MIR User's Manual

as of August 2st 2010

1 General remarks

- Monetary Financial Institutions (MFI) interest rates (MIR) statistics is based on the provisions of the *Regulation (EC) No 63/2002 of the European Central Bank of 20 December 2001 concerning statistics on interest rates applied by MFIs to deposits and loans vis-à-vis households and non-financial corporations (ECB/2001/18)*[1]

- Principles of calculating interest rates on loans and deposits and reporting these to the NBP are defined in greater detail by reporting Agents' Manual available on *http://www.nbp.pl* -> Statystyka i Sprawozdawczość -> Sprawozdawczość -> Sprawozdawczość dla NBP przekazywana przez banki -> Instrukcja EBC - stopy procentowe (available only in Polish).

- The breakdown of published data changed in January 2005 and June 2010.

2 Statistical information collected from reporting agents

MIR statistics comprises interest rates on:

1. outstanding amounts of zloty loans and deposits,
2. zloty denominated new business,
3. euro denominated new business,

MIR reporting framework covers deposit and lending activity of MFIs[2] in relation with resident non-financial sector. Non-financial sector comprises non-financial corporations, households and non-profit institutions serving households, while households sector includes individuals, sole proprietorships, and farmers.

As far as banking products are concerned, reporting framework covers all types of deposits and loans. The latter comprise credits and loans as well as debt purchase, guaranties and warranties, financial leasing and other. The reporting framework does not include securities, interest due, bad loans and loans for debt restructuring.

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[1] Official Journal. L 10 of 12.1.2002, p. 24.
[2] Current reporting requirement regarding interest on receivables and deposits pertains to banks only.

The MIR reporting framework covers all banking products relevant for the abovementioned categories. Hence, no business can be excluded notwithstanding its insignificant value or importance for the reporting agent.

3 Interest rate on outstanding amounts

Data on outstanding amounts refer to all interest paid and received at the end of the reporting period, these concluded prior to the reporting month as well as new businesses. This interest rate is a quotient of interest on average outstanding amounts by average volume of businesses per reporting month, commissions and other charges excluded. The abovementioned quotient is subject to certain adjustments so that, after standardization of the reporting month, the interest rate may be calculated as follows:

$$i = \frac{30,4}{d} * \frac{interest}{outstanding\ amounts} * 12$$

interest - accrued interest

outstanding amounts - infra-month volume of all businesses

i – calculated interest rate

d – calendar days in the reporting month

Statistics of outstanding amounts provides for total real revenue and interest burden, measured *ex post*.

Reporting month standardization principle is not applicable to credit cards owing to specific monthly accrual of interest on these. Thus, the above formula should be adjusted as follows:

$$i = \frac{interest}{outstanding\ amounts} * 12$$

4 Interest rate on new businesses

Information refers to agreements carried out in a given reporting month. Appendices to existing agreements shall be deemed new businesses.

New business is defined as any use of funds from credit facilities or credit cards, as opposed to revolving deposits which are renewed automatically i.e. without further negotiations with the customer and thus do not qualify for new businesses.

Interest on new businesses is an effective interest calculated separately for each agreement and therefore it differs from data on outstanding amounts. The below formula is applied to statistical information on new businesses, also known as *Narrowly Defined Effective Rate* (NDER).

$$\sum_{m=1}^{M} \frac{SP_m}{(1+i)^{t_m}} = \sum_{n=1}^{N} \frac{SP_n}{(1+i)^{t_n}}$$

where:

i - calculated NDER

SP_m – m-th, daily stream of interest or capital paid to the customer

SP_n – n-th, daily stream of interest or capital paid to the bank

M - total payments to the customer

N - total customer's payments to the bank

t_m or t_n - payment period SP_m or SP_n calculated in years from the date of agreement, where *t* is a quotient of days from the date of agreement by 365 days-a-year.

The time value principle (TVM), based on the premise that value of a given amount is now bigger by *(i)* percent in relation to the future, has been a foundation of the above formula. Market stability requires the present value of the loan be equal to the present value of loan repayment. Future amounts of the initial value may be calculated by dividing the above values by *(i)* percent i.e. discounting. Therefore, the formula levels the discounted initial value of payments to the customer with his payments to the bank. The discount rate *(i)* is the *Narrowly Defined Effective Rate* (NDER).

The NDER does not provide the actual interest paid, but its rate agreed with the creditor on the day the loan is drawn or deposit placed. As opposed to the statistics of outstanding amounts, interest on new businesses is determined based on *a priori* information. Theoretically this rate, in line with TVM principle, should be an integral and accurate measurement of interest notwithstanding the particulars of bank products (i.e. regardless of capital installments or interest repayment pattern). Common practice however, provides

certain obstacles in relation to more complex banking products, where it is impossible to determine future interest or payments distribution in time. Given the above, the reporting agent must either provide for plausible estimation of future developments or accept simplifying measures of the NBP. Floating rate deposit, where continuity of prospective rates is estimated, may serve as a simple example. In this case an assumption is made that the interest rate will not change.

Reporting agents may also use another, less complex, formula when calculating the effective interest rate:

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

where:

i - calculated NDER

i$_{nom}$ - nominal interest rate

n - interest capitalization periods per year

The formula may only be used provided that its results are compatible with these of NDER. This condition is usually applicable to standard products (such as deposits capitalized per quarter).

The concept of *the narrowly defined effective rate* was coined as an opposite to widely understood effective interest rate or *the annual percentage rate of charge (APRC)*. The NDER included, the new business statistics provides APRC for the consumer and house purchase loans. The above term originates from the Act on Consumer Loans[3], because it corresponds to annual percentage rate of change defined therein.

As opposed to the NDER, which covers for interest costs of capital, the real interest rate incorporates all charges paid by the borrower. These charges are most of all commissions (brokers included) but also compulsory loan insurance premiums against death or unemployment of the borrower. The APRC provides for integral picture of all-in-cost of consumer loans, which are to a great extent concealed by the bank in other charges. As regards house purchase loans, discrepancies between APRC and NDER should not be distinctive. These loans are usually long-term and therefore single commissions make an insignificant portion of total costs.

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[3] Act on Consumer Loans of 20 July 2001 (Journal of Laws 01.100.1081, 18.09.2001).

Notwithstanding the interest rate measures the new business reporting framework introduces new definition of *period* for fixed interest loans. The concept of *initial period of fixation* means that nominal interest rate in this period shall remain unchanged. If a loan is granted for p.a. 10 years, its interest in the first year will be set on 9% and as from the second year the interest will be function of WIBOR index (e.g. WIBOR + 1.5 percentage points) then, such a loan is included in fixed interest loans with *initial period of fixation* up to 1 year. The ECB adopted the above definition because, from the central bank perspective, information on interest flexibility to changing economic conditions, especially in the context of NCB decisions, prevails over data on agreed maturity of loans.

Should interest on loan be function of WIBOR 1M i.e. adjusted on a monthly basis (usually referred to as floating rate) and initial rate be fixed for month one, then it would be 1 month period of fixation (such a loan would qualify in "variable rate and up to 3 months initial rate fixation").

5   Remaining issues

The underlying concept of new MIR statistics targets central banks, hence the specific definition of fixed rate for new business. It is also a reason for reporting MIR from the bank's perspective, instead of the customer's. Thus, interest on deposits is reported before tax. On the other hand, subsidies to certain loans (e.g. house purchase loans) are included in the MIR reporting framework i.e. interest reported covers both payments made by the customer and by the subsiding party. APRC, reported from the customer's perspective are exception to the rule, mostly because they include loan brokers' charges.

The reporting sample comprises 19 MFIs.