

In case of discrepancies between the French and the English text,  
the French text shall prevail

# **Report S 1.5**

## **«Information on interest rates in EUR»**

**Banque centrale du Luxembourg**

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## 1 Introduction

### 1.1 Reporting population

The ECB regulation ECB/2009/7 concerning statistics on interest rates applied by monetary financial institutions to deposits and loans vis-à-vis households and non-financial corporations foresees the possibility to exempt small institutions from reporting obligations. The derogations shall be granted according to the credit institution's share in the aggregated credits and deposits vis-à-vis non financial corporations and households of all resident credit institutions.

The selection of credit institutions subject to reporting requirements is done by the BCL that will grant derogations as long as the coverage of data collection will be in line with requirements set by ECB regulation ECB/2009/7.

Thus, report S 1.5 «Information on interest rates in EUR» has to be provided by a sample of credit institutions that is revised on a yearly basis. The credit institutions that will have to submit report S 1.5 will be informed by mail.

### 1.2 Frequency and reporting deadlines

Report S 1.5 must be provided to BCL on a monthly basis no later than 14 working days after the end of the reference period.

The exact reporting dates for the statistical reporting are published on the website of the BCL (<http://www.bcl.lu>).

### 1.3 Remark regarding abbreviations

It is important to mention that the abbreviations used on the report are taken from the original (French) language source.

This choice has been made in order to have a consistent relationship between the report and the xml structure. Thus, for example, the abbreviation used for «annualised agreed rate» is TCA (i.e. *taux contractuel annualisée*) instead of AAR. ~~This choice has been made in order to behave a consistent relationship between with the report and as the xml structure.~~



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## 2 Types of breakdowns

Assets and liabilities must be split according to the following criteria:

- category of amount
- initial period of interest rate fixation
- country of the counterpart
- currency in which assets and liabilities are expressed
- economic sector of the counterpart
- initial maturity
- coverage of the credit risk with guarantees

The nomenclature and the codes to use are detailed in the document «Definitions and concepts for the statistical reporting of credit institutions».

The nomenclature for the criteria of amount and initial period of interest rate fixation are detailed hereafter.

However, assets and liabilities must not always be split according to all of these breakdowns. Hence, only the breakdowns requested in the reporting instructions and in report S 1.5 attached to the present instructions must be reported to BCL.

In addition, different breakdowns have to be provided for interest rates on outstanding amounts and interest rates on new businesses.

### 2.1 The breakdown applicable to outstanding amounts and new businesses

#### 2.1.1 Country

Only credits and deposits vis-à-vis counterparts resident in the euro area have to be reported.

### 2.1.2 Currency

Only credits and deposits in EUR have to be reported.

### 2.1.3 Economic sector

Only credits and deposits vis-à-vis the following sectors have to be reported:

- non financial corporations
- households and non profits institutions serving households

### 2.1.4 Initial maturity

The breakdown by initial maturity has to be done according to time bands or ranges.

For instance an interest rate on a deposit with an agreed maturity of up to two years refers to an average rate across all deposits with an agreed original maturity between two days and a maximum of two years, weighted by size of the deposit.

The breakdown by initial maturity of credits and deposits varies for outstanding amounts and new businesses.

#### 2.1.4.1 Instrument categories for interest rates on outstanding amounts

Credits must be broken down into the following three classes:

- $\leq 1$  year
- $> 1$  year and  $\leq 5$  years
- $> 5$  years

Deposits with agreed maturity must be broken down into the following two classes:

- $\leq 2$  years
- $> 2$  years

Deposits redeemable at notice must be broken down into the following two classes:

- $\leq 3$  months
- $> 3$  months

#### **2.1.4.2 Instrument categories for interest rates on new businesses**

Deposits with agreed maturity must be broken down into the following two classes:

- $\leq 1$  year
- $> 1$  year and  $\leq 2$  years
- $> 2$  years

Deposits redeemable at notice must be broken down into the following two classes:

- $\leq 3$  months
- $> 3$  months

## **2.2 Breakdowns applicable to new businesses**

### **2.2.1 Coverage of the risk with collateral and/or guarantees**

For new business with non-financial corporations and households, the volume of the credits and the associated interest rates must be reported twice:

loans and overdrafts, and lending for other purposes

- for all credits **where:**
  - **AMT** represents the gross total amount of credits
  - **TCA** represents the annualised interest rate
- for credits secured with collateral and/or guarantees **where:**
  - **AMG** represents the gross total amount credits that are collateralised
  - **TCG** represents the annualised interest rate on collateralised credits

This does not apply to credit card debt, revolving loans and overdrafts as well lending for other purposes.

