capital and interest, or include all accessory expenses for setting up the contract or disbursing and reimbursing the funds.[10]

The effective rate including accessory expenses has already been used widely in Europe for consumer credit and is provided for in the relevant EC Directive: the APRC, Annual Percentage Rate of Charge (the TAEG; Tasso Annuale Effettivo Globale – *Global Effective Annual Rate* – in Italian legislation).[11]

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[9] The interest rate is calculated using an iterative process until the capitalized outflows and inflows are equalized (see Homer and Liebowitz).

[10] Excluding taxation, since the yields with which we are concerned are pre-tax.

[11] Directive 1987/102/EEC, incorporated in Article 18, Law 142/1992. See also the Treasury Decree of 8 July 1992 "Regulation and definition of the Global Effective Annual Rate of Interest on consumer credit". The composition of accessory expenses may vary in different countries according to the provisions of the national laws transposing the EC Directive while still respecting its classifications (administrative expenses, preparation of documents, insurance). See Seckelmann (1995).

Regarding loans to households for house purchase, although there is no harmonization Directive as yet, in March 2001 the Commission issued a recommendation to the credit institutions offering this type of finance. Since September 2002 European banks have adopted, as an industry code of conduct, a European standardized information sheet (ESIS) that requires the annual percentage rate of charge to be stated, as for consumer credit.

Accordingly, the Regulation only requires observation of the annual percentage rate of charge for new business in consumer credit and loans for house purchase. Compulsory calculation of the annual percentage rate of charge for other instrument categories would have created difficulties for intermediaries that far outweighed the potential benefits in terms of accuracy. In fact, many European countries do not calculate any other interest rates in accordance with the methods set out in Directive EEC/87/102.

Thus, for all transactions other than consumer credit and loans for house purchase the effective rate of interest must be calculated in the same manner as the APRC but without including accessory expenses. The MFIs' task has been further simplified by offering an alternative to the calculation of the effective yield, which does not require them to develop and capitalize all the flows generated by the transaction.[12]

4.2 Identification of transactions during the period

The Regulation defines new business in the period as "every new agreement between the household or the non-financial corporation and the reporting agent". New agreements are:

- all financial contracts, financial terms and conditions that specify for the first time the interest rate of the deposit or loan;
- all new negotiations of existing deposits and loans.

Loan contracts that have been legally completed are reported whether or not all or part of the funds have been disbursed. The banks therefore report the rate of interest on committed loans to be disbursed and on loans disbursed in tranches with reference to

[12] The formula chosen – given that the rate of interest must be regulated for a certain period within the year – gives the corresponding effective annual rate by financial equivalence. In the case of regular instalments this interest rate is the same as that obtained by the APRC method (excluding incidental expenses, of course).

the whole amount and enter it as new business exclusively when the contract is signed.[13] In this way priority is given to the forward-looking knowledge of interest rate movements obtainable from the market.

New negotiations, on the other hand, are identified by examining the terms and conditions of the contract to establish whether or not new business is at stake. A change in just one of the previous terms and conditions, not necessarily the rate of interest, is enough to constitute new business. In the case of the rate of interest, for there to be new business a change must be agreed anew between the parties, otherwise the effects that are relevant for monetary policy analysis would be entirely ascribable to the original agreement, already recorded at some earlier time as new business.

4.3 Measurement times and amounts for the calculation of interest rates

As mentioned in Section 3, the Regulation requires the interest rates on new business to be compiled as the average rates for the period weighted using the amount of the new contracts signed with customers during the month.

The interest rates on outstanding amounts can be calculated using one of two methods. The first uses a snapshot of end-of-period observations of the interest rates applied to balances on accounts at the end of the reference month. The second involves calculating the implicit yield on loans and deposits, being the interest rate obtained as the ratio of the accumulated flow of interest during the reference month and the average outstanding stock. Banks opting for the second system send the data used to calculate the ratio to their NCB, which derives the implicit interest rate reported to the ECB.

The first method is employed by almost all the ESCB countries and has the advantage of using interest rates on amounts that are consistent with those observed in balance-sheet statistics, thereby simplifying the calculations. However, since the method uses interest rates and amounts recorded at the end of the month, it may be affected by one-off events in the last days of the reference period.

The second method requires monthly income statement data as detailed as those on interest rates on outstanding amounts and the calculation of averages of daily data. The Regulation allows averages to be calculated less frequently for less volatile balance-sheet items, i.e. excluding overnight deposits and bank overdrafts. In particular,

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[13] In this way information on interest rates is also obtained from banks' information systems that do not deal with accounting data, such as those used in granting loan facilities. However, funds are usually disbursed to the customer as soon as all the conditions have been fulfilled for concluding the contract.

for loans with an agreed maturity over five years, end-of-period stocks are acceptable until 2005.

