# 7. Features of Compilation of International Reserves and Net Foreign Assets of the Central Bank of Armenia[33]

## *7.1. Gross Foreign Assets of the CBA*

Gross foreign assets of the CBA are defined based on residency criteria. All the CBA financial claims on nonresidents are included in gross foreign assets. Unlike foreign assets, gross foreign reserves or international reserves are the most liquid part of foreign assets that are held by the Central Bank and can be used for direct financing of external and internal payments.

According to the definition of *Balance of Payments Manual*, fifth edition, IMF (1993), a country's international (foreign) reserves are "those external assets that are readily available to and controlled by monetary authorities[34] for direct financing of payments imbalances, for indirectly regulating the magnitude of such imbalances through intervention in exchange markets to affect the currency exchange rate, and/or for other purposes." From the definition follows that the country's foreign (international) reserves must satisfy three conditions: (i) must be foreign assets of the CBA, i.e. claims on nonresidents, (ii) controlled by the CBA and be readily available, (iii) be financial assets of sufficient liquidity.

The concept of international liquidity is important for foreign assets. In accordance to which assets are divided into convertible and non-convertible currencies, as well as into assets in the Armenian dram. The possibility of foreign reserves to be "readily available for financing of payments imbalances" is important as well, which also means, that the reserves must be denominated in convertible foreign currencies and have high liquidity to be readily available for carrying out external transactions. Thus, taking into account the above-stated and also the features of the given country (especially the foreign trade partners of the given country) the international reserves comprise assets only in free convertible currencies, including SDR and Euro, currencies included in their baskets, as well as currencies of some other developed countries: Swiss Franc, Swedish, Danish, Norwegian Crone, Canadian and Australian Dollar. Monetary gold is also considered a free convertible financial asset and is included in international reserves.

Thus, gross international reserves of the Central Bank include only liquid foreign assets denominated in convertible currencies, and are the total sum of all foreign assets, excluding those in non-convertible currencies and Armenian dram, as well as illiquid foreign assets. If the CBA performs swap operation with resident banks, international reserves change by the sum of the currency exchanged, and their future flows are

*[33] See also Appendices 2.6, 2.7 and 2.8, and the CBA Board Resolution 298, November 21 2000 on approval of "Calculation of external assets and external liabilities of the CBA, publication of information on condition and composition of Armenia's international reserves, and provision of such information to President of Armenia, National Assembly of Armenia, Government of Armenia".*
*[34] In case of the Republic of Armenia – by the Central Bank.*

shown in the standard foreign currency liquidity template (see section 7.4).

Foreign (international) reserves consist of following components:

1. Gold,
2. SDR holdings,
3. Reserve position in the IMF,
4. Other foreign currency assets.

***Gold*** – consists of standard gold bullion (monetary gold) the Central Bank owns (these must be at least 995/1000 pure), as well as gold on metal accounts with foreign prime banks and gold deposits at nonresident financial corporations. Gold is treated as a financial instrument because of its historical role in the international financial system and high liquidity in the international markets. All other non-standard gold the Central Bank owns is not monetary gold and should be classified as nonfinancial asset. Holdings of other precious metal standard and non-standard bullion are also treated as nonfinancial assets and are excluded from foreign reserves.

***SDR holdings*** – are financial assets created by the IMF and allocated to member countries, excluding those in the reserve position. SDR holdings represent unconditional rights to obtain other foreign exchange or reserve assets from other IMF member countries. Unlike other financial assets, monetary gold and SDR holdings are not claims on any other party, but at any time may be exchanged into claims on nonresidents, i.e. converted into foreign exchange issued by a nonresident Central Bank.

***Reserve position in the IMF*** – is expressed in SDR and equals to the value by which the quota of the country exceeds IMF holdings of national currency that is not related to purchase of reserve asset[35].

***Other foreign currency assets*** comprise several financial assets, which are included in foreign reserves depending on possibility of their use by the Central Bank:

- *Cash foreign currency* – consist of foreign notes and coins held by the Central Bank that are in circulation in one or several foreign countries and are legally used for making payments. They may also be withdrawn or be under withdrawal but available for exchange by banknotes in circulation. Cash foreign currency owned is a claim on the issuer country or central bank. Withdrawn notes and coins, as well as commemorative coins of all types of foreign countries are not included in foreign reserves.
- *Correspondent accounts in nonresident banks* – comprise the balances of Central Bank correspondent accounts in foreign exchange in foreign first class banks.
- *Deposits* - comprise all deposits of the Central Bank in foreign first class financial corporations (including banks). Restricted deposits and deposits with limitations are not included into foreign reserves.
- *Securities* – foreign reserves include only high liquid bonds and shares issued by nonresidents and consist of: (i) promissory notes and transferable promissory notes in foreign currency, (ii) bonds

[35] *Except the purchase of reserve position.*

issued or warranted by governments of other countries, Central Banks or other prime banks or financial corporations.