### 2.2.1.1 Total credits

This category consists of all credits regardless of the coverage with guarantees or not.

### 2.2.1.2 Secured credits

This category consists only of the new businesses that are collateralised and/or guaranteed using:

- funded credit protection technique as defined in Article 4(31) and Annex VIII, Part 1, 18 Sections 6-25 of Directive 2006/48/EC of the European Parliament and of the Council of 14 June 2006 relating to the taking up and pursuit of the business of credit institutions (recast)
- unfunded credit protection' technique as defined in Article 4(32) and Annex VIII, Part 1 Sections 26-29 of Directive 2006/48/EC, in such a way that the value of the collateral and/or guarantee is higher than or equal to the total amount of the loan

If a credit institution applies a system different from the standardised approach as defined in Directive 2006/48/EC for supervisory purposes, it may also apply the same treatment in the reporting of credits to be provided in report S 1.5.

## 2.2.2 Category of the amount

For credits granted to non financial corporations, a breakdown according to the following three categories of amount has to be provided:

- amount up to and including 0,25 million euro (250.000 euro)
- amount over 0,25 million euro up to and including 1 million euro
- amount over 1 million euro

The amount refers to the single loan transaction considered as new business, rather than to all business between the non-financial corporation and the reporting agent.

### 2.2.3 Initial period of interest rate fixation

Depending on the type of instrument and on whether the credit institution's interest rate refers to outstanding amounts or to new business, the statistics provide a breakdown by original maturity, period of notice and/or initial period of fixation of the rate.

These breakdowns refer to time bands or ranges, for example an interest rate on a deposit with an agreed maturity of up to two years refers to an average rate across all deposits with an agreed original maturity between two days and a maximum of two years, weighted by size of the deposit.

The lending interest rates on new business are broken down by the initial period of interest rate fixation contained in the contract. For the purpose of interest rate statistics, the initial period of fixation is defined as a predetermined period of time at the start of a contract during which the value of the interest rate will not change. The initial period of fixation may be shorter than or equal to the original maturity of the loan.

The value of the interest rate is only considered to be unchangeable if it is defined as an exact level, for example as 10%, or as differential to a reference rate at a fixed point in time. For example as 6-month EURIBOR plus 2 percentage points at a certain predetermined day and time. If at the start of the contract a procedure to calculate the lending rate is agreed between the household or non-financial corporation and the reporting agent for a certain period of time, for example 6-month EURIBOR plus 2 percentage points for three years, this is not considered to be an initial rate fixation as the value of the interest rate may change during these three years.

The interest rate statistics on new lending business only reflect the interest rate that is agreed for the initial period of fixation at the start of a contract or after renegotiation of the loan. If after this initial period of fixation the interest rate automatically changes to a floating rate, this is not reflected in the interest rates on new business but only in those on outstanding amounts.

For consumer credits, credits for house purchase and other credits granted to households as well as credits granted to non financial corporations, the initial periods of interest rate fixation are broken down into:

Code	Period of initial interest rate fixation
CRA	Floating rate and up to (and including) 3 months initial rate fixation
CRB	Over 3 months and up to (and including) 1 year initial rate fixation
CRC	Over 1 and up to (and including) 3 years initial rate fixation
CRD	Over 3 and up to (and including) 5 years initial rate fixation
CRE	Over 5 and up to (and including) 10 years initial rate fixation
CRF	Over 10 years initial rate fixation

For the purposes of interest rate statistics, floating rate is defined as the interest rate that is subject to interest revisions on a continuous basis (e.g. every day) or at the discretion of the credit institution.

In addition, for non financial corporations, credits with an initial maturity over 1 year and a period of interest rate fixation of less than 1 year must be reported separately. The following codification shall be used for that purpose:

Code	Period of initial interest rate fixation
CRZ	Initial maturity over 1 year and a period of interest rate fixation of less than 1 year

### 3 Methodological notes

#### 3.1 Type of rate

##### 3.1.1 Convention

Reporting agents apply a standard year of 365 days for the compilation of the **AARTCA**, i.e. the effect of an additional day in leap years is ignored.

