#### **METHODOLOGICAL EXPLANATIONS**

## 1. METHODOLOGICAL EXPLANATIONS FOR EXTERNAL STATISTICS

External statistics are a sublimate of several individual statistical surveys for compiling, processing and dissemination of data on economic transactions with non-residents, such as: Balance of Payments, Foreign Direct Investments, International Investment Position, Official Foreign Reserves, Gross External Debt and Gross External Claims.

The National Bank of the Republic of Macedonia continuously works on the harmonization with the international statistical standards and producing internationally comparable data.

## 1.1 Harmonization with the European and international statistical standards

The harmonization of statistical reports on external statistics is achieved through the implementation of the international manuals and their incorporation in the national statistics.

The international manuals applied for compiling and processing the data are the following:

- Balance of Payments Manual (BPM 5), 1993, IMF;
- International Reserves and Foreign Currency Liquidity: Guidelines for a Template, IMF 2001;
- External Debt Statistics: Guide for Compilers and Users, IMF, 2003;
- OECD Benchmark Definition of Foreign Direct Investment 3rd edition BD3;
- International Investment position: A Guide to Data Sources 2002; Quarterly International Investment position: Data Sources and Compilation Techniques, 2002 IMF;

The following classifications are applied for compiling and processing the data from these surveys:

- National activity classification compatible with NACE Rev.2
- National classification of institutional sector compatible with ESA 95;
- ISO country and currency codes.

**The national legislation** defining the scope of data compiled for the needs of external statistics is in accordance with the Law on the National Bank of the Republic of Macedonia ("Official Gazette of the Republic of Macedonia" no. 158/10 and 23/12) and the Law on Foreign Exchange Operations ("Official Gazette of the Republic of Macedonia" no. 34/01, 49/01, 103/01, 51/03, 81/08, 24/11 and 135/11).

The **reporting units** are legal entities and natural persons which have economic transactions with non-residents, and which depending on the type of transactions are obliged to report on their claims on and liabilities to non-residents, based on debt instruments, capital investments from and to abroad, claims on and /or liabilities to non-

residents based on other financial instruments etc. The reporting on transactions with non-residents can be direct (by the resident reporting units) and indirect (performed by other entities that have at their disposal information on particular types of transactions).

# 1.2 Dissemination and revision policy

## 1.2.2 Dissemination policy

The data on external statistics are disseminated in accordance with the Advance release calendar (available on the NBRM's website-

http://nbrm.mk/?ItemID=C1F5F4BCC020BE44A9C3824FA3046096).

The methodologies on external statistics are also disseminated on the website of NBRM.

## 1.2.3 Revision Policy

The data are revised on a regular annual basis, in a period of T+270 days after the end of the reporting year.

Additionally, revisions of disseminated data can be done in the following cases:

- provision of new, updated information and data from the reporting units; or
- changes in data sources or changes in the methodology for the compilation of a particular statistical survey.

In accordance with international recommendations, the revised data are denoted with a footnote that provides an appropriate explanation for the implemented changes.

#### **FOREIGN EXCHANGE SECTOR**

### Table no. 18-23 BALANCE OF PAYMENTS

Balance of payments is a statistical statement that systematically summarizes, for a specific time period, the economic transactions of the Republic of Macedonia with the rest of the world.

According to the Law on the National Bank of the Republic of Macedonia and the regulations in the area of foreign exchange operations, the National Bank of the Republic of Macedonia (NBRM) is responsible for compiling and monitoring of the execution of the Balance of payments.

Statistics of the Balance of payments of the Republic of Macedonia is prepared basically in accordance with the methodology of the International Monetary Fund (Balance of Payments Manual, fifth edition - BPM 5). The data are disseminated (issued) on monthly basis, in millions of euros and USA dollars. The transactions which are denominated in other currencies are converted in euros and USA dollars equivalent to the exchange rate on the day of the transaction.