Debit and credit balances on current accounts merit separate discussion. They include "overnight deposits and overdrafts" and are subject to continuous inflows and outflows depending on economic trends and the holder's investment decisions. As a rule holders do not compare single movements from a financial perspective, but instead note the total outstanding amount in the accounts at given intervals; they therefore decide whether to maintain assets or exposures for the whole of the period. In any case, the interest rate applied to current accounts, either at the start of a contract or after review, is the same for the client's total exposure. Accordingly, the Regulation requires the interest rates on debit and credit balances on current accounts, including new business, to reflect the balances on outstanding accounts at the end of the reference period[14]. It should be noted that since current account deposits are more popular with Italian savers than with other euro-area citizens[15], Italy made a significant contribution towards defining this aspect.

4.4 Initial period of interest rate fixation: a synthetic variable for the analysis of the time horizon of transactions

With the harmonized reporting system, interest rates on outstanding amounts are divided into broad categories according to the original maturity of the instrument and a specific breakdown is introduced for new loans, the initial period of rate fixation. This is the period of time during which the interest rate cannot change, and in the case of fixed rate instruments with no possibility of switching, it is equivalent to the instrument's original maturity. If the contract provides for changes in the interest rate with respect to its original level, the initial period of rate fixation is no longer the same as the original maturity of the underlying instrument; the initial period of rate fixation of new business follows developments in contracts closely and differs from the original maturity observed for outstanding amounts.

For the purpose of analyzing the impact of monetary policy, a distinction must be made between fixed and floating interest rate agreements. However, such a distinction might have created the same problems within the ESCB as the attempts to find a uniform definition of the interest rate: for example, interest rates that are fixed for an

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[14] The same rule also applies to savings deposits redeemable at notice.

[15] On this point see, for example, Affinito, De Bonis and Farabullini (2003); Gambacorta, Gobbi and Panetta (2001).

agreed period and later become floating rates could be regarded as either fixed or floating according to different national statistical systems. Although the initial period of rate fixation synthetically expresses two observations – the original maturity of the underlying agreement and the corresponding type of interest rate agreed – it can provide information on the variability of the interest rates applied to customers.

Interest rates on outstanding amounts fulfil a different analytical purpose, as explained in Section 2. The reporting scheme refers, as is usual in Italy, to the original maturity of the underlying agreements and contains a wide range of time bands that tie in with the balance-sheet statistics. Original maturity is a proxy for the analysis of such elements as interest rate risk and the effect of interest rates on the disposable income of households and firms. Otherwise, such analyses would have required additional information,[16] thereby raising the overall cost to MFIs of setting up the system for collecting data.

4.5 Selection of reporting agents by sampling

As mentioned in Section 3, the individual countries were allowed to select the reporting agents by using a sampling approach rather than a census. Sampling allows the NCBs to reduce the number of MFIs required to report, as well as the time needed to collect, process and check data. To ensure high quality statistics, i.e. minimal loss of information (sampling errors) in the estimates of key reported variables, the Regulation fixes rules for the selection of national samples. Specifically:

- the reporting population must first be subdivided into homogeneous strata with respect to the reported variables;
- all the strata of the reporting population must be represented in the sample (for instance, if some MFIs are the only ones to offer certain products they must be included among the reporting agents);
- the average sampling error for reported interest rates on new business must not exceed 10 basis points (at a confidence level of 90 per cent);
- the total size of the sample must be such as to allow compliance with this threshold.

[16] Such as residual maturity, repricing interval and separate recording of the proportion of loans and deposits carrying floating interest rates.

In view of the higher relative reporting costs incurred by smaller banks, the Regulation permits the larger banks in each stratum to be selected without using random sampling methods.

Sampling errors evaluation requires the use of mathematical models (that differ according to the sampling system) or non-parametric procedures, such as bootstrap simulations. Both, however, depend largely on the quality of the input data and moreover, since they assume that the sampling procedure randomly selects the members of the population, they may not be entirely appropriate if the largest institutions are extracted from the strata by deterministic process (with probability 1).

The Regulation takes into account the difficulties arising out of the lack of data in the period before the start of reporting and the potential inadequacy of calculating random error simply on the basis of probability theory by providing that during a transitional period up to and including December 2006, the size of the national samples can be determined not on the basis of errors of interest rate estimation but by applying one of the following heuristic criteria:

a) that the sample covers at least 30 per cent of the resident potential reporting population (limited to a maximum of 100 reporting agents), or

b) that the reporting agents in the national sample cover at least 75 per cent of the stock of euro-denominated deposits received from and at least 75 per cent of the stock of euro-denominated loans granted to euro-area residents.

The NCBs are required to check the representativity of the sample at least once a year and make any corrections necessary to the sample of reporting agents to reflect changes in the size or characteristics of the potential reporting population.

4.6 Application of the Regulation within the ESCB

Nearly all the countries belonging to the Monetary Union have chosen to collect information on interest rates using the sampling approach.