##### 3.1.2 Annualised agreed rate (**AAR=TCA (fr reporting) (AAR)**)

###### 3.1.2.1 Basic principles

The type of rate that reporting agents provide for all instrument categories of deposits and loans referring to new business and outstanding amounts is the annualised agreed rate (**TCAAAR**). It is defined as the interest rate that is individually agreed between the reporting agent and the household or non-financial corporation for a deposit or loan, converted to an annual basis and quoted in percentages per annum. The **TCAAAR** covers all interest payments on deposits and loans, but no other charges that may apply. Disagio, defined as the difference between the nominal amount of the loan and the amount received by the customer, is considered as an interest payment at the start of the contract (time  $t_0$ ) and is therefore reflected in the **TCAAAR**.

If interest payments agreed between the reporting agent and the household or non-financial corporation are capitalised at regular intervals within a year, for example per month or quarter rather than per annum, the agreed rate is annualised by means of the following formula to derive the annualised agreed rate:

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

where:

- $i$  as the annualised agreed rate (TCAAAR)
- $r_{ag}$  as the interest rate per annum that is agreed between the reporting agents and the household or non-financial corporation for a deposit or loan where the dates of the interest capitalisation of the deposit and all the payments and repayments of the loan are at regular intervals within the year
- $n$  as the number of interest capitalisation periods for the deposit and (re)payment periods for the loan per year, i.e. 1 for yearly payments, 2 for semi-annual payments, 4 for quarterly payments and 12 for monthly payments

Example 1:

A credit institution grants a loan with the following characteristics:

- maturity 5 years
- interest rate of 10% per year for the whole duration of the credit
- interest is capitalised at the end of each quarter and the principal has to be repaid at the end of the fifth year

The annualised agreed rate  $i$  is compiled as follows:

$$i = \left(1 + \frac{r_{ag}}{n}\right)^n - 1 = \left(1 + \frac{0,10}{4}\right)^4 - 1 = 0,10381289$$

If in that example, the capitalisation of interest is done on a monthly basis, the annualised agreed rate to be provided on report S 1.5 «Information on interest rates in EUR», would be slightly higher, notably:

$$i = \left(1 + \frac{r_{ag}}{n}\right)^n - 1 = \left(1 + \frac{0,10}{12}\right)^{12} - 1 = 0,10471307$$

**Example 2:**

A credit institutions receives at the following conditions:

- an amount of 10 000 euro placed for 2 years
- an amount of 11 000 euro is repaid to the customer after 2 years
- thus, the customer receives 10% on his initial capital

The annualised agreed rate is compiled as follows:

$$i = \left(1 + \frac{r_{ag}}{n}\right)^n - 1 = \left(1 + \frac{0,10}{\frac{1}{2}}\right)^{\frac{1}{2}} - 1 = 0,0488084$$

### 3.1.3 Annualised agreed rate on collateralised credits (TCG)

#### 3.1.3.1 Basic principles

The type of rate that reporting agents provide for collateralised loans according to the present instructions (see point 2.2.1) referring to new business is the annualised agreed rate on collateralised loans (TCG). It is defined as the interest rate that is individually agreed between the reporting agent and the household or non-financial corporation for a loan collateralised according to the present instructions (see point 2.2.1), converted to an annual basis and quoted in percentages per annum. The TCG covers all interest payments on deposits and loans, but no other charges that may apply. Disagio, defined as the difference between the nominal amount of the loan and the amount received by the customer, is considered as an interest payment at the start of the contract (time  $t_0$ ) and is therefore reflected in the TCG.

If interest payments agreed between the reporting agent and the household or non-financial corporation are capitalised at regular intervals within a year, for example per month or quarter rather than per annum, the agreed rate is annualised by means of the following formula to derive the annualised agreed rate:

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



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where:

$i$  as the annualised agreed rate (TCG)

$r_{ag}$  as the interest rate per annum that is agreed between the reporting agents and the household or non-financial corporation for a loan collateralised according to the present instructions (see point 2.2.1) where the dates of the interest capitalisation of the deposit and all the payments and repayments of the loan are at regular intervals within the year

$n$  as the number of (re)payment periods for a loan collateralised according to the present instructions (see point 2.2.1) per year, i.e. 1 for yearly payments, 2 for semi-annual payments, 4 for quarterly payments and 12 for monthly payments

Example 1:

A credit institution grants a collateralised loan with the following characteristics:

- maturity 5 years
- interest rate of 10% per year for the whole duration of the credit
- interest is capitalised at the end of each quarter and the principal has to be repaid at the end of the fifth year