The main sources of data for compiling the balance of payments are the following:

– the single administrative document (SAD) for the foreign trade of the Republic of Macedonia;

- the system for reporting on the banks' international payment operations (ITRS);
- the system for reporting on the external debt (from the credit indebtedness);
- the banks' reports on the stock of assets and liabilities (the banks' report on the deposit money banks book keeping stock);
- the monthly reports on stocks and flows (changes and stocks) on the accounts abroad of the residents which are not authorized banks and the stock and flow on settlement accounts (monthly reports-MR);
- additional NBRM's reports on the realized turnover in exchange offices and on the official foreign exchange reserves stock of the Republic of Macedonia;
  - -data from the annual direct investment survey DI 22.

### **BALANCE OF PAYMENTS: SEPARATE ITEMS**

#### **CURRENT ACCOUNT**

#### Goods

The source of data on the foreign trade of the Republic of Macedonia is the SAD, which is prepared by the Customs Administration of the Republic of Macedonia, and it is processed and published by the State Statistical Office of the Republic of Macedonia and the NBRM.

In accordance with the methodology on recording the foreign trade in the trade statistics, the State Statistical Office is publishing the data for the exports on the f.o.b. basis, while regarding the imports, on the c.i.f. basis.

Adjustment for the coverage and classification are made for good's item in the balance of payments in line with the recommendations given in the BPM5, especially regarding the following:

- coverage: regarding the return of goods and the invoiced value of the performed service for the repair of goods;
- classification: regarding the c.i.f./f.o.b. factor and processing of goods. In the balance of payments, both the exports and the imports are presented on f.o.b. basis, because of which an adjustment of the c.i.f. imports for c.i.f./f.o.b. factor is necessary. In the period from 1993 to 1997, the c.i.f./f.o.b. factor was determined on the basis of the average internationally set rates for calculation of these expenses. Since 1998, the c.i.f./f.o.b. factor is calculated on the basis of established methodology based on the SAD data on transport and insurance of the parities with a destination in the Republic of Macedonia adjusted to the overall imports.

The item import of goods in ports by carriers is based on data from the monthly reports - MR.

#### Services

**Transportation**: The data that refer to the transportation are taken from the ITRS and the monthly reports MR. There is a possibility for making a desegregation by the type of transport (air, sea, railway and road), and on the basis of the category of services (freight, passengers and other). The adjustment is made for the outflow of transportation services (transport of goods) regarding the c.i.f./f.o.b. factor that refers to the costs of transport of goods provided by non-residents.

**Travel**: The data originate from the ITRS and the monthly reports-MR.

**Other services**: The data are taken from the ITRS for the receipts from and payments to non-residents on the basis of type of services: telecommunication, construction, insurance, business, government and other services. The adjustment is made for the insurance outflow regarding the c.i.f./f.o.b. factor that refers to the costs insurance of the transport of goods. An adjustment is made in financial intermediation services, by redistribution of part of Other investment income, based upon the calculation of exports and imports of financial intermediation services indirectly measured (FISIM). Additional source on data for certain types of services are the data from the monthly reports – MR.

#### **Income**

The income as a balance of payments' component originates from: compensation of employees (residents employed with non-residents and vice versa) and investment income. Investment income represents a capital gain from the direct investment, portfolio investment and other investment (dividends, loan and credit interests, etc.).

**Direct investment income**: The data include dividends and distributed branch profits, as well as reinvested earnings and undistributed branch profits. Major data source for the receipts and payments of dividends is the ITRS. For the previous years a basic data source for reinvested earnings is the annual direct investment survey, while for the current year estimates are based on data from the previous years.

**Portfolio investment income**: Data on inflow include interest receipts on foreign debt securities and accrued interest on foreign debt securities as part of the gross official reserves. Data on outflows include dividends paid on equity securities and interest paid on debt securities. The data sources are the ITRS, the NBRM's reports on the official foreign exchange reserves stock and the annual direct investment survey.