The criteria adopted to divide MFIs into homogeneous groups vary considerably from country to country, reflecting the differences in the banking systems. The stratification variables most often used are: type of bank (for example, according to legal status or specialization in product categories or customers), size and geographical location. Some countries stratified the potential reporting population according to factors obtained by multivariate statistical techniques to summarize the numerous types of products offered and terms and conditions applied.

Nearly all countries selected only the largest institutions within the strata. Some central banks that adopted this criterion also drew a small random sample of banks of minor importance.

As a whole, the sample on which euro-area interest rate statistics are based consists of around 1,800 MFIs, representing 25 per cent of the potential reporting population. Owing to the highly asymmetrical distribution of amounts and the structure of the sampling schemes, the sample represents nearly 80 per cent of the stocks of euro-denominated deposits received from and euro-denominated loans granted to households and non-financial corporations resident in the area on which the interest rates are observed.

The Regulation calls on the Governing Council to review the conformity of the procedures adopted by the member states after the start of reporting and then at least every two years. The characteristics of the samples selected by the NCBs for the new statistics are described and evaluated in two monitoring reports submitted to the ECB Governing Council in July and December 2002. Further reports are to be drawn up for 2004 and 2006 to verify the representativity of the samples in relation to the new series and the correct performance of maintenance procedures.

5. Italy's choice of reporting arrangements

5.1 Preparatory analyses for selection of the reporting sample

Italy, like nearly all the other EU countries, chose the sampling method to select reporting agents since it ensures good representation of the aggregates while helping to keep reporting and data processing costs to a minimum.

The sample was selected according to the rules laid down in the Regulation. Existing sample surveys of interest rates were used as a guide for studying the characteristics of the system but had no bearing on the selection of reporting agents.

The characteristics of the potential reporting population were analyzed using the most suitable proxies for the variables to be included in future harmonized observations. In particular, data was examined on 14 instrument categories (8 loans and 6 deposits) used in existing statistics (such as accounting supervisory reports and ten-day statistical reports); the time reference period was that running from June 1999 to September 2001. Whenever mergers or spin-offs occurred, the individual balance sheets of the parties concerned were reconstructed to ensure comparable data.

5.2 Selection of reporting agents by size category

The preliminary subdivision of the potential reporting population into homogeneous strata according to one or more variables allows a priori control to be exercised over the composition of the sample to ensure that all relevant segments of the population are represented. This minimizes the sampling error for the same size of sample or, for a set error threshold, allows a smaller sample to be used.

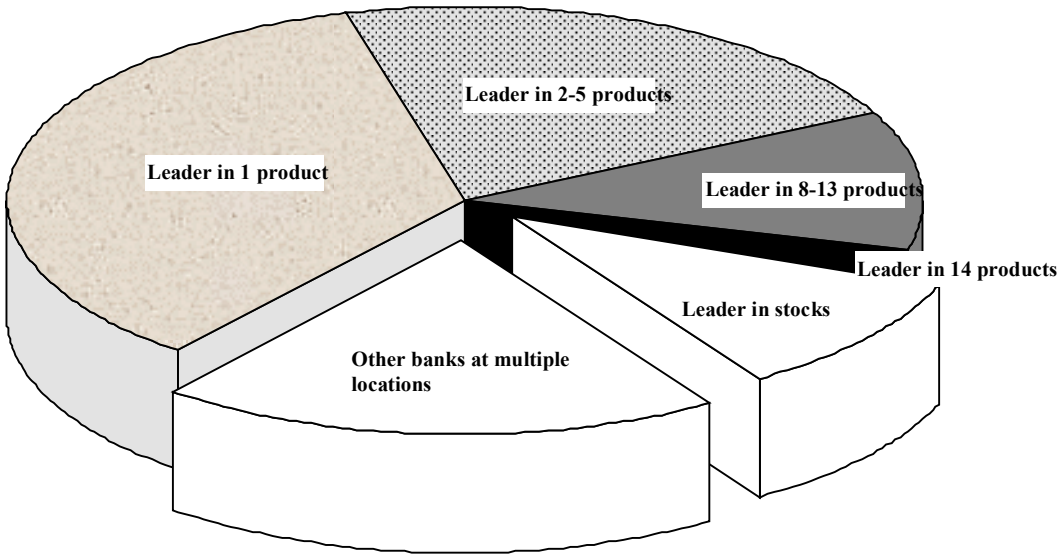
For Italy's statistics the first level of stratification was made according to the size of the reporting agents, which was assessed separately for each instrument category. Banks that on average reported very high amounts of one or more instrument categories in the period considered were placed in a stratum defined "self-representative", the whole of which was selected for reporting. Since the self-representative stratum is the result of census-taking not sampling it cannot lead to sampling errors in the measurement of the interest rates applied by the banking system. Apart from this stratum, a representative sample of reporting banks was selected on the basis of the criterion described in the next section.