The annualised agreed rate  $i$  is compiled as follows:

$$i = \left(1 + \frac{r_{ag}}{n}\right)^n - 1 = \left(1 + \frac{0,10}{4}\right)^4 - 1 = 0,10381289$$

If in that example, the capitalisation of interest is done on a monthly basis, the annualised agreed rate to be provided on report S 1.5 «Information on interest rates in EUR», would be slightly higher, notably:

$$i = \left(1 + \frac{r_{ag}}{n}\right)^n - 1 = \left(1 + \frac{0,10}{12}\right)^{12} - 1 = 0,10471307$$

### **3.1.2.23.1.3.2 Treatment of taxes, subsidies and regulatory arrangements**

The interest payments covered in the ~~TCA~~ and/or the ~~TCGAAR~~ reflect what the reporting agent pays on deposits and receives for loans. Where the amount paid by one party and received by the other differs, the point of view of the reporting agent determines the interest rate reported for the purposes of report S 1.5 «Information on interest rates in EUR».

Following this principle, interest rates are recorded on a gross basis before tax, since the pre-tax interest rates reflect what reporting agents pay on deposits and receive for loans.

Furthermore, subsidies granted to households or non-financial corporations by third parties are not taken into account when determining the interest payment, because the subsidies are not paid or received by the reporting agent.

Favourable rates that reporting agents apply to their employees are covered by report S 1.5 «Information on interest rates in EUR».

Where regulatory arrangements affect interest payments, for example interest rate ceilings or the prohibition of remuneration of overnight deposits, these are reflected in report S 1.5 «Information on interest rates in EUR». Any change in the rules determining regulatory arrangements, for example the level of administered interest rates or interest rate ceilings, is shown in report S 1.5 «Information on interest rates in EUR» as a change in the interest rate. Penalties on overdrafts applied as component of other charges, for example in the form of special fees, are not covered by the ~~AAR-TCA~~ as defined under point 3.1.2, because this type of rate only covers the interest rate on loans.

### **3.1.33.1.4 Annual percentage rate of charge (TAEGAPRC)**

#### **3.1.3.13.1.4.1 Basic principle**

In addition to ~~AARsTCAs~~, the reporting agents provide the ~~APRC-TAEG~~ for new business in respect of

consumer credit and loans to households for house purchases, i.e.:

- one ~~TAEGAPRC~~ for new consumer credit
- one ~~APRC-TAEG~~ for new loans to households for house purchases

The ~~APRC-TAEG~~ covers the «total costs of the credit to the consumer», as defined in Article 3(g) of Directive 2008/48/EC. These total costs comprise an interest rate component and a

component of other (related) charges, such as the cost of inquiries, administration, preparation of the documents, guarantees, credit insurance, etc..

The composition of the component of other charges may vary across countries, because the definitions in Directive 2008/48/EC are applied differently, and because national financial systems and the procedure for securing credits differ.

The basic equation, which establishes the annual percentage rate of charge (APRTAEG), equates, on an annual basis, the total present value of drawdown on the one hand and the total present value of repayments and payments of charges on the other hand:

$$\sum_{K=1}^m C_K (1 + X)^{-t_K} = \sum_{l=1}^{m'} D_l (1 + X)^{-S_l}$$

where:

- X is the TAEGAPR
- m is the number of the last drawdown
- k is the number of a drawdown, thus  $1 \leq k \leq m$
- $C_k$  is the amount of drawdown k
- $t_k$  is the interval, expressed in years and fractions of a year, between the date of the first drawdown and the date of each subsequent drawdown, thus  $t_1 = 0$
- $m'$  is the number of the last repayment or payment of charges
- l is the number of a repayment or payment of charges
- $D_l$  is the amount of a repayment or payment of charges
- $S_l$  is the interval, expressed in years and fractions of a year, between the date of the first drawdown and the date of each repayment or payment of charges

The following remarks apply:

- the amounts paid by both parties at different times shall not necessarily be equal and shall not necessarily be paid at equal intervals
- the starting date shall be that of the first drawdown
- intervals between dates used in the calculations shall be expressed in years or in fractions of a year. A year is presumed to have 365 days (or 366 days for leap years), 52 weeks or 12 equal months. An equal month is presumed to have 30,41666 days (i.e. 365/12) regardless of whether or not it is a leap year
- the result of the calculation shall be expressed with an accuracy of at least two decimal places. If the figure at the following decimal place is greater than or equal to 5, the figure at that particular decimal place shall be increased by one.