**Other investment income**: The data include received and paid interest on the deposits, short-term and long-term loans. The received interest consists of the inflows of interest on foreign currency deposits on the foreign accounts (interest on the foreign exchange reserves and on the foreign exchange assets of the banks). The data sources are the ITRS and the NBRM's reports on the official foreign exchange reserves stock. Interest paid and received on short-term and long-term loans is presented on accrual basis. The source of data is external debt reports, which are obligatorily recorded in the NBRM (credit indebtedness). An adjustment is made in Other investment income, by redistribution of part of this income in the financial intermediation services item, based upon the calculation of exports and imports of financial intermediation services indirectly measured (FISIM).

#### **Current transfers**

**The official transfers** mainly refer to the assistance in financial assets and goods received by foreign governments and international organizations. The source of the data for the transfers in financial assets is the ITRS, while regarding the transfers in goods is the customs administration documents.

**The private transfers** consist of: remittances, cash exchanged and other transfers of which the most are rents. The source of data is the ITRS. Cash exchanged on the exchange market in accordance with the BPM5 should be classified in the capital and financial account of the balance of payments. However, regarding the fact that the largest part of these assets originates from the residents' receipts from non-residents on the basis of provided goods and services (unrecorded transactions) and transfers received in cash foreign currency, these transactions are recorded as a part of the balance of payments' current account (private transfers).

#### CAPITAL AND FINANCIAL ACCOUNT

#### **CAPITAL ACCOUNT**

This account encompasses the capital transfers for which main source of data is the ITRS.

## **FINANCIAL ACCOUNT**

**Direct investment**: The direct investment include equity, reinvested earnings and other capital. Trade credits, long-term and short-term loans between affiliates are recorded under other capital. Basic data source for the previous years is the annual direct investment survey DI 22. The source of data for the investment in financial assets is the ITRS, while regarding the investment in goods is the customs administration documents. For the current year data on reinvested earnings and other capital are estimates based on data from the previous years. Loans within other capital are based on the system for reporting on the external debt and claims.

**Portfolio investment**: The source of data for the portfolio investment is the ITRS. Additional data source for the previous years is the annual direct investment survey DI 22.

#### Other investment:

**Trade credits**: The trade credits (extended to and received from foreign countries) represent a differential between the exports/imports of goods and the corresponding settlements. The estimated data for the trade credits are derived from the foreign trade data in the administration customs documents and corresponding settlements from the ITRS. If the value of the exported goods is higher than the value of receipts on exports, the difference is recorded as an extended trade credits (with a negative sign). If the value of imported goods is higher than the payments on the imports, the difference is recorded as a received trade credits (with a positive sign). Additional source of data are the data from the monthly reports – MR.

**Loans:** Within the "loans" category, disbursements and amortization on short-term and long-term loans are recorded. Principal and interest arrears are also recorded as a counter-entry in the category other investment – other. The data are based on the reports on medium-term and long-term public and private external debt prepared by the NBRM, which are obligatory recorded in the NBRM.

**Currency and deposits**: The data primarily refer to the changes in the foreign exchange assets and foreign exchange liabilities of the banks. The sources of data are the monthly bank's reports on the deposit money banks' book-keeping stock and the ITRS. The changes of foreign exchange assets and foreign exchange liabilities of the banks are showing with partly excluding of valuation changes. The changes of foreign exchange assets of individuals include net cash deposited on foreign exchange accounts with the banks, reduced for the imports of goods by the individuals. The source of data for net cash deposited on foreign exchange accounts with the banks is the ITRS and for imports of goods is the SAD. Additional source of data on currency and deposits for other sectors are the data from the monthly reports – MR.

**Gross official reserve assets:** Transactions are calculated as the changes in the stock of the paricular components of the official foreign exchange reserves, excluding price changes and exchange rate differentials. The source of data are the reports of the NBRM.

## Table no. 24 and 25 Foreign trade

The source of the data regarding the foreign trade is the State Statistical Office of the Republic of Macedonia. The data on the international trade of goods of the Republic of Macedonia is prepared in accordance with the main statistical standards, definitions and recommendations of the UN regarding the concepts and definitions of the foreign trade statistics. The data relating to the exports are published on f.o.b., while those relating to the imports, on c.i.f. basis.

