# NOTES ON METHODOLOGY

or

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#### INTRODUCTION

The collection of the statistics data is regulated by the Article 68: The Law on the Central Bank of Bosnia and Herzegovina, according to which the CBBH GB decides which statistical data are necessary, at which form they are delivered, which institutions are submitting them, and the confidentiality regime when submitting them. The CBBH collects, processes and publishes the monetary sector statistics and the Balance of Payments statistics, including the foreign trade data, implementing the international standards of the international Monetary Fund. The Central Bank of BH regularly delivers the data to be published in the IMF publications (International Financial Statistics, Balance of Payments Statistics, Yearbook, etc.).

## **REAL SECTOR**

Statistic data from the area of the real sector are taken over by the Central Bank of BH from the relevant institutions, BH Agency of Statistics, Federal Institute of Statistics of BH Federation, Republic Institute of Statistics of RS, Statistic Bureau of Brčko District, Institute of Employment of RS and the Custom Administration of entities.

Gross Domestic Product (GDP) is the basic macroeconomic aggregate of the production calculation and can be calculated in three ways: 1) production approach, 2) expenditures approach and the 3) income approach.

The application of the SNA/ESA methodology in statistical institutions of Bosnia and Herzegovina is at the very beginning and the calculation of the gross domestic product is done according to the production approach according to the current prices.

While using this approach the gross domestic product is equal to the sum of gross added values per the branches including them in the calculation, at the level of total economy, services of the financial mediation indirectly measures (FISIM) and the tax on the products and services decreased by the subvention on products and services,

There data on gross domestic product is taken over by the Central Bank of BH from the BH Agency of Statistics, which calculates it at BH level, taking in account gross domestic products of both entities and make the additional calculation for Bosnia and Herzegovina level.

The calculation is preformed according to the data of the business entities registered and allocated according to the Standard classification of branches, which are harmonized with the European classification NACE Rev1. In accord to this classification, the business entities, with the calculation of GDP are grouped in the area of operations as the institutional units, according to the seat and the majority of operations and not according to the units of the homogeneous activities (units being the integral part), which should be the aim in the future work.

There is a monthly taking over and follow up of the data on the industrial production, retail prices, living costs, wages, number of employed and unemployed, the value of the consumers basket and the pensions per the entities for Brčko District, too.

The data on the industrial production are shown in index of the total industrial production and the index of main groups of the industrial production according to the standard classification of the branches. The Central Bank of Bosnia and Herzegovina according to the data of state and entities' statistical agencies is calculating and monthly publishing the retail prices index and the living costs

index for BiH. This index is calculated as the pondered average of certain monthly indexes	, where
ponder represents the share of entities in BH GDP.	

#### FINANCIAL SECTOR

## **Financial and Banking Institutions**

Financial institutions are: the Central Bank of BiH, commercial banks, other banking institutions and other financial institutions.

The Central Bank of BiH, as a monetary authority of BH, defines, adopts, implements and controls the monetary policy of Bosnia and Herzegovina.

Commercial banks are institutions with licenses to perform banking operations in accordance with the Law on Banks and other Financial Institutions.

Commercial banks of BiH include commercial banks in the Federation of BiH, commercial banks in Republika Srpska and affiliates in District Brčko.

Other banking institutions are savings banks.

Other financial institutions are financial institutions not classified as banks and they include insurance companies, savings-credit unions, etc...

## **Monetary statistics**

The source data of the monetary statistics are CBBH balance sheet and the balance sheet of the BH commercial banks. The reposts of the monetary statistics are prepared monthly and they are published at the web site of the Central Bank www.cbbh.ba, in quartile bulletin of the CBBH and the CBBH Annual report. Since June 2001 the data of monetary statistics are published monthly in the International Financial Statistics (IFS) page on Bosnia and Herzegovina.

The data on monetary statistics are collected according to the scheme of IMF for compilation of the monetary statistics (manual for monetary and banking statistics in IFS, IMF 984). In accord to the IMF scheme we prepare the monetary survey at the BH level, which consolidates the data of monetary authorities and BH commercial banks.

Consolidated balance of the monetary authorities by November 1999 comprised the balance sheet of the Central Bank and the data of the Payments Bureau of Sarajevo and Mostar on deposits in the foreign currency. Monetary authorities according to the IMF scheme for the compilation of the monetary statistics in BH from December 1999 are represented in the Central Bank of BH body.

The data of monetary statistics of BH includes the data of the assets (foreign, local and other assets) and the data on liabilities (foreign, local and other liabilities) of the CBBH and the commercial banks.

The data on monetary statistics includes the data on claims and liabilities of the following institutional sectors:

- 1. Sector of general government,
- 2. Commercial banks,
- 3. Non banking financial institutions
- 4. Non finical public companies
- 5. Private companies and associations
- 6. Non profit organizations
- 7. Households
- 8. Other sectors

For the analyses sake the sectors are grouped as follows:

Sector of general government comprises the central government and non central government. Central Government represents the state government (bodies at the BH level) and the Government of entities (BH Federation and Republika Srpska). Non central government comprises the government of cantons, government of municipalities and funds (funds for the heath insurance, pension insurance, fund for unemployed and other funds).

Sector of non financial companies comprises nonfinancial public companies, private companies associations and non profit organizations.

Private sector comprises household, non banking financial institutions (insurance companies, savings-credit unions and others.

Interbanks claims and liabilities of the domestic commercial banks (banks maintaining the required reserves with the Central Bank of BH) are shown in the net amount within the other items (net).

Data on claims and liabilities refer to the positions at the end of the period, where the foreign currency positions are expressed in KM counter value according to the exchange rate of the Central bank of BH.

#### **Assets and Liabilities**

According to the IMF scheme, the foreign assets of monetary authorities cover: gold, reserve positions with the IMF, availability of special drawing rights, foreign currency in vaults, foreign currency checks, foreign securities and other short and long-term claims on non-resident banks.

Foreign assets of the CBBH (monetary authorities) covered: deposits in foreign currency with foreign banks, foreign currencies in the CBBH vault, SDR handling and long-term foreign securities.

According to the IMF scheme, the foreign liabilities of monetary authorities cover: use of credits (of IMF), matured commitments towards the Fund (IMF), commitments towards non-resident banks, deposits of non-residents and other long and short-term commitments towards non-residents.

Foreign liabilities of the CBBH (monetary authorities) cover short-term commitments towards non-residents, deposits of non residents, other short terms commitments towards non residents and commitments towards the IMF (accounts 1 and 2).

Since September 2000, the IMF accounts have been transferred from the National Bank of BiH books to the balance sheet of the Central Bank of BiH.

The foreign assets of commercial banks cover: foreign currency in vaults, foreign currency checks, claims on non-resident banks, claims on non-resident non-banking institutions, foreign securities and other short and long-term claims on non-resident banks.

The foreign liabilities of commercial banks cover: short and long-term commitments towards non-resident banks and non-resident non-banking institutions and other short and long-term commitments towards non-residents.