### Examples

The examples hereunder are calculated on the basis of 365 days per year.

#### Example 1:

The operation presents the following characteristics:

- date of the loan: 1 January 1994
- amount granted = 1 000 euro
- the loan is repaid by means of one single payment of 1 200 euro on the 1 July 1995, i.e. one and a half year or 546 days after it has been granted

The annual percentage rate of charge is compiled as follows:

$$1000 = \frac{1200}{(1+i)^{\frac{546}{365}}}$$

where:

$$(1+i)^{546/365} = 1,2$$

$$(1+i) = (1,2)^{365/546}$$

$$1+i = 1,296204$$

$$i = 0,296204$$

This rate will be rounded to 12,96%.

Example 2:

The operation presents the following characteristics:

- date of the loan: 1 January 1994
- amount granted = 1 000 euro
- the lender retains 50 euro considered as being a fee for the administrative so that the loan actually amounts to 950 euro
- the repayment of 1 200 euro is made on 1 July 1995

The annual percentage rate of charge is compiled as follows:

$$950 = \frac{1200}{(1+i)^{\frac{546}{365}}}$$

where:

$$(1+i)^{\frac{546}{365}} = 1,263157$$

$$(1+i) = (1,263157)^{\frac{365}{546}}$$

$$1+i = 1,169026$$

$$i = 0,169026$$

This rate will be rounded to 16,90%.

Example 3:

The operation presents the following characteristics:

- date of the loan: 1 January 1994
- amount granted = 1 000 euro
- the repayment is made by means of two payments of 600 euro each, of which one is done after one year and the second after two years

The annual percentage rate of charge is compiled as follows:

$$1000 = \frac{600}{(1+i)} + \frac{600}{(1+i)^{\frac{730}{365}}} = \frac{600}{(1+i)} + \frac{600}{(1+i)^2}$$

Solving the equation leads to  $i = 0,1306623$

This rate will be rounded to 13,07%.

#### Example 4:

The operation presents the following characteristics:

- date of the loan: 1 January 1994
- amount granted = 1 000 euro
- the repayment is made as follows:
  - after 3 months: 272 euro
  - after 6 months: 272 euro
  - after 12 months: 544 euro
 which totalises to 1 088 euro

The annual percentage rate of charge is compiled as follows:

$$1000 = \frac{272}{(1+i)^{\frac{90}{365}}} + \frac{272}{(1+i)^{\frac{181}{365}}} + \frac{544}{(1+i)^{\frac{365}{365}}}$$

Solving the equation leads to  $i = 0,13226$ .

This rate will be rounded to 13,07%.

### **3.2 Interest rates on outstanding amounts and new businesses**

Credits institutions have to provide statistics on interest rates on outstanding amounts and on new businesses.

### 3.2.1 Interest rates on outstanding amounts

Outstanding amounts are defined as the stock of all deposits placed by households and nonfinancial corporations with the reporting agent and the stock of all loans granted by the reporting agent to households and non-financial corporations.

An interest rate on outstanding amounts reflects the weighted average interest rate applied to the stock of credits and deposits in the relevant instrument category as at the time reference point as defined under point 3.3.1. The weighted average interest rate is the sum of the **AAR-TCA** multiplied by the corresponding outstanding amounts and divided by the total outstanding amounts. It covers all outstanding contracts that have been agreed in all the periods prior to the reference date.

Bad loans are not included in the weighted average interest rates. The total amount of a loan partially or totally classified as a bad loan is excluded from interest rates statistics. Loans for debt restructuring at rates below market conditions, i.e. debt restructuring in relation to financially distressed debtors, are also excluded from interest rates statistics.

### 3.2.2 New business on overnight deposits, deposits redeemable at notice, credit card debt and revolving loans and overdrafts

In the case of overnight deposits, deposits redeemable at notice, (extended and convenience) credit card debt (also referred to as credit card credit) and revolving loans and overdrafts, the concept of new business is extended to the whole stock. Hence, the debit or credit balance, i.e. the amount outstanding at the time reference point as defined under point 3.3.2, is used as an indicator for new business on overnight deposits, deposits redeemable at notice, credit card debt and revolving loans and overdrafts.

The interest rates for overnight deposits, deposits redeemable at notice, credit card debt and revolving loans and overdrafts reflect the weighted average interest rate applied to the stock on these accounts at the time reference point as defined under point 3.3.2. They cover the

current balance sheet positions of all outstanding contracts that have been agreed in all the periods prior to the reference date.