Given the limits on the cost of reporting for the collecting NCB and for the reporting agents, selecting the largest institutions is an efficient solution as it obtains a high level of coverage of volumes (and hence of the phenomena) with a relatively small number of reporting agents; and takes account of the relative cost to the latter. By stratifying according to size for each instrument category it is possible to obtain broad coverage of all the reporting variables and ensure that national averages reflect any differences in the interest rates applied by specialized intermediaries.

The size limit for banks to be included in the sample was fixed, for each instrument category, with account taken of the decreasing function of efficiency gains in the estimate of weighted average interest rates on new business: the banks located on the steepest part of the function were included in the self-representative stratum until their cumulative contribution to the reduction of estimate variance equalled 70 per cent of that of a sampling scheme without stratification by volumes. The sample thus identified was supplemented to ensure full coverage of institutions present at national level and across several regions and institutions with relatively small volumes of new business in the reference years but large market shares of end-of-period stocks.

Overall, the self-representative stratum consisted of 60 banks representing, in terms of average stocks in the period considered, 73 per cent of total loans and 71 per cent of total deposits of the potential reporting population. The following pie-chart illustrates the composition of the stratum.

Composition of the self-representative statum:
number of banks by instrument category



5.3 Selection of reporting agents by geographical area

A vast literature has underlined the differences in the prices applied by banks in the North, Centre and South of Italy, attributing them mainly to differences in the composition, characteristics and risk ratings of customers (see, among others, De Bonis and Ferrando, 1997, and Panetta, 2003).

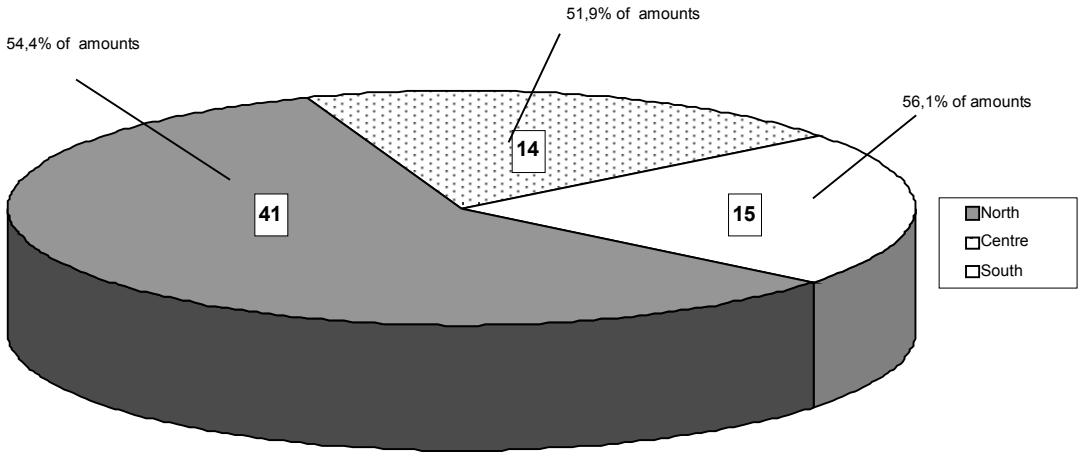
Differences in the average rates of interest by geographical area also emerged during the analysis of suitable proxy variables for reporting (see Figure 1 in the Appendix). In the case of interest rates on loans, regression analysis has confirmed that the geographical dummy is significant for interest rates applied by banks outside the self-representative stratum (i.e. smaller and more locally concentrated banks). Localization, defined as the predominant geographical area of operation, was therefore used as a second level stratification variable for banks not included in the self-representative stratum.

The section of the sample selected by geographical area consists of 70 banks distributed numerically over three strata (North, Centre and South) in the same proportion as in the original population. Within the geographical areas the reporting agents were chosen according to size in order to reduce banks' reporting costs. Size was

calculated on the basis of total stocks of instruments in the period considered covered by the new statistics.

The following pie chart shows the composition of the sample by geographical area and the percentages of the total amount of outstanding loans and deposits of banks not included in the self-representative stratum.

Sample not included in the self-representative stratum:
number of banks and representativity of amounts by geographical area



5.4 The overall size and representativity of the sample

The size of the Italian sample was established taking into account both the transitional provisions annexed to the Regulation based on the representativity of amounts and the initial assessments of random error, which will become the compulsory standard from 2007 (see Section 4.5).

The percentage of loan and deposit amounts exceeds the minimum requirement for each of the proxies, ranging between 80 and 91 per cent for loans and between 77 and 91 per cent for deposits (see Appendix, Tables 3 and 4).