Net foreign assets represent the difference between the sum of foreign assets of monetary authorities and commercial banks and sum of their foreign liabilities.

The domestic credits represent claims extended through commercial banks to all domestic institutional sectors and as such they cover: credits to central government (net), credits to non central governments (cantonal and municipal governments, social insurance funds) credits to enterprises and credits to private sector.

Other liabilities consist of stocks and money market instruments (commercial bills, treasury bills and other short-term securities), restricted deposits (bails and other restricted deposits), funds counterparts, government credit funds and other items (net).

Other items (net) are difference between unallocated (unspecified) liabilities and unallocated (unspecified) assets.

Unallocated items in commercial banks assets consist of the cash in vaults of banks, and unallocated liabilities consist of monetary authorities credits with different purposes, capital accounts and other items (net) with effected netting of interbank accounts (this position comprises both the claims and liabilities arising form the old foreign savings (savings with NBY in the net amount).

## **Monetary Aggregates**

Reserve money (primary money or monetary base) consists of cash money outside banks, money in cash offices of banks, bank deposits, deposits of other banking institutions and deposits of other domestic sectors with monetary authorities.

Monetary aggregate M2 (money supply) consists of monetary aggregates, narrow money M1 and quasi money QM.

Monetary Aggregate (M1) covers cash outside banks, demand deposits of cantons, municipalities and funds, deposits of enterprises and private sector consisting of non-banking financial institutions, non-financial private enterprises, non-profit organizations, households and other.

Monetary aggregate QM covers savings and time deposits in domestic currency, demand deposits in foreign currency and time and savings deposits in foreign currency consisting of deposits of cantons, municipalities and funds, deposits of enterprises and private sector (non-banking financial institutions, non-financial private enterprises, non-profit organizations, households and others).

## **Required Reserves**

The Central Bank of BiH required reserves are calculated as the average daily reserves in a ten-day period. The banks keep the minimum required deposits in KM with the Central Bank through the central office or a main unit.

Since June 2003 the deposit base used for the calculation of the required reserves consists of: deposits and borrowed funds from non residents, demand deposits of residents, time and savings deposits of residents, limited deposits and government funds for lending and other liabilities in KM and foreign currency. The rate of the required reserves applied by the Central Bank form 1 June 2003 is 5%.

The preceding decade is used as a base for the calculation of the required reserve i.e. the average balances of the deposit accounts in KM and the foreign currency over the period which precedes the reserve maintenance period.

The total amount for the required reserves maintenance represents the balance of the accounts of the banks reserves with the CBBH of the cash in vault.

The Central Bank of BH is calculating the fee to a bank at the total amount of the funds of this bank at the reserve account with the CBBH in the calculation period at the rate which is defined according to the average of the interest rates which are, in the same time, performed by the CBBH at «overnight» deposits.

# **Payment System**

Payment system for medium risk transactions is performed through the CBBH by means of RTGS and gyro clearing systems. Gyro clearing system is used for the performance of transactions amounting up to KM 20.000,00, while RTGS is not limited, but generally includes higher value transactions and urgent payments.

Data on the volume of payment transactions include only the medium level risk transactions, which are carried out through RTGS and gyro clearing system in the CBBH.

The above mentioned data include only the transactions between commercial banks in BiH, whereas the data on the CBBH participation in the payment system are presented separately.

#### **EXTERNAL SECTOR**

## **Foreign trade statistics**

# Export and import of the goods on balance of payments basis, seasonally adjusted data and trend

The Central Bank of Bosnia and Herzegovina produces monthly series of data on exports and imports of goods on a balance of payments basis and seasonally adjusted.

Since 2005, the source of data for foreign trade statistics has been the Agency for Statistics of Bosnia and Herzegovina (ASBH).

In BH foreign trade statistics (the applied methodology description is available on: <a href="http://www.bhas.ba/pdf%20i%20zip/pdf/metvtBOS.pdf">http://www.bhas.ba/pdf%20i%20zip/pdf/metvtBOS.pdf</a>), the broadened definition of the Special Trade System is used, which is in accordance with the Eurostat recommendations (Statistics on the Trading of Goods: User Guide, EC, Eurostat, November 2002).

With purpose of presenting data on exports and imports of goods on the balance of payments basis, the CBBH performs adjustments in respect of coverage, value, timing and classification of transactions.

# **Adjustments to Exports:**

Coverage adjustments, in addition to undeclared exports estimate, are also related to adjustment of value of exports in special trade system to the value of exports in general trade system. General trade system provides a more accurate basis for estimating the change of ownership criterion used in the balance of payments statistics. Therefore, the value of export of goods from customs warehouses, free commercial zones or other areas under customs control and supervision are added to the value of exports.

*Valuation adjustments* apply to the value adjustments for undervalued and undeclared exports. Undeclared and undervalued exports are estimated to have had a downward tendency until 2006. Since the VAT introduction in the beginning of 2006, the value adjustments of exports are not performed any longer.

# **Adjustments to Imports:**

Coverage adjustments, in addition to the imports not recorded by customs, also include adjustment of imports from special to general trade system, i.e. the value of goods coming from abroad into customs warehouses, free commercial zones or other areas under customs control and supervision are added, as well as temporary imports without value change. In addition, the imports value is decreased by the estimated value of goods imported by non-resident institutions and organizations in BH, and other necessary adjustments are also made. The CBBH, in addition to mentioned adjustments also make *valuation adjustments* for undervalued imports.

*Timing adjustment* is made because customs statistics are based on physical movement of goods across country borders whereas balance of payments statistics use the change of ownership concept. Physical movement and change of ownership do not necessarily occur simultaneously, necessitating timing adjustments in foreign trade data.

Classification adjustments are made to deduct freight and insurance included in customs statistics on imports, since the balance of payments statistics concept is "free on board" (f.o.b.). In balance of payments statistics, freight and insurance are classified as exchange of services rather than goods.

## **Seasonal Adjustment:**

Seasonal adjustment of the foreign trade statistics data series removes oscillations in the value of data on imports and exports due to seasonal influences on foreign trade such as weather, construction season, fiscal reasons and holidays. Most pronounced are typically substantial increases in imports due to seasonal impacts in the last few months of each year followed by falls during the first few months of next year. Exports fall notably the first few months in most years. The seasonally adjusted series make it easier for users to discern period-to-period changes excluding the seasonal effects. For removing regular seasonal effects on the original series, the CBBH applies X-12 method, the most commonly applied technique for seasonal adjustments of official statistics. More detailed information on this method is available on following web address: www.census.gov/pub/ts/x12a.

In addition to applying X-12 method for seasonal adjustment, by using the same method time series on imports and exports are used to calculate and publish the movement trend of BH exports and imports values, i.e. the value of trend cycle. The trend-cycle shows the basic line or a general direction reflected in the data; in other words, the long-term trend and movement of business cycle in a series.

The original series on imports and exports are published along with seasonally adjusted series and trend cycles.