## Table no. 26 and 27 Stock of foreign direct investment

The calculation and dissemination of foreign direct investment (FDI) data worldwide is based on the methodological recommendations of the Balance of Payments Manual-fifth edition, IMF 1993 and The OECD Benchmark Definition of Foreign Direct Investment-third edition, OECD 1996. In accordance with these recommendations, FDI include:

- equity and reinvested earnings;
- claims on direct investors/affiliates abroad;
- liabilities to direct investors/affiliates abroad.

Methodologically, the reinvested earnings include:

- part of the profit distributed in equity;
- part of the profit distributed in reserves;
- part of the profit distributed for loss coverage from the previous period;
- undistributed earnings;
- uncovered losses;
- losses from previous periods, transformed into claims on the investors;
- earnings from previous periods, transformed into liabilities to the investors.

According to the recommendations of the Balance of Payments Manual-fifth edition, the criterion for classifying a transaction as a direct investment is a minimum 10% of equity participation on the right to vote. Accordingly, the distinction between a portfolio and direct investor is based on the percentage of owned shares in the company.

The methodology applied to calculate foreign direct and portfolio investment in the Republic of Macedonia corresponds fully with the methodologies applied by the member countries of the IMF and OECD.

The FDI data in the Republic of Macedonia are disseminated by the country of the investor and the type of activity of the direct investment company.

#### Table no. 28 and 29 International investment position

IIP is a statistical report which presents the stock and structure of financial claims (assets) of residents from non-residents and the financial liabilities of residents to non-residents, arising from their operations. In other words, the IIP is a balance sheet of the international financial assets and liabilities of a country at a certain date.

This statement allows the evaluation of the financial state of the country, as well as the economic integration of the domestic economy at the international level.

The international financial assets of the country comprise of the claims from direct and portfolio investments, investments in financial derivatives, other investments (in the form of trade credits, loans, currency and deposits and other accounts receivable), as well as the official reserve assets.

The international financial liabilities of the country comprise of the liabilities based on direct and portfolio investments, investments in financial derivatives, liabilities on the basis of other investments (in the form of trade credits, loans, currency and deposits and other accounts payable).

The difference between the total international financial assets and liabilities presents the net-international investment position of a country.

## IIP components and methodology for compiling the IIP of the Republic of Macedonia

IIP contains standard components, classified in three levels:

The first level of classification is Assets and Liabilities.

<u>The second level</u> of classification is by functional categories, fully consistent with the financial account of the balance of payments. In accordance with this classification the assets and liabilities are divided into: Direct Investments, Portfolio Investments, Financial Derivatives, Other Investments and Reserve Assets.

- Direct investments are the form of international capital flows reflecting the purpose of achieving long - term interest relationship between the direct investor and the direct investment company and/or the right to manage the direct investment company. Thereby the direct investments are defined in accordance with international recommendations and standards in which the criteria is the minimum 10% capital share or the voting right in which the capital is invested. Direct investments include: Equity Capital, Reinvested Earnings and Intercompany Lending between affiliated entities.
- 2. Portfolio investments include investments in debt securities and equity participation less than 10% or without voting power in the entity in which the capital is invested.
- 3. *Finacial derivatives* are financial instruments which involve specific financial risks linked to another underlying financial instrument or indicator or commodity and which can be traded independently from the underlying instrument on the financial markets. The value of a financial derivative derives from the price of the underlying financial instrument.
- 4. *Other investments* contain assets and liabilities based on short term and long term loans and trade credits, currency and deposits and other accounts receivable/payable.
- trade credits consist of claims or liabilities arising from the direct extension of credit
  by suppliers for transactions in goods and services, as well as advance payment by
  buyers for goods and services and for work in progress;
- <u>loans</u> include those claims or liabilities created through the direct lending of funds by a creditor (lender) to a debtor (borrower) based on a credit agreement;
- <u>currency and deposits</u> currency (notes and coins) are claims on the central bank that has issued them, from the non-resident holders. Liabilities on the basis of

deposits are liabilities of the financial institutions that take deposits of non-resident depositors, while claims on the basis of deposits arise from the funds deposited with non-resident financial institutions;

- <u>other</u> other accounts receivable/payable, arising from debt instruments not included under previous categories.
- 5. Official reserve assets are those external assets that are readily available to and controlled by the monetary authorities, for direct financing of balance of payment's imbalances and indirectly regulating the magnitudes of such imbalances through intervention in exchange markets to affect the exchange rate, and/or for other purposes.