In order to calculate interest rates on accounts that can either be a deposit or a loan, depending on their balance, reporting agents distinguish between the periods with a credit balance and the periods with a debit balance. The reporting agents report weighted average interest rates referring to the credit balances as overnight deposits and weighted average interest rates referring to the debit balances as overdrafts. They do not report weighted average interest rates combining (low) overnight deposit rates and (high) overdraft rates.

### **3.2.3 New business in instrument categories other than overnight deposits, deposits redeemable at notice, credit card debt and revolving loans and overdrafts**

New business is defined as any new agreement between the household or non-financial corporation and the reporting agent. New agreements comprise:

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

Prolongations of existing deposit and loan contracts that are carried out automatically, i.e. without any active involvement of the household or non-financial corporation, and that do not involve any renegotiation of the terms and conditions of the contract, including the interest rate, are not considered as new business.

The new business rate reflects the weighted average interest rate applied to the deposits and loans in the relevant instrument category in respect of new agreements concluded between households or non-financial corporations and the reporting agent during the time reference period as defined under point 3.3.3.

The new business rate reflects the weighted average interest rate applied to loans collateralised according to the present instructions (see point 2.2.1) in the relevant instrument category. This concerns the new agreements concluded between households or

non-financial corporations and the reporting agent during the time reference period as defined under point 3.3.3.

Changes in floating interest rates in the sense of automatic adjustments of the interest rate performed by the reporting agent are not new agreements and are therefore not considered as new business. For existing contracts, these changes in floating rates are therefore not captured in new business rates but only in the average rates on outstanding amounts.

A change from fixed to floating interest rates or vice versa (at time  $t_1$ ) during the course of the contract, which has been agreed at the start of the contract (time  $t_0$ ), is not a new agreement but part of the terms and conditions of the loan laid down at time  $t_0$ . It is therefore not considered as new business.

A household or non-financial corporation is normally expected to take out a loan other than a revolving loan or overdraft in full at the start of the contract. It may, however, take out a loan in tranches at times  $t_1$ ,  $t_2$ ,  $t_3$ , etc. instead of taking out the full amount at the start of the contract (time  $t_0$ ). The fact that a loan is taken out in tranches is irrelevant for interest rate statistics. The agreement between the household or non-financial corporation and the reporting agent at time  $t_0$ , which includes the interest rate and the full amount of the loan, is covered by credit institutions' interest rate statistics on new business.

### 3.3 Time reference period

#### 3.3.1 Time reference period on outstanding amounts

Interest rates on outstanding amounts as implicit rates referring to the average of the month are calculated as quotients, with the accrued interest payable on deposits and receivable on loans during the reference month as the numerator, and the average stock during the month as the denominator. At the end of the reference month, the reporting agent reports the accrued interest payable or receivable during the month for each instrument category and the average stock of deposits and loans during the same month. In contrast to end-month observations, the interest rates on outstanding amounts compiled as monthly averages also

include contracts that were outstanding at some time during the month but are no longer outstanding at the end of the month.

Interest rates on outstanding amounts as implicit rates referring to the average of the month are calculated as quotients, with the accrued interest payable on deposits and receivable on loans during the reference month as the numerator, and the average stock during the month as the denominator. At the end of the reference month, the reporting agent reports the accrued interest payable or receivable during the month for each instrument category and the average stock of deposits and loans during the same month. In contrast to end-month observations, the credit institutions' interest rates on outstanding amounts compiled as monthly averages also include contracts that were outstanding at some time during the month but are no longer outstanding at the end of the month. The average stock of deposits and loans during the reference month is ideally compiled as the average of daily stocks over the month. As a minimum standard, the average monthly stock is derived from daily balances for volatile instrument categories, i.e. at least overnight deposits, deposits redeemable at notice, extended credit card debt and revolving loans and overdrafts. For all other instrument categories, the average monthly stock is derived from weekly or more frequent balances. For a transitional period of not more than two years, for loans with agreed maturity over five years, the end-month observations are accepted.

### **3.3.2 Time reference point for new business on overnight deposits, deposits redeemable at notice, extended credit card debt and revolving loans and overdrafts**

Interest rates on overnight deposits, deposits redeemable at notice, extended credit card debt and revolving loans and overdrafts are compiled as a snapshot of end-period observations or as implicit rates referring to period averages. The period covered is one month.