# **Exports and Imports by Commodities**

Data on exports and imports in BH by commodities are compiled on a monthly basis and published in the publications and on the web site of the CBBH. Since 2005 source of these data has been the Agency for Statistics of BH. The data on exports and imports of goods are classified according to the Combined Nomenclature based on Harmonized Commodity Description and Coding System (Harmonized System – HS) developed by World Customs Organization (WCO). Harmonized system means Nomenclature comprising the headings and subheadings and their related numerical codes, the Section, Chapter and Subheading Notes and the General Rules for interpretation of the Harmonized System.

The HS Nomenclature comprises 21 sections (marked by Roman numerals I to XXI) and 98 chapters (marked by Arabic numerals 01-98), while the chapter 98 includes exports/imports unclassified in other chapters.

For purpose of reporting on exports and imports by commodities, the CBBH foreign trade statistics uses the classification of commodities on the Nomenclature two digits, meaning that exported/imported commodities are classified into 98 tariff chapters.

# **Exports and Imports by Countries**

The data on exports and imports in BH by countries are compiled and published on a monthly basis in publications and web site of the CBBH.

Since 2005 source of these data has been the Agency for Statistics of BH.

According to the methodology standards of the UN and EU, the country of goods origin is the partner country in cases of imports, and the country of dispatch is considered as additional information. The country of goods origin is the country where the goods were produced, and the country of dispatch is the country from which the goods were directly delivered to the country of import.

According to the same standards, the country of the last known destination is the partner country in cases of exports. The country of destination, i.e. purpose is the country in which goods are consumed or further processed.

In compiling foreign trade statistics by countries, carried out by the ASBH, with the data taken over by the CBBH, according to the above, the country of origin is used as country of import, and in case

of incorrect codes or if the field of country of origin is not filled-in in the customs data base, the country of dispatch is used as the country of import.

The country of destination is used as the country of export, and in case of incorrect codes or if the field of country of destination is not filled-in in the customs database, the country of dispatch is also used as country of export, because it, in case of export, represents the first country where goods went to from BH. The partner country is marked according to the ISO code system (ISO codes) set up by the UN (the codes consist of two alphabetic characters).

## **Balance of payments statistics**

# I General notes

The Central Bank of Bosnia and Herzegovina (CBBH) is responsible for compiling Bosnia and Herzegovina's (BH) balance of payments statistics. The balance of payments statistics are compiled in accordance with the methodology of the International Monetary Fund (Balance of Payments Manual, Fifth Edition *BPM5*).

Data sources for compiling the balance of payments are: Ministry of Foreign Trade and Economic relations of BH, Ministry of Finance and Treasury BH, Ministry of Foreign Affairs, Indirect Taxation Authority of BH, Agency for Statistics of BH and entity offices for statistics, entity pension funds, residential commercial banks and companies, as well as embassies and international organization located in BH. Statistics compiled within the CBBH are also used in the balance of payment such as monetary and financial sector statistics, government finances, treasury and accounting, as well as data given by economic analyses division and department for financial stability.

With purpose of obtaining more accurate and reliable data, the CBBH conducts quarterly and annual statistical surveys in bh. companies with foreign investment, insurance, telecom and post organizations, transport organizations, pension funds, embassies and international organizations in BH. The data is supplemented with information from publications of international organizations and institutions, as well as statistical institutions of other countries from the region. CBBH estimates balance of payments items for all missing data in accordance with the recommendations of the IMF.

During the period 1998–2000, balance of payments statistics were compiled annually. As of 2001, balance of payments statistics are also compiled quarterly, expressed in both, the domestic currency (KM) and US dollars (USD). The deadlines for publishing data on the CBBH website, as well as in the quarterly and annual CBBH bulletins, are included in the time schedule for publishing statistical data of CBBH and are also available on the CBBH web site.

Along with compilation of the balance of payment on a quarterly basis, data for the previous quarters of current year are revised as well. Also, along with compilation of the balance of payments on annual basis quarterly and annual data for previous three years are revised as well.

Revisions of previously published balance of payments items are done for several reasons: source data are revised by the agencies compiling those data (e.g., Agency for Statistics of BH, BH Ministry of Finance and Treasury etc.); some source data are published with a delay in relation to the reporting period (e.g. OECD data on official transfers); and also results of surveys conducted by the CBBH consist new or improved data series (see the part of this document with following subheading: Explanation of the revisions of the Balance of payments data).

# **II. Balance of Payments Items**

#### **Current Account**

# **Exports and Imports of Goods**

The compilation methodology for data on export and import of goods for balance of payments statistics needs is included in the methodology notes for foreign trade statistics (see the part of this document with following subheading: <u>Foreign trade statistics</u>).

### **Exports and Imports of Services**

The main sources of data for transaction values of services with non-residents are statistical and government institutions, commercial banks (direct surveys of commercial banks on balance of payments transactions that banks perform for its clients), direct surveys of bh. companies and the CBBH. Data are supplemented with information from publications of local institutions, and statistical institutes of countries from the region, but for missing and incomplete data estimates are made.

Services are classified into three groups: transportation, travel, and other services.

#### Transportation Services

Transportation services comprise of transport of goods and passengers, other income and costs linked to transportation services, which residents from bh. provide to non-residents, and vice versa. Source data are collected through direct survey, conducted by the CBBH, on transport companies and commercial banks in BH.

During 2008 the CBBH has initiated survey on transportation services of BH residents to non-residents for 2007. This survey consists of bh. companies registered for providing services in international road, railroad and air traffic.

The value of services of transportation of goods is calculated on the basis of the estimated difference between the value of imported goods at c.i.f. (value of customs import and export data that includes transport and insurance costs) and f.o.b. (concept "free on board") values. Out of this amount a part related to the transport services of non-resident carriers is estimated.

Services of the passengers' transport cover the data of Sarajevo airport statistics on air traffic of local and foreign carriers, as well as the CBBH researches on transport of non-residents in bus transport of resident carriers and residents in international traffic of non-resident carriers.

#### Travel services

Travel services cover inflow/outflow of goods and services provided to non-residents in BH and services to residents for their travel abroad, for duration less then one year. An exception are travel services for diplomatic and military staff, as well as pupils, students and medical patients, which are considered to be residents of an economy even if their stay will be for a period longer then one year, having as condition that these will return to their resident economy.

Tourist consumption is divided into business travels and private travels that consist of tourism, education and medical care.

Business travels are estimated according to the CBBH researches on rate of business in total (business and private) travels, which is conducted for neighboring countries.

For *private travels* used are data provided by statistical institutes in BH on the stay of foreign tourists, and statistical data of other countries on BH tourists in these countries. CBBH estimates the data for unregistered tourists, staying expenses of foreign staff in BH and bordering daily shopping.

#### Other Services

Other services consist of communication, construction, insurance and reinsurance, financial, and other business services and government services.

Communication services (telecommunications and mailing services) provided to non-residents, or received from non-residents on a quarterly basis by conducting direct surveys of telecommunications and mailing companies from BH.

Construction services consist of construction work by bh. companies abroad, thus delivered by ASBH, and estimations based on construction work of non-residents in BH based upon data collected from various official sources (web pages, publications, etc.).