<u>The third level</u> of classification is the disaggregation of financial instruments by institutional sectors (general government, monetary authorities, banks and other sectors).

- general government (comprises the government units that exist at each level—central and local government within the national economy and all social security funds operated at each level of government)
- monetary authorities (the central bank or another institution carrying out the operations of a monetary authority);
- banks (financial intermediaries carrying out activities of taking deposits and extending credits); and
- other sectors (nonbank financial intermediaries, nonfinancial institutions, households and nonprofit institutions serving households)

Furthermore, components of other investments (loans and trade credits) are classified by maturity: short - term (maturities of one year or less) and long - term (maturities of more than one year).

Valuation of instruments within functional categories

In terms of the valuation of instruments within particular functional categories, direct investments and portfolio investments in equity are valuated at book value, portfolio investments in debt securities are calculated at market value, while nominal value is used for all other instruments.

# - Data sources and methodology for compiling International Investment Position

IIP is a complex statistical report the compilation of which is based on direct or indirect reporting systems for data collection within the NBRM.

Data sources by functional categories

#### Direct investment

For the subcategory "Equity capital and reinvested earnings"- for the purposes of the annual IIP, reports on stocks and flows between affiliated entities (DI - 22 and DI - 11) are used as a data source. For the purposes of the Quarterly IIP, the stock is calculated by adding up the BOP flows for the current quarter to the stock of equity capital and reinvested earnings at the end of the previous quarter.

- For the subcategory "Other capital"- for loans between affiliated entities, data are used from the reporting system on external debt (ED) and the reporting system on external claims (EC), while for intercompany lending in the form of trade credits data are used from the quarterly reports on the claims and liabilities on the basis of international commercial operations of residents (KIPO Form). The survey on debt/claims takeovers among residents and nonresidents (POZ) is used as an additional data source.

#### Portfolio investments

- For the subcategory "Equity securities
- on the assets side:
- for the annual and quarterly IIP for the other sectors, quarterly report on traded securities on foreign markets, is provided by the residents authorized for participation in foreign capital markets, while for the banking sector, reports of the banks on assets and liabilities balance (KNJ-BIFO) - the monthly banks reports on their book keeping stocks are used.
  - on the liabilities side:
  - for the annual IIP for the banking sector and other sectors, reports on stocks and flows between affiliated entities (DI 22) are used as a data source
  - for the quarterly IIP, for the banking sector and the other sectors, stocks are calculated by adding up the BOP flows for the current quarter to the stock of equity securities at the end of the previous quarter.
- For the subcategory "Debt securities" for the annual and quarterly IIP the same data sources are used.
- on the assets side, for other sectors, a quarterly report on traded securities on foreign markets is used, provided by the residents authorized for participation in foreign capital markets, while for the banking sector, reports of the banks on assets and liabilities balance (KNJ-BIFO) - the monthly banks reports on their book - keeping stock are used.
- on the liabilities side, data on debt securities issued on the domestic market and purchased by non-residents are taken from Central Securities Depositary, while data on the prevailing market prices are used from the Macedonian stock exchange. For debt securities issued abroad and bought by non-residents, data from the reporting system on external debt (ED), as well as quarterly report on traded securities on foreign market, provided by the residents authorized for participation in foreign capital markets, are used.

#### Other investments

#### Trade credits

- for the subcategory long-term trade credits for annual and quarterly IIP the data from the reporting system on external debt (ED) and the reporting system on external claims (EC) are used
- for the subcategory short-term trade credits for annual and quarterly IIP data from the quarterly reports on the claims and liabilities on the basis of international commercial operations of residents (KIPO Form) are used.