Random error was estimated using the average variability in the period considered of the interest rates used as proxies over the whole population and in the subgroup not included in the self-representative stratum (see Section 5.1 and Appendix, Figure 2). As

was to be expected, the instrument categories with the greatest variability of interest rates are associated with the largest random error. The interest rate variance and the size of the random error are not directly proportional, however, since random error is also affected by the percentage of new business amounts represented by the sample and its monthly fluctuations. Overall, rough estimates indicate that the weighted average error on new business in loans is equal to the 10 basis point limit established by the Regulation (see Appendix, Figure 3). The average weighted error on deposits, which at present can only be calculated for series in which the concept of new business extends to the whole amount of stocks (current accounts and deposits redeemable at notice), is apparently only 2 basis points. On average for the ten loan and deposit categories the error equals 6 basis points.

The availability of new interest rate statistics will allow these estimates to be reviewed, including in the light of any adjustments to the size and/or structure of the sample made in the course of maintenance procedures.

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Appendix: Tables and Charts

Table 1

INTEREST RATES PUBLISHED BY THE ECB

Retail bank interest rates

(percentages per annum; period averages)

	Deposit interest rates						Lending interest rates			
	Overnight	With agreed maturity			Redeemable at notice		To enterprises		To households	
		Up to 1 year	Up to 2 years	Over 2 years	Up to 3 months	Over 3 months	Up to 1 year	Over 1 year	Consumer lending	For house purchase
	1	2	3	4	5	6	7	8	9	10
1999	0.65	2.44	2.45	3.57	2.15	2.76	5.65	5.10	9.39	5.29
2000	0.85	3.45	3.45	4.52	2.25	3.79	6.60	6.23	9.87	6.34
				Euro area enlargement						
2001	0.94	3.49	3.49	4.12	2.40	3.59	6.83	6.15	10.12	5.97
2001 Nov.	0.78	2.84	2.83	3.65	2.19	2.75	6.31	5.71	9.87	5.48
Dec.	0.74	2.79	2.78	3.77	2.17	2.79	6.26	5.69	9.81	5.52
2002 Jan.	0.73	2.77	2.77	3.83	2.17	2.80	6.18	5.63	9.78	5.53
Feb.	0.73	2.78	2.79	3.95	2.15	2.91	6.16	5.75	9.81	5.61
Mar.	0.73	2.84	2.84	4.07	2.15	3.00	6.09	5.85	9.76	5.74
Apr.	0.74	2.89	2.90	4.13	2.14	3.07	6.17	5.95	9.81	5.81
May	0.74	2.91	2.92	4.15	2.15	3.08	6.20	5.98	9.85	5.82
June	0.74	2.93	2.94	4.09	2.13	3.08	6.18	5.92	9.82	5.77
July	0.74	2.89	2.90	4.02	2.13	3.02	6.16	5.79	9.76	5.68
Aug.	0.73	2.84	2.85	3.81	2.12	2.94	6.14	5.70	9.77	5.53
Sep.	0.73	2.77	2.77	3.64	2.13	2.73	6.11	5.61	9.82	5.37
Oct.	0.72	2.74	2.74	3.58	2.11	2.63	6.12	5.54	9.70	5.26
Nov.	0.71	2.70	2.69	3.53	2.11	2.55	6.09	5.50	9.67	5.20

The above interest rates on bank loans and deposits in the euro area should be used with caution and only for statistical purposes, primarily to analyze them in terms of performance over time not of level. The figures refer to the weighted average of national interest rates reported by the national central banks on the basis of available data deemed to correspond to the required categories. National interest rates are aggregated to provide information for the euro area; approximations and estimates are used on occasion in view of the heterogeneous nature of financial instruments in the EU Member States. In addition, interest rates are not harmonized as regards coverage (interest rates on flows and/or stocks), type (nominal or effective) or method of compilation. The country weights used to calculate bank interest rates in the euro area are taken from the monthly balance-sheet statistics of monetary financial institutions or similar aggregates. They take account of the different importance the various instruments have in each euro-area country in terms of stocks. Since the weights are updated on a monthly basis, interest rates and weights refer to the same month.

Source: ECB *Monthly Bulletin* – Table 3.4 – January 2003.

Table 2

INTEREST RATES COVERED BY REGULATION ECB 2001/18

Outstanding amounts

	Counterparty sector	*Instrument*	*Original maturity*
Deposits of	Households	With agreed maturity	Up to 2 years
			Over 2 years
	Non-financial corporations	With agreed maturity	Up to 2 years
			Over 2 years
	Repos		
Loans to	Households	For house purchase	Up to 1 year
			Over 1 and up to 5 years
			Over 5 years
		Consumer credit and other loans	Up to 1 year
			Over 1 and up to 5 years
			Over 5 years
	Non-financial corporations		Up to 1 year
			Over 1 and up to 5 years
			Over 5 years

NOTE. The household sector includes non-profit institutions (ESA95 sectors S.14 and S.15); non-financial corporations (sector S.11) do not include general government.