Insurance services consist of insurance of goods that are incorporated into the value of imported and exported goods, and other kinds of direct insurance and reinsurance of goods, life and insurance against accidents of the resident at a foreign insurer or a non-resident at a local insurer. Value of provided and obtained services of life insurance and insurance against accidents quarterly are collected through direct surveys of bh. agencies that are involved in insurance and reinsurance.

Financial services consist of current balance of payments transactions, which refer to letters of credit provision, bank acceptance bills, credit lines, financial leasing and foreign exchange transactions. The difference between the buying/selling rate and the middle rate is considered as the value of foreign exchange transaction. Data is directly collected from commercial banks from BH on a monthly basis.

Other business, professional and technical services (house rents from international organizations and embassies and rents from international military missions in BH) are estimated based on data on transactions of international organizations in BH to bh. residents.

Government services that are included in outflows consist of costs of bh. embassies abroad that are quarterly provided by the BH Ministry of Foreign Trade, while inflows are estimated based on data collected from expenses of foreign embassies and international civil and military units in BH (office stationary, electric energy, equipment etc.).

## **Income Transactions**

According to the IMF Balance of Payment Manual, in the balance of payments for BH, income is based on work performed (compensation to employees) and capital investment (investment income).

## Compensations of Employees

Compensations of Employees, *inflows*, are estimated as the amount of wages and salaries paid to bh. residents, employed in embassies, international civil and military organizations and foreign staff treated as residents, since they reside in the country longer than one year, and earnings of seasonal, occasional and temporary bh. workers abroad.

Compensations of Employees, *outflows*, are estimated as the amount of wages and salaries to non-residents, who are temporarily or seasonally employed in BH, but not residing for longer than one year in BH. Compensation of Employees of local and foreign staff by non-resident employers residing in BH are estimated based on survey conducted by the CBBH.

#### Investment Income

Investment income consists of credit and debit of direct, portfolio and other investments.

*Direct investment* – credit – includes reinvested earnings of bh. companies that have foreign direct investments abroad. Debit – includes paid off dividends to direct investors in BH, retained earnings of banks and companies that have foreign direct investments in BH, as well as interests on loans from foreign investors. Necessary information for the credit/debit direct investment income account is obtained from results of direct survey on foreign investments conducted by the CBBH.

Other investments income is presented by sectors.

Based on data collected from the CBBH and the Ministry of Finance and Treasury of BH, investment income is calculated for monetary authorities sector, which includes interest based on CBBH deposits at non-residential banks, and for the general government sector, which includes interest repayments of BH external debt to non-residential banks. Data about investment income of commercial banks, comprised of paid interest on deposits at non-residential banks, are based on ITRS data and CBBH estimates.

In other sectors, investments income includes interest on short-term loans of bh. companies that carry out import/export of goods, and interest based on deposits abroad. As basis for these estimates are used data collected through the trade credit survey conducted by the CBBH.

#### **Current transfers**

Current transfers consist of all transfers that do not involve transfers of ownership of a fixed (capital) asset, transfers of funds linked to, or conditional upon acquisition or disposal of fixed assets; forgiveness, without any counterparts being received in return, of liabilities by creditors. Current transfers are classified according to the sector of the compiling economy into general government and other sectors. General government current transfers include pensions, repatriations, and official aid of one to another government. Other sectors current transfers include workers' remittances from abroad and other transfers.

#### Government Sector

Current transfers of the government sector in the BH Balance of Payments include grants from abroad which are estimated according to the data on official development assistance to BH published by the OECD (DAC) and the data collected from the local institutions, as well as data collected directly from the donors present.

#### Other sectors

Other sectors current transfers include workers' remittances from abroad and other transfers.

Data that the CBBH receives from Western Union systems are used as a source data for credit and debit workers' remittances, as well as information gathered from ITRS and CBBH estimates. The finding of panel poll on households "Living in BH" conducted by BH Agency for Statistics, in the period 2000-2004, represented the basis of the estimation on workers' remittances. For this estimation were also used data on the number of refugees and displaced persons and BH emigrants collected from the Ministry for Human Rights and Refugees.

Other current transfers consist of insurance and reinsurance transfers and data on pensions to/from abroad. Insurance and reinsurance data are collected by the CBBH direct surveys and completed with data already available in the CBBH. Data on pensions from abroad are collected from commercial banks – ITRS system, while data on pensions paid to foreign countries are directly collected from pension funds in BH.

# **Capital Account**

Balance of Capital transfers present a countries capital net change of credit and debit towards abroad in a given period.

Capital transfers consist of those involving transfers of ownership of fixed (capital) assets; transfers of funds linked to, or conditional upon, acquisition or disposal of fixed assets; or cancellation, without any counterparts being received in return, of liabilities by creditor. Capital transfers are classified according to the sector of the compiling economy into general government and other sectors.

# Capital Transfers, General Government Sector

Capital transfers of the general government sector are subdivided into debt forgiveness and other transfers; they are estimated according to the data on official development assistance to BH published by the OECD and the World Bank. On the basis of these data, the part of donations of the countries that are not members of DAC is estimated and that amount is allocated to capital and current transfers to BH.

## Capital Transfers, Other Sectors

Capital transfers from abroad to other sectors, which are further subdivided into migrants' transfers, debt forgiveness and other transfers, include estimated migrants' transfers in kind (cars, equipment, and home appliances) and estimated amount of remittances from abroad in the form of capital goods.

#### **Financial Account**

Financial account includes transactions of ownership over financial assets and liabilities between residents and non-residents. The BH balance of payments financial account represents investment flows and changes of the international reserves. In accordance with the IMF Manual for BoP, investments are classified into: direct, portfolio and other investments.

# **Direct Investments**

For foreign investments (direct, portfolio and other investments) until 2003, administrative data of the Ministry for Foreign Trade and Economic Relations of BH on registered investment in equity were used. Since 2004, the CBBH has regularly conducted quarterly and annual surveys on foreign investments in BH. These surveys cover companies and commercial banks that have, or are assumed to have, investments from abroad, or which, have invested abroad or maybe borrowed funds from abroad.

Detailed methodology explanations on FDI in BH are given in this document under the following subheading: Foreign direct investment statistics.

#### **Portfolio Investments**

The form used to collect data on foreign investments in BH enables also the separate presentation of portfolio investments. However, portfolio investments have not yet been presented in the country's balance of payments, as capital markets are still undeveloped and there are no significant inflows of

portfolio investments from abroad. Thus, foreign investors mainly undertake direct investments (over 10% of the investment in equity).

#### Other Investments

Assets of other investments are collected based on monetary statistics data on foreign assets of commercial banks and other sectors. Estimates of remaining components of foreign assets for other sectors are made for loans to the private sector at commercial banks (ITRS system), flows of trade credits, holdings of foreign currencies outside the banking system, financing of unregistered exports and imports of goods, payment of rents and salaries to BH residents, and foreign cash inflows from the stay of nonresidents in BH.