#### Loans

- for the category loans, for the annual and quarterly IIP, data from the reporting system on external debt (ED) and the reporting system on external claims (EC), as well as data from NBRM's reports on the official foreign reserves of the Republic of Macedonia are used

## Currency and deposits

- for the category currency and deposits, for the annual and quarterly IIP, the data from reports of the banks on assets and liabilities balance (KNJ-BIFO)- the monthly bank's reports on the banks' book - keeping stock are used, whereas for other sectors data from the monthly reports of resident accounts held abroad (MR) are used;

## Other accounts receivable/payable

-for the annual and quarterly IIP, data from the direct reporting system on external debt (ED) and reporting system on external claims (EC), as well as data from the survey on debt/claims takeovers among residents and nonresidents (POZ) are used;

#### Reserve assets

-for the annual and quarterly IIP, data from reports of the NBRM on the official foreign reserves of the Republic of Macedonia are used.

# Table no. 30-32 Gross external debt, Gross external claims and Net external debt

## - General methodological notes

The National Bank of the Republic of Macedonia (National Bank) is the institution responsible for recording and monitoring of the external debt of the Republic of Macedonia in accordance with the legislation i.e. the Law on the National Bank of the Republic of Macedonia and the Foreign Exchange Law.

The external debt statistics is prepared in accordance with the External Debt Statistics Guide<sup>1</sup> (Guide).

#### Gross external debt

Gross external debt, at any given time, is the outstanding amount of those actual current, and not contingent, liabilities that require payment(s) of principal and /or interest by the debtor at some point(s) in the future and that are owed to nonresidents by residents of an economy. According to this definition, gross external debt at a certain date is the stock of all future liabilities of residents to nonresidents, future installments of principal, arrears in principal and interest, accrued interest costs, as well as late (default) interest, regardless of the type of instrument and maturity.

<sup>&</sup>lt;sup>1</sup> External Debt Statistics: Guide for compilers and Users, IMF, 2003

#### Gross external claims

Gross external claims are the stock of all current, not contingent claims based on debt instruments, of residents from nonresidents. Basically, the definition of gross external claims is identical with the definition of gross external debt, having in mind that the claims of one economy are liabilities for other.

#### Net external debt

Net external debt is defined as the difference between the stock of gross external debt and gross external claims. In its structure, net external debt is identical with the gross external debt, where the standard presentations contains classification by institutional sectors, maturity and debt instruments.

According to the Guide, the basic classification of debt is among the four basic institutional sectors of an economy:

- general government (government units that exist at each level—central and local—of government within the national economy and all social security funds operated at each level of government);
- monetary authorities (the central bank or other institution carrying out the operations of a monetary authority);
- banking sector (financial intermediaries carrying out activities of taking deposits and extending credits);
- other sectors (non-bank financial intermediaries, non-financial corporations, households and non-profit institutions serving households).

Furthermore, within each of the sectors, debt is classified by maturity, on short term (with original maturity of one year or less) and long term (maturities of more than one year). On the third level of disaggregation, debt is distributed amongst the standard types of debt instruments, such as:

- trade credits consist of claims or liabilities arising from the direct extension of credit by suppliers for transactions in goods and services, and advance payment by buyers for goods and services and for work in progress (or to be undertaken);
- loans include those claims or liabilities created through the direct lending of funds by a creditor (lender) to a debtor (borrower) based on a credit agreement;
- debt securities creation of debt or a claim through the issuance/purchasing of securities as part of the portfolio investment in the country, being traded on organized markets or over-the-counter;
- currency and deposits currency (notes and coins) are claims on a central bank or a
  government that have issued them, from the nonresident holders. Liabilities on
  deposits are liabilities of the financial institutions that take deposits to nonresident
  depositors, while claims on deposits arise from the funds deposited with nonresident
  financial institutions; and
- other other claims and liabilities, not included under previous debt instruments. An important category within this item are arrears, that have a treatment of short-term claims/liabilities, as they are considered to be immediately due and are a cumulative amount of arrears on all previously mentioned instruments.