Analogous to the compilation of the interest rates on outstanding amounts contained, the interest rates on overnight deposits, deposits redeemable at notice, extended credit card debt and revolving loans and overdrafts are compiled in either of the following manners:

- a snapshot of end-month observations is calculated, i.e. weighted averages of the interest rates applied to the stock of these deposits and loans at a certain point in time on the last day of the month. At that time, the reporting agent collects the interest rates and the amounts involved for all overnight deposits, deposits redeemable at notice, extended credit card debt and revolving loans and overdrafts vis-à-vis households and non-financial corporations, and compile a weighted average interest rate for each instrument category. In contrast to monthly averages, interest rates on outstanding amounts compiled as end-month observations only cover those contracts that are still outstanding at the time of data collection
- implicit rates referring to the average of the month are calculated, i.e. quotients, with the accrued interest payable on deposits and receivable on loans as the numerator and the average daily stock as the denominator. At the end of the month, for overnight deposits, deposits redeemable at notice, extended credit card debt and revolving loans and overdrafts the reporting agent reports the accrued interest payable or receivable during the month and the average stock of deposits and loans during the same month. For overnight deposits, deposits redeemable at notice, extended credit card debt and revolving loans and overdrafts the average monthly stock is derived from daily balances. In contrast to end-month observations, the interest rates on outstanding amounts compiled as monthly averages also include contracts that were outstanding at some time during the month, but are no longer outstanding at the end of the month.

Concerning accounts that can either be a deposit or a loan, depending on their balance, only the balance at a certain time on the last day of the month determines whether the account is an overnight deposit or an overdraft in that month, if interest rates are compiled as a snapshot of end-month observations. If interest rates are calculated as implicit rates referring to the average of the month, an assessment is made each day as to whether the account is a deposit or a loan. An average of the daily credit balances and the daily debit balances is then calculated to derive the average monthly stock for the denominator of the implicit rates. Furthermore, the flow in the numerator distinguishes between accrued interest payable on deposits and receivable on loans. Reporting agents do not report weighted average interest rates combining (low) overnight deposit rates and (high) overdraft rates.

**3.3.3 Time reference point for new business other than overnight deposits, deposit redeemable at notice, extended credit card debt and revolving loans and overdrafts**

Interest rates on new business other than overnight deposits, deposits redeemable at notice, extended credit card debt, and revolving loans and overdrafts are calculated as period averages. The period covered is (the whole of) one month.

For each instrument category, the reporting agents calculate the new business rate as a weighted average of all interest rates on new business operations in the instrument category during the reference month. These interest rates referring to the average of the month are transmitted to the BCL, together with weighting information on the amount of new business conducted during the reporting month for each instrument category. Reporting agents take into account the new business operations conducted during the entire month.

### 3.4 Specific products

The following lines provide guidance on the treatment of specific products.

#### 3.4.1 Step-up (step-down) deposit or credits

A step-up (step-down) deposit or credit is a deposit or loan with a fixed maturity to which an interest rate is applied that increases (decreases) from year to year by a pre-fixed number of percentage points. Step-up (step-down) deposits and loans are instruments with fixed interest rates over the whole maturity. The interest rate for the whole maturity of the deposit or loan and the other terms and conditions are agreed in advance at time  $t_0$  when the contract is signed. An example of a step-up deposit is a deposit with an agreed maturity of four years, which receives 5% interest in the first year, 7% in the second, 9% in the third and 13% in the fourth. The ~~AAR-TCA~~ on new business, which is covered at time  $t_0$  in interest rate statistics, is the geometric average of the factors «1 + interest rate». The ~~AAR-TCA~~ on outstanding amounts that is covered from time  $t_0$  to  $t_3$  is the rate applied by the reporting agent at the time of calculation of the interest rate, i.e. using the example of a deposit with an agreed maturity of four years 5% at time  $t_0$ , 7% at time  $t_1$ , 9% at time  $t_2$  and 13% at time  $t_3$ .

#### 3.4.2 Credit lines

Only outstanding amounts, i.e. amounts withdrawn and not yet repaid in the context of a credit line are covered as new business and reflected in the interest rate statistics. Amounts available through a line of credit that have not been withdrawn or have already been repaid are not considered, whether as new business or as outstanding amounts.