Liabilities of other investments are presented as flows of trade credits for exported and imported goods, loan flows to the government sector (withdrawal of new government loans and repayment of the principal) and loans to other sectors (short-term and long-term loans to banks and companies and repayment of the principal), flows of other financial liabilities of bh. residents to non-residents (the change of commercial banks' foreign liabilities), and the collected life insurance premiums of non-residents at resident insurance organizations. As sources data are used data provided by the CBBH (monetary statistics, ITRS, surveys on credit loans, foreign direct investments and surveys on the value of insurance services), by the Ministry of Finance and Treasury of BH, as well as estimations made based on data collected from the BIS bank.

#### **Reserve Assets**

Based on the IMF methodology reserve assets of the reporting economy, consist of: monetary gold, Special Drawing Rights, reserve positions at the IMF, foreign currency reserves and other claims. Data on BH reserve assets, flows of international reserves are obtained from the CBBH monetary statistics, and these include foreign currency reserves, Special Drawing Rights and other claims (currency and deposits or securities that have not been included in the upper categories).

#### **Net errors and omissions**

Incomplete coverage as well as overlap of coverage, differences in prices, time recording inconsistence, as well as inconsistence of exchange rates result in omissions and errors in BoP. Since the BOP components are compiled on the basis of double entry system, differences between recorded assets and liabilities items are included in BoP report as net errors and omissions. In practice it is not possible to measure gross errors and omissions. That is because possibility of appearance of errors in recordings of assets and liabilities is the same. (Definition taken from BPM5)

# Methodology for calculation of the effective exchange rates

**Nominal effective rate** in BH is calculated for every multilateral principle. According to this principle nominal effective rate represents the sum indicator of change of local currency nominal value compared to the pondered average of nominal rates' changes of main trade partners (for a certain month or year, taking in consideration the adequate basis period).

**Real effective rate** is calculated according to the nominal effective rate, which is corrected with the difference of the inflation between BH economy and the inflation in countries-main trade partners. Therefore, while calculating the real effective rate, nominal effective rate is adjusted for adequate real relation between changes of the prices with the main trade partners and prices in BH. Index of the real effective rate is used as the indicator of the changes of local economy competitiveness.

Increase of the real effective rate index marks the drop of the KM real value, but also the increase of competitiveness of the local economy in the market of the main trade partners, and vice versa. Real effective rate is expressed by index number, showing the increase – appreciation (index under 100) or decrease, i.e. deprecation of the rate (index above 100) compared to the selected basis year. In according to the available data, the calculation of the nominal (NEER) and the real effective rate (REER) is based on monthly data of series, covering the period since April 2002, conclusive with the months for which the CBBH has the available monthly data.

Selection of main trade partners and calculation of ponder is based at the principle of so called time adjustable ponders, i.e. on the fact that the basic period for the calculation of ponders is changed each three years. Therefore, for the calculation of effective rates for the period 2007-2009 we use ponders based on the trade exchange of BH in the 2004-2006 period. In accord to this principle, effective rates for the period 2010 –2012 will be calculated according to the weights based on trade exchange of BH in the period 2007 –2009. In this way, we take in account the possibilities of changes among main trade partners and we provide that the effective rates are based on the actual situation in terms of trade exchange in BH.

The list of 20 most important trade partners in BH in the 2004-2006 period, and calculated ponders per countries, are given in the following table:

Partner	Share of the partners in total exports	Share of the partners in total imports	Ponder
Croatia	0,200	0,170	0,200
Germany	0,116	0,129	0,141
Serbia and Monte Negro (until February 12, 2007)	0,146	0,100	0,126
Italy	0,145	0,090	0,117
Slovenia	0,106	0,073	0,092
Austria	0,052	0,042	0,050
Hungary	0,028	0,038	0,040
China	0,000	0,031	0,025
USA	0,029	0,017	0,023
Turkey	0,004	0,026	0,023
Switzerland	0,021	0,019	0,022
France	0,017	0,020	0,021
Chez Republic	0,009	0,023	0,021
Russian Federation	0,001	0,025	0,021
Romania	0,010	0,021	0,020
Poland	0,014	0,017	0,018
Holland	0,008	0,011	0,011
Bulgaria	0,004	0,012	0,011
Macedonia	0,009	0,008	0,009
Ukraine	0,001	0,011	0,009
20 partners in total	0,919	0,871	1,000

Ponders are calculated per the following formula:

$$w_i = v^I w^I + v^U w^U$$
 where

I – total exports of partners (i)\*; U – total imports of partners (i); I+U = total trade

$$v^{i} = \frac{I}{I+U}$$
 share in exports;  $v^{u} = \frac{U}{I+U}$  share in imports;

$$w_i^I = \frac{I_i}{I}$$
 ponder of partners' exports (i) i  $w_i^U = \frac{U_i}{II}$  ponder of partners' imports (i)

As seen from the table, the selected list of 20 partners in total exports of Bosnia and Herzegovina took part with 91,9%, and in imports with 87,1%.

The basis period represents the 2003 year, while for the basis values of rates and inflation per countries we took the annual average of monthly rates and inflation rates. Selection of 2003 year for the basis period is based on the analyses of trade exchange monthly osscilations, rates and inflation by countries, while this year, compared to the other years, has the least volatility of the analysed data out of their annual average.

While calculating the index of nominal effective rate we applied the principle of calculation of the geometric average of the pondered nominal KM rates by currencies of main trade partners, while for: Germany, Italy, Austria, France and Holland, and for Slovenia since January 2007 we used Euro rate.

Therefore, the formula for calcaution of the nominal efective KM rate is as follows:

NEERt =  $100 \Pi T_{it}^{wi}$  where i = EUR, CNY, HRK, MKD, ROL, RUB, SRD, CHF, TRL, USD, HUF, CZK, PLN, BGN, UAH.

The symbol  $(T_{it})$  represents the average nominal KM rate compared to the currencies (i) of the countries partners recorded in a month (t), and divided with the rate from the basis period. Symbol  $(w_i)$  represents the adequate ponder for currency (i), while symbol  $(\Pi)$  represents the multiplication operation.

While cacluating the index of real effective rate we used the following formula:

$$REER_{t} = \sum_{t} \frac{w_{i} P_{it}}{P_{t}} NEER_{t}$$

Symbol (Pit) represents the basic index of prices in a month (t) for each country individually, while (Pt) represents the index of the local prices compared with the basis period. In short, REER is calculated as the index of NEER adjusted for the adequate relation between ponders and the basic prices index of partner countries with the basic index of local prices. Deflation is executed by use of the consumer price index (CPI) from the IFS basis of the International Monetary Fund, except for BH and Serbia. For BH for the period 2002-2005 we used the pondered average of the Entities' indices of retail prices, and since 2006 we have used Consumer Prices Index (CPI). For Serbia we use the Consumer Prices Index published in publications of National Bank of Serbia. 1.

<sup>\*</sup>Translator's note: " the formulae are left as in original text, i.e. in the local language with the explanation of letters in English in the follow up text."