Direct investment - intercompany lending claims or liabilities are shown separately. The separation of these claims/liabilities within net external debt is significant in view of the necessary compatibility with the IIP statement, where these claims/liabilities are incorporated within the item Direct investment (Other capital).

From the aspect of valuation, the Guide recommends the nominal value to be used for all debt instruments, except debt securities, where it is recommended to use the market value of debt. This is entirely consistent with the methodological recommendations for the compilation of the IIP of a country.

Stock data, repayment schedules, arrears, new commitments and accrued interest are converted into the unit of account using the mid exchange rate of the National Bank at the cut-off date. Flow data, disbursements and repayments, are converted into the unit of account using the mid exchange rate of the National Bank on the day of the transaction.

The stock of debt is a result of disbursements, decreased for the amortization (repayments of principal), increased for the amounts of capitalized interest in arrears, accrued interest and default interest. Having in mind the fact that stock data are converted using the end period exchange rate, while the flow data are converted using the transaction date exchange rate, discrepancies between debt stock at end-period and beginning of period differ from the net flows, as they include the exchange rate differentials as well.

# - Data sources and methodology for compiling net external debt of the Republic of Macedonia

#### Data sources for the net external debt of the General Government sector

- -for the category debt securities (bonds and money market instruments) for debt securities issued abroad and bought by nonresidents, data from the reporting system on external debt (ED) and data for debt securities market value at the cut-off date;
- -for the category debt securities (bonds and money market instruments) for debt securities issued domestically and bought by nonresidents, data from the reports on operations with securities from the authorized participants in the Macedonian Stock exchange, as well as the data base of the Central Securities Depositary are used, while for calculation of the market value of the securities, data on the market prices from the Macedonian Stock Exchange are used.
- for the category loans the data are used from the reporting system on external debt (ED) the credit records statistics is conveyed by the NBRM and is based on a loan-by-loan data base containing various elements. Various data can be obtained from this data base on the stock of external debt, disbursement, repayments, arrears, accrued interest etc.; and the reporting system on external claims (EC) -the credit records statistics is conveyed by the NBRM and is based on a loan-by-loan data base containing various elements. Various data can be obtained from this data base on the stock of external claims, disbursement, repayments, arrears, accrued interest etc.;

# Data sources for the net external debt of the Monetary Authority sector

- -for the category debt securities (bonds and money market instruments) data from reports of the NBRM on the official foreign reserves of the Republic of Macedonia;
- for the category currency and deposits data from reports of the NBRM on the official foreign reserves of the Republic of Macedonia;
- for the category loans the data are used from the reporting system on external debt (ED) and data from reports of the NBRM on the official foreign reserves of the Republic of Macedonia

- for the category other the data are used from the reporting system on external debt (ED) and include a debt liability for SDR allocations.

# Data sources for the net external debt of the Banking sector

- for the category loans the data are used from the reporting system on external debt (ED) and the reporting system on external claims (EC);
- for the category currency and deposits data from reports of the banks on assets and liabilities monthly balance sheet of the commercial banks;
- for the category other the data on arrears are used from the reporting system on external debt (ED) and the reporting system on external claims (EC);

### Data sources for the net external debt of the Other sectors

- -for the category debt securities (bonds and money market instruments) for foreign debt securities issued abroad and bought by residents, data on the market value of the purchased debt securities at the cut-off date, is provided by the residents authorized for participation at foreign capital markets;
- for the category loans the data are used from the reporting system on external debt (ED) and the reporting system on external claims (EC);
- for the category currency and deposits data from the monthly reports of resident accounts held abroad (MR);
- -for the category short-term trade credits data are used from the quarterly reports on the claims and liabilities on the basis of international commercial operations of residents (KIPO Form);
- for the category long-term trade credits the data are used from the reporting system on external debt (ED) and the reporting system on external claims (EC);
- for the category other the data on arrears are used from the reporting system on external debt (ED) and the reporting system on external claims (EC), as well as data from the survey on debt/claims takeovers among residents and nonresidents (POZ);