Table 2 cont.

INTEREST RATES COVERED BY REGULATION ECB 2001/18

New business

	Sector	*Instrument*	*Original maturity/Initial rate fixation*
Deposits of	Households	Overnight deposits	
		With agreed maturity	Up to 1 year
			Over 1 and up to 2 years
			Over 2 years
		Redeemable at notice	Up to 3 months
			Over 3 months
	Non-financial corporations	Overnight deposits	
		With agreed maturity	Up to 1 year
			Over 1 and up to 2 years
			Over 2 years
	Repos		
Loans to	Households	Overdrafts	
		Consumer credit	Floating rate and initial rate fixation up to 1 year
			Initial rate fixation over 1 and up to 5 years
			Initial rate fixation for more than 5 years
		For house purchases	Floating rate and initial rate fixation up to 1 year
			Initial rate fixation over 1 and up to 5 years
			Initial rate fixation over 5 and up to 10 years
			Initial rate fixation for more than 10 years
		Other loans	Floating rate and initial rate fixation up to 1 year
			Initial rate fixation over 1 and up to 5 years
			Initial rate fixation for more than 5 years
Loans to	Non-financial corporations	Overdrafts	
		Other loans up to €1 million	Floating rate and initial rate fixation up to 1 year
			Initial rate fixation over 1 and up to 5 years
			Initial rate fixation for more than 5 years
		Other loans of more than €1 million	Floating rate and initial rate fixation up to 1 year
			Initial rate fixation over 1 and up to 5 years
			Initial rate fixation for more than 5 years

NOTE. In addition, the annual percentage rate of charge (APRC) is compiled for loans to households for consumer credit and for house purchases.

Table 3

Sample and non-sample banks' shares of loans. Outstanding amounts – June 1999 to September 2001

	Loans for house purchase	Consumer credit	Loans for other purposes	Loans to firms < 1 year	Loans to firms 1-5 years	Loans to firms > 5 years	Overdraft facilities of households	Overdraft facilities of firms
Banks in sample	89.9	89.5	79.7	90.2	90.8	89.8	80.9	87.4
Banks not in sample	10.1	10.5	20.3	9.8	9.2	10.2	19.1	12.6
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

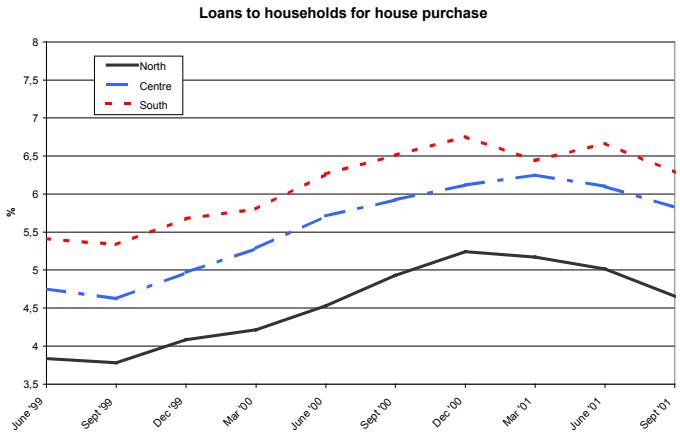
Table 4

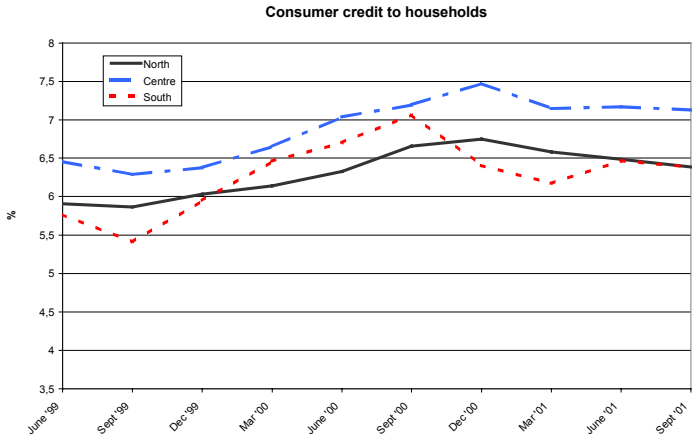
Sample and non-sample banks' shares of deposits. Outstanding amounts – June 1999 to September 2001