<sup>&</sup>lt;sup>1</sup>In overall calculation we used the data on external trade of BiH with Serbia and Monte Negro.

## Foreign direct investment statistics

#### Introduction

The Central Bank of Bosnia and Herzegovina compiles and disseminates quarterly balance of payments statistics, including items on foreign direct investments in BH.

Since the first quarter of 2004, Central Bank of BH has been regularly conducting quarterly and annual surveys of foreign investments through direct collection of the data from resident enterprises and banks with foreign investments.

The law on the CBBH, as well as provisions of the Decision ("The Decision on Collection of Data for the Statistics of Monetary and Finance Sector, Balance of Payments Statistics, Government Finance Statistics and Foreign Debt of BH", GB 240/06, as of November 30, 2006), give the authorization to the CBBH for collection of data required for compilation of Foreign Direct Investment Statistics. The CBBH also guarantees the confidentiality of the individual data of enterprises and their use only as aggregated data for statistical purposes. The Methodology used for Statistics of Foreign Direct Investment in BH follows up the majority of international requirements and it is in accordance with the methodology presented in the IMF Balance of Payments Manual, Fifth Edition, as well as OECD Benchmark Definition of Foreign Direct Investment, Third Edition.

## **Concepts used in the Statistics of Foreign Direct Investment**

Data collected in the survey relate to both *stocks* and *flows* of foreign direct investment in BH. The stock of investment represents the total outstanding balance of investment at a particular date, i.e. the total amount of investment in equity/owner shares (in equipment and other goods and services, in cash, and in other equity/owner shares), reinvested earnings of enterprises with foreign investment, bonds, money market instruments and all forms of borrowings. Flows of investment are the actual transactions of foreign investment during a period, i.e. new investment from abroad in equity/owner shares, bonds, money market instruments and new borrowings of all types. Foreign direct investment flows are recorded and used in the balance of payments statistics, while stocks of foreign assets and liabilities are recorded in the statistics of the international investment position of BH. Foreign direct investment reflects the intention of a resident of another economy (direct foreign investor) to obtain permanent interests in a company, that is the resident of the reporting economy (company with direct foreign investment). Direct investment consists of not only initial investment, but also all follow up investor transactions in a company with the foreign investment.

Direct foreign investor is a non-resident legal entity or individual (or group of the related non-residents) being the owner of 10% or more of the equity/owner shares in the resident company. Non-resident enterprises connected to the direct investor are also considered as non-resident direct investors in a company.

Investment in the form of equity/owner shares, reinvested earnings and other capital (inter-company loans, bonds, money market instrument, trade loans and other loans) represent components of total foreign direct investment.

Data on reinvested earnings are collected on annual basis. The reinvested earnings represent the amount of remaining profits, after taxes on profit and dividends or any other profit related payments made by the company with the direct investment in BH to its foreign direct investor.

Transactions are recorded on basis of real transactions values, while values of stocks are recorded on the basis of market value. In a case that market value is not known book value is used.

Based on data collected through quarterly surveys the data for the previous quarters of observed year are revised, while based on results of annual survey data are revised for two previous years.

#### **Data sources**

Quarterly surveys are conducted on a sample of companies and banks in BH, that are selected based on the amount and importance of foreign investments, selected from the Register of companies and banks with foreign investment in BH, created in the initial survey. The Register is continually updated with information on new registered companies and banks with foreign direct investments obtained from the Ministry of Foreign Trade and Economic Relation of BH and other relevant sources (RS Central Registry of Securities, Registry of Securities in FBH, medias, etc.).

In order to provide the comparative standards for quarterly surveys, more detailed surveys of all companies from the Register are conducted at an annual level. The annual survey conducted in the current year covers data from the previous year.

The companies in which the amounts of foreign investments are relatively small (less than KM 100,000) are not included in these surveys. For these companies estimates of data are made based on other sources and information.

According to IMF Balance of Payments Compilation Guide for quarterly as well as annual reporting questionnaire forms are created.

#### **Dissemination of Statistical Data**

Quarterly and annual data on flows of foreign direct investment, as well as, the annual data on the stocks of foreign direct investment are published in publications and on the web site of the Central Bank of BH.

The quarterly data on flows of foreign direct investment for the previous quarter are published by the end of the current quarter, and the data on stocks and flows of foreign direct investment in BH at the annual level are published 10 months upon the end of the reported year.

The data are classified by components of foreign direct investment (equity/owner shares, reinvested earnings and other capital), by country of foreign direct investor, and by industry of the recipient of foreign direct investment (NACE industry classification).

Classification by country of foreign direct investor is based on debtor/creditor principle. Debtor/creditor principle allocates transactions resulting in changes in the financial claims of the compiling economy to the country of residence of the non-resident debtor, and transactions resulting in changes in the financial liabilities of the compiling economy to the country of residence of non-resident creditor, even if these amounts are paid to or received from different country.

#### **International investment position statistics**

# **General explanations**

## Introduction

International investment position (IIP) statistics of Bosnia and Herzegovina is compiled in line with the methodology recommended by the IMF in BPM5, but due to the lack of source data the IIP for BH is compiled only for sectors of banks, monetary authorities and general government.

Assets and liabilities, basic components of International investment position are both expressed in positive figures. Net International investment position is expressed as net assets (difference between assets and liabilities). Thus negative net IIP means that residents of observed economy have net-passive position with the non-residents, whilst positive net IIP means that residents of observed economy have net-active position with non-residents.

Data on IIP for BH are published annually.

#### **Definition and classification**

The International Investment Position (IIP) is a balance sheet of external financial assets and liabilities of an economy, compiled at the end of a specific period.

Foreign financial assets and liabilities of residents represent the basic components of international investment position, whilst components of assets and liabilities are similar to the financial account components of the balance of payment. However, the IIP that is represented as stock of assets and liabilities at the end of a specific period reflects consequences of financial transactions, changes of values and other changes occurring during the past period.

IIP Assets consist of foreign direct investments abroad, portfolio investments, financial derivatives, other investments and reserve assets.

IIP Liabilities consist of direct investments in a reporting economy, portfolio investments, financial derivatives and other investments. Due to the lack of reliable and complete data on financial positions of non-financial private companies and households, the data for IIP BH is given only for sector of banks, monetary authorities and the general government sector.

# Specification of data sources

Main data sources for the BH IIP statistics are three sets of statistics compiled within the CBBH: foreign investment statistics, monetary and financial statistics and general government external debt statistics of Bosnia and Herzegovina.

Data on assets and liabilities of commercial banks, as well as data on international reserves (reserve assets), are derived from the monetary and financial statistics sector. Data for direct investment in banks derive from foreign direct investment statistics. Data on loans, currency and deposits and other assets and liabilities of the general government sector are derived from government external debt statistics.

With improvements in three main sets of statistics above mentioned as data sources, the IIP statistics for sector of banks, monetary authorities and general government sector will be improved in terms of coverage, valuation, consistency, etc.