## Data sources for the net external debt Intercompany lending (Direct investment)

- a basic data source for the claims and liabilities based on intercompany lending data are used:
  - for intercompany lending in the form of loans data are used from the reporting system on external debt (ED) and the reporting system on external claims (EC), that contain information on relations between creditors and debtors with regard to ownership;
  - for intercompany lending in the form of trade credits data are used from the quarterly reports on the claims and liabilities on the basis of international commercial operations of residents (KIPO Form).
  - for other claims and liabilities, data from the annual direct investment survey inward (DI 22) and outward (DI 11), which all resident legal entities submit to the NBRM on annual basis, are used. For the item "Arrears" data from the reporting system on external debt (ED) and external claims (EC) are used, while for the item "Other liablities" data from the survey on debt/claims takeovers among residents and nonresidents (POZ) are used.

Data for the period 2004-2005 are disseminated annually, while starting with 2006 data are disseminated quarterly, in Euro and US Dollars. Starting as of January 01, 2010, data include accrued interest.

#### **Table no. 33 Reserve assets**

The data reflect the stock of reserve assets.

Reserve assets being those external assets that are readily available to and controlled by the monetary authorities, consist of: monetary gold, SDRs, reserve position in the Fund and foreign exchange assets.

The components of reserve assets are defined in accordance with the methodology of the International Monetary Fund (Balance of Payments Manual, fifth edition).

The stock of reserve assets is calculated using the mid exchange rate of NBRM on the day for which the data are disseminated.

# Monetary gold

**Gold:** The category monetary gold encompasses gold handled by the NBRM, consisting of gold in the NBRM's treasury, gold granulates, monetary gold deposited in foreign banks and monetary gold in transport.

**Gold deposits**: Gold deposits consist of term deposits in gold with foreign banks for a longer period of time.

## Foreign exchange

**Deposits with foreign banks**: This category comprises of foreign exchange on nostro accounts with foreign banks, assets with foreign banks used as coverage for opened letters of credit and guarantees, placements in subordinated deposits in foreign currencies with non-residents, as well as term foreign exchange deposits abroad.

**Cash in treasury**: Cash in treasury consists of cash foreign tenders of payment within the treasury, foreign exchange cheques received at the counter, cheques sent abroad for settlement, as well as cheques received for settlement by domestic banks.

**Securities**: This category includes the foreign exchange assets placed in debt coupon and discount securities issued or guaranteed by foreign governments, central banks, multilateral development banks and international financial institutions, as well as foreign exchange assets placed in collateralized and agencies' bonds.

# Table no. 34 and 35 Denar exchange rate - average in the period and in the end of the month

The average annual exchange rates are calculated as an arithmetical average of the monthly average rates.

The average quarterly exchange rates are calculated as an arithmetical average of the average monthly exchange rates in the given quarter.

The average monthly rates are calculated as an arithmetical average of the average daily exchange rates.

The exchange rates at the end of the month represents the daily middle exchange rate at the exchange rates list of the NBRM for the last day of the month.

## **Table no. 36 Indices on effective exchange rate of the Denar**

Real Effective Exchange Rate (REER) is an index calculated by the product of the Nominal Effective Exchange Rate Index of the Denar and the Relative Prices Index.

Nominal Effective Exchange Rate Index (NEER) is calculated as weighted geometric mean of the average monthly nominal exchange rates of 12 countries which are major foreign trade partners of the Republic of Macedonia (Austria, Bulgaria, Croatia, Germany, Greece, Italy, Netherlands, Russia, Slovenia, Turkey, USA and Serbia), with base period 2006=100 and overall trade weights in 2006.

The Relative Prices Index is calculated as a ratio of the domestic price index and the weighted average index of the prices in the selected 12 countries, with base period 2006=100 and overall trade weights in 2006. Consumer Price Index (CPI), Producer Price Index (PPI) and Unit labor cost (ULC) are used as deflators.