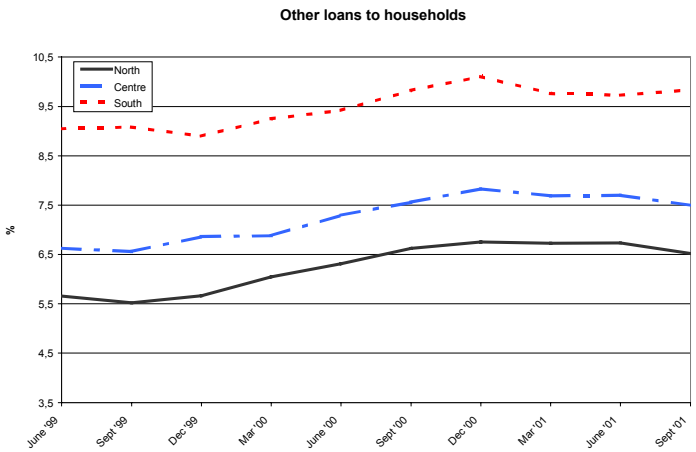
	Current accounts of households	Current accounts of firms	Repos	Deposits maturing <= 2 years	Deposits maturing > 2 years	Deposits redeemable at notice
Banks in sample	87.5	90.8	78.5	84.0	76.8	87.3
Banks not in sample	12.5	9.2	21.5	16.0	23.2	12.7
Total	100.0	100.0	100.0	100.0	100.0	100.0

Figure 1

Interest rates on loans – new business by geographical area
Proxies used to select the sample
Reporting population not included in the self-representative stratum







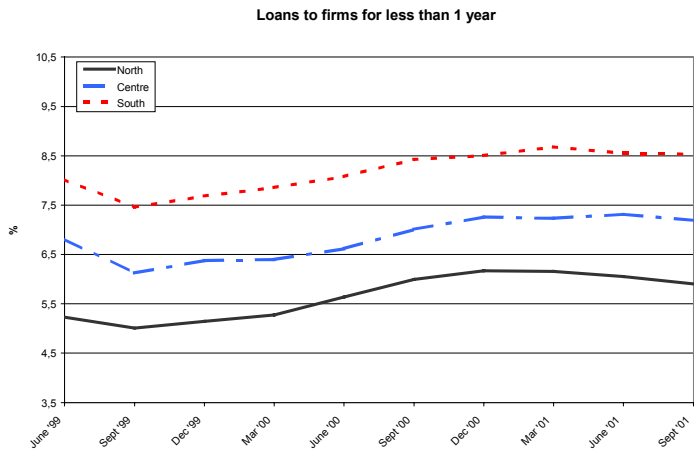
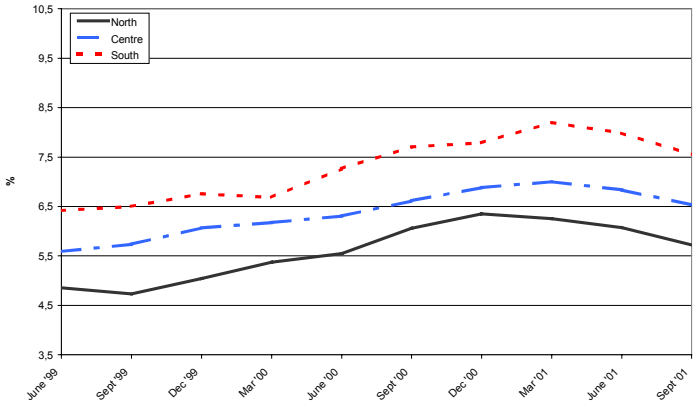


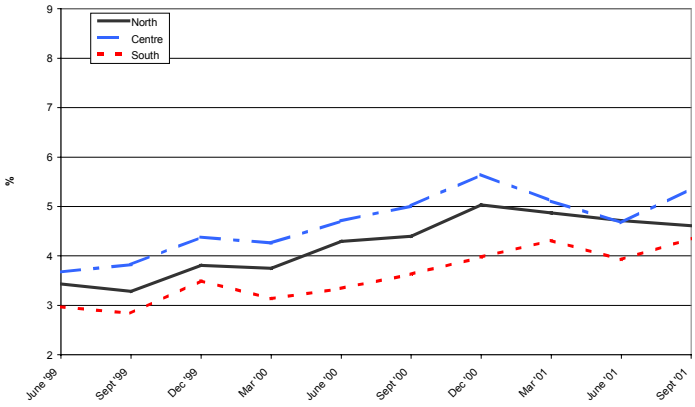
Figure 1 cont.

Interest rates on loans – new business by geographical area
Proxies used to select the sample
Reporting population not included in the self-representative stratum