## **International Investment Position Components**

#### **Foreign direct investments**

Conceptual framework

Direct investments are classified by direction of investment flow:

- 1. Direct investments abroad
- 2. Direct investments in the reporting economy (BH).

Foreign direct investments (FDI) are investments in banks in BH (FDI in a reporting economy), where the foreign owner or owners hold at least 10% of the equity/owner shares and by that exercise a substantial role in the managing and conduction of business policies of the bank with the FDI.

Total foreign investments are subdivided into investments in the form of equity capital (owner shares), reinvested earnings and other capital.

Compilation practice of the foreign direct investments statistics and detailed methodological notes are available in this document under the following subheading: Foreign direct investment statistics.

#### Portfolio investment

# Conceptual framework

Portfolio investments consist of financial instruments such as equity securities and debt securities, that are usually traded (or tradable) in organized markets, and these are, in accordance with applied methodology, not classified as direct investment or reserve assets. An investment in equity less than 10% by a foreign investor is registered as a portfolio investment.

Debt securities are subdivided into bonds and money–market instruments.

**Bonds** include instruments issued with the original maturity longer than 12 months. These can be issued by a company or by the government.

<u>Money-market instruments</u> are debt securities issued with the original maturity of one year or less. Transactions between the main company and its branches, in terms of money-market instruments, are classified as direct investment. In other cases, these are classified as portfolio investment or as reserve assets.

# Compilation practice in CBBH

Surveys on direct investments in BH provide separate data on portfolio investments. However, for BH only portfolio investments in commercial banks are classified in this IIP category. Assets of monetary authorities configured as debt securities are included into reserve assets.

#### Other investment

# Conceptual framework

Other investment within IIP cover all financial instruments other than those classified as direct investments, portfolio investments, or reserve assets. Other investments are primarily classified by instruments (trade credits, loans, currency and deposits, and other assets and liabilities) and secondarily by sectors same as portfolio investment instruments.

<u>Loans</u> comprise those financial assets created through the direct lending of funds by a creditor (lender) to a debtor (borrower). Loans include means for trade financing (different from trade credits), other loans and early payments (including mortgages), use of IMF credits and loans, etc. Financial leases are also classified as loans, even though, from a legal standpoint, these may not be considered loans. In the case of transactions between the main company and its branches, those transactions are classified as direct investment as borrowings – inter-company loans.

<u>Currencies</u> in Other investments include domestic currency held by non-residents (liabilities) and foreign currencies held by residents (assets) that are in circulation and commonly used to make payments.

<u>Deposits</u> comprise both transferable and other deposits. Transferable deposits consist of deposits that are exchangeable on demand, mainly without restriction or penalty, freely transferable by check or payment order, and otherwise commonly used to make payments. Other deposits include all claims (other than transferable deposits) reflecting evidence of deposit, such as saving deposits and time deposits.

## Compilation practice in CBBH

For the compilation of the International Investment Position for BH data on stocks of foreign loans and deposits of non-residents held at residential commercial banks are taken from the statistics of the monetary and financial sector.

#### **Reserve assets**

# Conceptual framework

Reserve assets include: monetary gold, Special Drawing Rights (SDR), reserve position at the IMF, foreign exchange, and other claims. The foreign exchange position is further subdivided into currency and deposits, securities, and financial derivatives.

# Compilation practice in CBBH

Reserve assets are gross foreign reserves of the Central Bank of Bosnia and Herzegovina, which consist of balance sheet positions of short-term foreign assets of the CBBH (gold, SDR holdings, foreign exchange in the CBBH vault, short-term foreign exchange deposits with non-resident banks and other) and investment in long-term foreign securities.

The net foreign reserves represent a difference between gross foreign reserves and liabilities to non-residents. The Law on Central bank of BH requires total CBBH monetary liabilities not to be greater then its net foreign reserves (monetary gold, Special Drawing Rights, reserve positions at the IMF and foreign currency reserves).

Data on the stock of foreign currency reserves and holding of Special Drawing Rights are obtained from the monetary and financial statistics.

## Revisions of the Balance of payments data

Compilation of the balance of payments statistics, which is done by the CBBH in BH, includes also the regular revision of previously published data in accordance with the most recent available source data. BH balance of payments statistics have been complied since 1998, which is considered to be relatively short data series. Thus it is necessary to conduct detailed revisions of all data and applied methodologies all the way to the first reporting period as well as to publish detailed explanation of such revisions.

The revision of the BH balance of payments statistics includes:

- Revisions resulting from new improved data, obtained by direct surveys
- Revisions resulting from changes in the balance of payment statistics compilations methodology
- Revisions resulting from changes in data sources

Revisions resulting from new improved data, obtained by direct surveys

CBBH performs surveys using the direct survey method on a quarterly and annual base. Data collected directly has upward tendency improving its accuracy and coverage, which has an influence on quality of the balance of payment statistics. These surveys consist of:

- commercial banks in BH, which on behalf of CBBH main units provide information on transactions for their clients on a monthly bases ITRS concept (surveys are regularly conducted since 2001)
- bh. insurance, telecom and post companies (surveys are regularly conducted since 2003)
- entity pension funds (surveys are regularly conducted since 2003)
- bh. companies with foreign investment (surveys are regularly conducted since 2004)
- embassies and international organizations in BH (surveys are regularly conducted since 2004)

- bh. companies that conduct import/export of goods and services for data on trade credits (surveys are regularly conducted since 2005)
- bh. transporters that provide transport services to non-residents (surveys are regularly conducted since 2008)

Revisions resulting from changes in the balance of payment statistics compilations methodology

In the balance of payment statistics methodology improvements are continually being performed, with an aim to fulfill methodology standards given by the IMF Balance of Payment Manual (BPM5) and by recommendations of the IMF mission technical assistance. Concepts and definitions of the BH balance of payments follow international standards, with some technical exceptions, mentioned in the BPM5 including Economic Territory, Residence, Double-entry system, Principles for Valuation and Time of Recording, and Sector classification.

Revisions resulting from changes in data sources

In cooperation with the IMF mission, the data sources were changed in several occasions (and it reflected on quality of source data) as well as the method of data estimations, with the goal to improve overall reliability of BoP statistics.

# **GOVERNMENT FINANCE STATISTICS**

GENERAL GOVERNMENT OPERATIONS (Short description of methodology)

#### Introduction

This note explains the purpose of government finance statistics, particularly the statistics in the tables attached, the methodology and sources used to compile the statistics, and future developments.

# Purpose of government finance statistics

Government finance statistics (GFS) of the type covered in the attached tables are designed to provide comprehensive statistics that enable government policy makers and analysts to study developments in the financial operations of the general government sector in BH in a consistent and systematic way. The GFS analytic framework can be used to analyze the operations of a specific level of government and transactions between different levels of government as well as the total general government sector. These statistics can be used for such purposes as assessing the size of the general government sector in the overall economy; its contribution to total demand, investment and saving; the impact of fiscal policy on the economy, including resource use and indebtedness; the tax burden, and so on.

Because GFS data are based on the same conceptual framework as other macroeconomic statistics, they can be directly related to other macroeconomic statistics, such as the national accounts, balance of payments and monetary statistics, based on IMF statistical standards.