- *Repo agreements* with nonresident financial corporations, as well as trust operations with these corporations are also included in foreign reserves, if Repo securities are liquid enough and assets handed over to trust management can be used by the Central Bank for making payments after a very short period of time upon request.
- *Credits* – only short-term credits to and used overdrafts of foreign first class banks and nonbank corporations in foreign exchange (due for payment upon request) are included in foreign reserves. This category covers also short-term accounts and other short-term receivables of the CBA from nonresidents. Long-term loans and receivables are not included in foreign reserves.

### ***7.2. Gross Foreign Liabilities of the CBA***

Gross foreign liabilities are all claims of nonresidents on the Central Bank of Armenia. Like foreign reserves, these claims can be denominated in convertible and non-convertible foreign currencies and in the Armenian dram. Liabilities denominated in the Armenian dram included in foreign liabilities can be treated as convertible, because unlike foreign claims on nonresidents, foreign liabilities in dram are sufficiently liquid in Armenia, especially as the liabilities of the Central Bank. Thus, foreign liabilities of the CBA in dram are equal to foreign liabilities in foreign currencies, as they can be converted into free convertible foreign currencies upon request.

All liabilities to nonresidents are included in foreign liabilities of the CBA, despite accurate measurement of foreign liquidity requires to include only short-term (with residual maturity up to one year) foreign liabilities. Considering that the CBA’s foreign reserves serve also for the repayments and servicing of the Governments’ foreign loans, this safe-side approach is acceptable.

Thus, gross foreign liabilities include:

1. all credits from IMF (direct loans and foreign exchange purchase-repurchase agreements),
2. correspondent accounts of nonresident banks in the CBA,
3. deposits of nonresidents in the CBA,
4. credits and overdrafts from nonresident banks and other financial institutions,
5. other liabilities to nonresidents.

***Credits from IMF*** – include credits from IMF covering Systemic Transformation Facility (STF) and Poverty Reduction and Growth Facility (PRGF, former ESAF).

***Correspondent accounts of nonresident banks in the CBA*** – include all correspondent accounts of nonresident banks in the CBA.

***Deposits of nonresidents*** – include all deposits of nonresident banks, financial institutions, legal entities, and international organizations in the CBA.

***Credits from nonresident banks*** – include all credits and used amounts of overdrafts provided by foreign banks to the CBA.

***Other liabilities to nonresidents*** – include REPO agreements with foreign financial organizations and banks, payable accounts to nonresidents, liabilities on L/C and all other liabilities to nonresidents.

### *7.3. Net Foreign Assets of the CBA*

Net foreign assets (NFA) are observed to reflect the external position of the CBA. NFA are the difference of foreign assets and foreign liabilities. NFA are very important indicator for the monetary policy. They reveal the influence of external sector on the monetary indicators. In particular, it allows estimating the origination of monetary base stipulated by acquisition of net foreign assets by the CBA.

The calculation of NFA of the CBA has some features. Several indicators of NFA are calculated for different purposes:

- general NFA embodies the difference between all foreign assets and foreign liabilities of the CBA,
- NFA denominated in convertible foreign currencies embodies the difference between the CBA international reserves (i.e. foreign assets in freely convertible foreign currencies) and the CBA foreign liabilities in convertible foreign currencies and Armenian dram.

Besides the above-mentioned indicators there is another feature to calculate foreign assets (mentioned also in the Sectoral balance sheets). Amounts, received from privatization of state enterprises are accumulated in the special privatization account of Government in the CBA, constituting at the same time part of gross foreign reserves. Nevertheless, they are bounded assets and as those are not included in NFA.

Thus, besides the above-mentioned indicators, the following indicators are calculated:

- foreign reserves excluding privatization accounts which is the difference of foreign reserves of the CBA and balances on the special privatization account of the government,
- net foreign assets in convertible currencies excluding privatization accounts, which is the difference of CBA net foreign assets in convertible currencies and balances on the special privatization account of the government,

For monetary policy programming purposes NFA are also calculated based on fixed (program) exchange rate (Appendices 2.6 and 2.7). For certain period of time (usually one year) exchange rates are fixed not only for the Armenian dram in respect to other currencies, but also for the exchange rates of main convertible currencies in respect to US dollar (Appendix 2.5). This allows eliminating the influence of exchange rate fluctuations on the level of NFA. Nevertheless, in the case of significant fluctuations of foreign exchange rates the NFA calculated based on fixed exchange rates can deviate significantly from the one based on market rates. That is why NFA are calculated and published based on both fixed and market exchange rates, with corresponding footnotes.