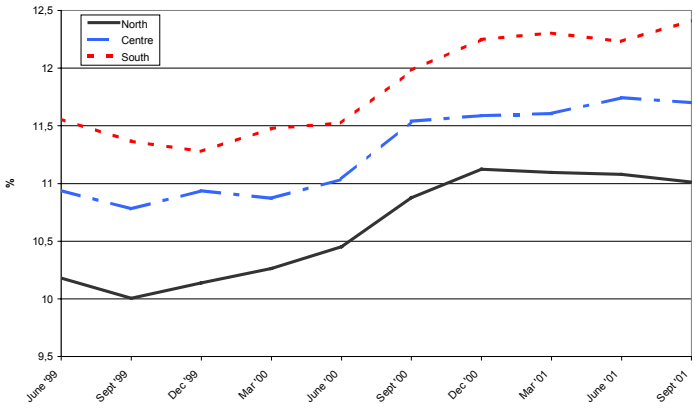
Loans to firms for 1 to 5 years



Loans to firms for more than 5 years



Loans to households: overdrafts



Loans to firms: overdrafts

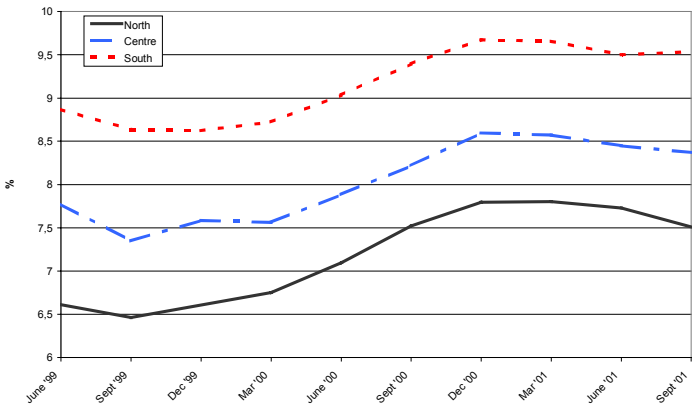


Figure 2

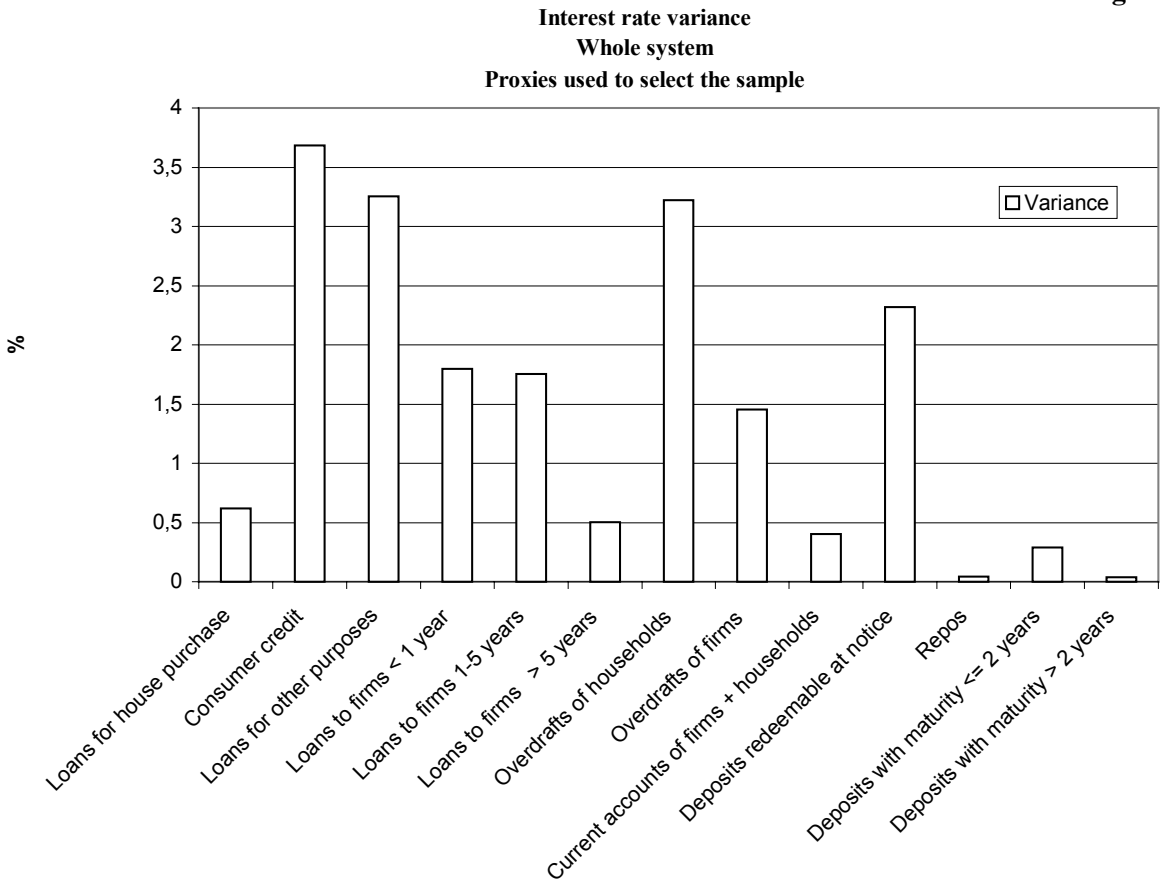


Figure 3