# Methodology

The conceptual framework used for compiling the attached statistics is based closely on the international standards for GFS produced by the IMF and published in the GFS Manual 2001. That Manual created a comprehensive analytical framework that systematically records and reconciles both transactions (operations) and balance sheets, primarily using the accrual basis rather than a cash basis for the time of recording transactions. Various balancing items (such as net operating balance) are defined, based on the needs for fiscal analysis.

Four main statistical statements are defined in the GFS methodology, three based on accrual accounting (Government Operations, Other Economic Flows, and Balance Sheet) and one on a cash basis (Sources and Uses of Cash). The attached tables relate just to Statements of Government Operations. Other statistics will be compiled at a later stage.

#### **Government Sectors**

The attached government finance statistics relate to the transactions of the *general government* sector of the BH economy and its sub-sectors. In accordance with the GFS Manual, the general government sector is defined to cover all entities that fulfill the functions of government as their main activity. It does not cover government-owned business enterprises producing goods or services for profit. Extrabudgetary funds that perform some of the usual functions of government (pension and other social security funds) are included in general government, as well as PE for road reconstruction and maintenance.

For analytic purposes and as the basis for international comparisons, the GFS Manual divides the general government sector into several standard sub-sectors: central government; state, provincial or regional; and local government. *Central government* is the level of government whose political authority extends over the whole territory of a country and typically includes responsibility for taxation, defense, international relations, social security, education, and economy policy. A *State, provincial or regional government* is the largest geographical area into which the country as a whole can be divided for political or administrative purposes. *Local government* units are the smallest geographical areas created for political or administrative purposes.

In applying this classification of general government sub-sectors to BH, only the local government sub-sector can readily be compared with other countries, but it does not play a relatively large role in fiscal operations in BH. The central government in BH has much more limited functions that typical in other countries. Since January 1, 2005 customs, excise, sales tax on excisable products and road tolls are collected on a single account, and distribution of that revenue between different

levels of government is based on the Key set by the Indirect Taxation Authorities. On the other hand, in BH the governments of the two "entities" and Brcko District have competencies over most government operations at this stage, though only within their own territories.

Further, the cantons in BH have rather similar powers to a state government in the GFS classifications, but only the Federation has cantons. Hence, to facilitate comparison between the two entities' government operations, cantons have to be consolidated with the federal level of the Federation of BH.

So, for the purpose of international comparability, "central government" is defined in GFS for BH as the consolidation of all governments except municipal ones, which are classified as local government.

#### **Data sources**

Accounting data that supports the budget operations of the Ministries of Finance at State, entity, canton and Brcko District level, together with data from the various extrabudgetary and social security funds, provide the basic data source for GFS. The various ministries of finance and other reporting units have been extremely cooperative with CBBH in providing annual budget reports and other information needed, particularly special reports from the ORACLE Treasury computer systems for use in compiling GFS. For compilation of annual GFS are used source data from 46 reporting units, of which two reporting units refer to municipalities (one reporting unit per each entity).

# **Coverage of present statistics**

The present statistics relate to Annual Statement of Government Operations, covering all of BH general government sector operations. Apart from the annual reports, since June 30, 2004, periodical reports on government operations are produced on the quarterly basis, excluding municipalities and PE for road reconstruction and maintenance, for which data are not yet available for their inclusion in the quarterly reports.

One further component of expenditure not covered in the present statistics is the extrabudgetary expenditure of directly financed international donor projects. It can be noted that some donor-financed projects are covered by the budget operations of government.

It is planned at a future stage to collect information on such off-budget projects and include them in government finance statistics.

The Statements of Government Operations does not at this stage include as an expense an item for consumption of fixed capital, again because data are not presently available. In all other respects the Statements have the same coverage and classification as specified in the GFS Manual.

# Definitions of selected items from report (detailed descriptions can be found in the GFS Manual 2001)

Accrual basis of accounting recording - a recording system, in which the time assigned to flows is when economic value is created, transformed, exchanged, transferred or extinguished.

*Gross operating balance* - Revenue minus expense other than consumption of fixed capital, unlike net operating balance.

Net acquisition of non-financial assets – Gross acquisition of fixed assets minus fixed capital consumption to which changes in inventories and transactions of other non-financial assets are added.

*Transactions in financial assets-* are presented in the table as net increase of each financial asset category and net increase of each liability category. Transactions that increase liabilities are referred to as the incurrence of liability. Transactions that decrease liabilities are variously titled repayments, reductions, redemptions, liquidations or extinguishments. Therefore, results of transactions in a certain category of financial assets are presented as net acquisitions.

# **Future developments**

CBBH plans to cover the level of local government and PE for road reconstruction and maintenance, that is, to compile statistics and report it together with central government finance statistics on quarterly basis. It is also planned to compile and include in reports data related to

directly financed international donor projects. However, the realization of above mentioned goals depend entirely on availability of necessary data, that is, data sources.

A significant problem in compiling GFS, which would worsen unless resolved for quarterly statistics, relates to the accounting classifications used by the various ministries of finance, extrabudgetary and social security funds. Each of the entity and State Treasuries uses a different chart of accounts as the basis for their accounting system, which in turn is used for reporting budget data to CBBH. Also, frequent changes are made to the charts of accounts and hence to the classification of accounting data.

Because the compilation of GFS necessitates the strict use of a standard classification of accounts, it is an extensive task for CBBH, after obtaining detailed accounting data from ministries of finance, to reclassify the hundreds of items to the standard GFS classification, particularly when the various charts of accounts are continuously changing.

CBBH will therefore be discussing with ministries of finance possible means of obtaining more standardized accounting data both to simplify the compilation task and enable more timely data to be published.

#### SEASONAL ADJUSTMENT

Seasonal adjustment of the statistics data removes the regular increases and decreases caused by seasonal influence such as time, season of construction works, fiscal reasons and the holidays. Seasonally adjusted series are making easier to the users to differ the changes from the period to period and they take out the seasonal influences. In the same time, with the seasonally adjusted series there will be published the original series of data.

All series of the statistical data of the CBBH (import, export and the monetary aggregate) are the seasonally adjusted.

Here is the method that is used for seasonal adjustment of these data series:

Regular seasonal influences in the original series can be removed by an averaging technique. Previously CBBH used a 12 months moving average. From February 2004 a new, more advanced, technique has been adopted, calls the Census X-12 method, originally developed by the U.S. Bureau of the Census and progressively upgraded in conjunction with statistical offices in developed countries. It is the most widely used seasonal adjustment process for official statistics. For further information about the method and the freely available software see <a href="www.census.gov/pub/ts/x12a">www.census.gov/pub/ts/x12a</a>. As well as adopting the X-12 seasonal adjustment method, the time series of data on exports and imports is now sufficiently long to enable a "trend-cycle" component to be calculated and published using the same method. The trend-cycle shows the underlying path or general direction reflected in the data, in other words the long-term trend and the business cycle movements in the series.