#### 3.4.3 Umbrella contracts

An umbrella contract allows the customer to draw loans on several types of loan accounts up to a certain maximum amount applying to all loan accounts together. At the time of the agreement on an umbrella contract, the form the loan will take and/or the date at which the loan will be drawn and/or the interest rate are not specified, but a range of possibilities may be agreed. Such an umbrella contract is not covered by interest rate statistics. However, as

soon as a loan agreed under an umbrella contract is drawn, it is covered under the corresponding item in interest rate statistics, both in new business and outstanding amounts.

#### **3.4.4 Saving deposits with a basic interest rate plus a fidelity and/or growth premium**

Saving deposits with a basic interest rate plus a fidelity and/or growth premium may exist. At the time the deposit is placed, it is not certain whether or not the premium will be paid. The payment depends on the future unknown saving attitude of the household or non-financial corporation. As a convention, such fidelity or growth premiums are not included in the ~~AAR~~ TCA on new business. The ~~AAR~~ TCA on outstanding amounts always covers the rates applied by the reporting agent at the time of calculation of interest rates. Hence, if such a fidelity or growth premium is granted by the reporting agent, this is reflected in the statistics on outstanding amounts.

#### **3.4.5 Credits associated with derivative contracts**

Credits may be offered to households or non-financial corporations with associated derivative contracts, i.e. an interest rate swap/cap/floor etc. As a convention, such associated derivative contracts shall not be included in the ~~AAR~~ TCA on new business. The ~~AAR~~ TCA on outstanding amounts always covers the rates applied by the reporting agent at the time of the calculation of interest rates. Hence, if such a derivative contract is exercised and the reporting agent adjusts the interest rate charged to the household or non-financial corporation, this is reflected in the statistics on outstanding amounts.

#### **3.4.6 Deposits associated with derivative contracts**

Deposits may be offered comprising two components: a deposit with an agreed maturity to which a fixed interest rate is being applied and an embedded derivative with a return that is linked to the performance of a defined stock exchange index or a bilateral exchange rate, subject to a minimum guaranteed return of 0%. The maturity of both components may be the same or may differ. The ~~AAR~~ TCA on new business covers the interest rate for the deposit with agreed maturity, as it reflects the agreement between the depositor and the reporting

agent and it is known when the money is placed. The return on the other component of the deposit, linked to the performance of a stock exchange index or a bilateral exchange rate, is only known ex post when the product matures and therefore cannot be covered by the new business rate. Hence, only the guaranteed minimum return (usually 0%) is covered. The ~~AAR-TCA~~ on outstanding amounts always covers the interest rate applied by the reporting agent at the time of the calculation of interest rates. Until the day of maturity, the rate on the deposit with agreed maturity is captured as well as the guaranteed minimum return on the deposit containing the embedded derivative. Only at maturity do the interest rates on outstanding amounts reflect the ~~AAR-TCA~~ that is paid by the reporting agent

### 3.4.7 Pension savings accounts

Deposits with a maturity of over two years may contain pension savings accounts. The main part of pension savings accounts may be placed in securities and the interest rate on the accounts then depends on the yield of the underlying securities. The remaining part of pension savings accounts may be held in cash and the interest rate determined by the credit or other institution in the same way as for other deposits. At the time when the deposit is placed, the total return to the household from the pension savings account is not known and may also be negative. In addition, at the time the deposit is placed, an interest rate is agreed between the household and the credit or other institution which applies only to the deposit part; this does not apply to the part invested in securities. Hence, only the deposit part that is not invested in securities is covered by interest rate statistics. The ~~AAR-TCA~~ on new business that is reported is the rate agreed between the household and the reporting agent for the deposit part at the time the deposit is placed. The ~~AAR-TCA~~ on outstanding amounts is the rate applied by the reporting agent to the deposit part of the pension savings accounts at the time of calculation of the interest rate.

### 3.4.8 Saving plans for housing loans

Saving plans for housing loans are long-term saving schemes that may provide a low return but, after a certain period of saving, give the household or non-financial corporation the right to a housing loan at a discounted rate. These savings plans are classified under deposits with agreed maturity over two years as long as they are used as a deposit. As soon as they

are transformed into a loan, they are classified as loans to households for house purchases. Reporting agents report as new deposit business the interest rate that is agreed at the time the initial deposit is placed. The corresponding amount of new business is the amount of money that has been placed. The increase of this amount on the deposit over time is only covered by the outstanding amounts. At the time when the deposit is transformed into a loan, this new loan is recorded as new lending business. The interest rate is the discounted rate that is being offered by the reporting agent. The weight is the total amount of the loan that is being granted to the household or non-financial corporation.