### 7.4 Armenia’s data template on International reserves and foreign currency liquidity

The international reserves and foreign currency liquidity template has been developed under Special Data Dissemintaion Standard (SDDS). Its purpose is to estimate member countries’ foreign currency position and liquidity. Unlike the international reserves in the template on international reserves and foreign currency liquidity, foreign currency assets are presented in a more detailed form. Financial flows related to the foreign currency assets and liabilities for one year are also disclosed. If the international reserves represent the monetary authorities’ claims on nonresidents, the template includes both the authorities’ foreign currency claims on residents and non-residents. Unlike the international reserves, which are based on the CBA balance sheet data, the foreign currency liquidity template incorporates also related CBA off balance sheet data as well as data on government external flows.

The international reserves and foreign currency liquidity template includes high liquid assets in convertible currency. The assets are recorded on an accrual basis, i.e. the interest accrued on each financial instrument is shown along with the instrument.

The international reserves and foreign currency liquidity template consists of four sections which are presented in separate tables. The first section covers foreign currency assets, second section presents expected flows (both outflows and inflows), third section includes contingent flows and fourth section contains memo items.

***Table I. Gross international reserves and other foreign currency assets***[36]

The first table of international reserves and foreign currency liquidity template: “Gross international reserves and other foreign currency assets”, consists of two parts: gross international reserves and other foreign currency assets.

*Part I. Gross international reserves*

Gross international reserves are foreign assets that are readily available to the country’s monetary authorities for direct financing of payments imbalances, for indirectly regulating the magnitude of such imbalances through exchange rate, and/or for other purposes (see section 7.1 of this Manual).

This part of the table is compiled based on the CBA balance sheet data, and the total amount corresponds to the difference between items “Gross reserves” and “Special privatization account” of the table “Net foreign assets of the CBA, calculated on an accrual basis” presented in Appendix 2.7. Recording and presentation principles of all the instruments mainly correspond with comments for each individual instrument given in section 7.1 of this Manual. Components of separate

[36] *See Appendix 2.8.*

instruments are presented in a more detailed form. In particular, a separate line in item "Securities" shows securities, issued by enterprises headquartered in Armenia but located abroad. A separate line in item "Total currency and deposits" includes total claims (currency or deposits) on other national central banks, Bank for International Settlements (BIS) and International Monetary Fund (IMF). Foreign currency in the vault of CBA is also included in this line as a claim on other central banks. Claims on banks headquartered in reporting country and banks headquartered abroad are also shown separately. In case of Armenia, all the claims included in this item are claims on banks headquartered abroad, as only deposits and corresponding accounts with nonresident banks are included. "Total currency and deposits" item also includes trust accounts with prime foreign banks or financial institutions (see section 7.1), as well as short-term loans and used overdrafts, which must be repaid upon request. This item is reduced by the amount of funds at government special privatization account, as the international reserves are usually expressed net of the privatization funds.

A separate line in item "Gold" shows the actual volume of gold in mln troy ounces.

"Other reserve assets" include liquid assets that are part of international reserves but not included in other categories. This item also includes foreign currency loans or short-term trade credits to nonresidents extended by the CBA, their payables to the CBA on financial operations, foreign currency repo agreements with nonresident financial institutions etc.

*Part II. Other foreign currency assets*

Other foreign currency assets include those foreign currency assets, which are not included in gross international reserves, i.e. these do not conform to the definition of gross international reserves. Though they are liquid and in convertible currency, these assets can be also claims on residents, unlike gross international reserves. Examples of such assets are foreign currency deposits and correspondent accounts with resident banks, gold reserved for financial market operations, investments in foreign currency securities of residents, financial derivatives (Appendix 2.8).

This part records receivable foreign currency from swap operations, performed by the CBA, intermediate accounts of nonfinancial operations. As international reserves are reduced by the amount of funds on government special privatization account, these funds are also shown in this part. Data on "Other foreign currency assets" are also based on the CBA balance sheet.

***Table II. Predetermined short-term net drains on foreign currency assets (nominal value)[37]***

This section is designed to report the authorities' predetermined short-term net drains on foreign currency assets with the purpose of estimating changes in the country's official international reserves in the near future (one year). The section breaks down these flows by maturity: less than one month; from two to three months and from three

[37] *See Appendix 2.9*

months to one year. The flows shall be shown in nominal value, i.e. by value which is expected to be paid or received. Flows do not include interest income on assets shown in Table I, as these accounts are already included in Table I, along with each instrument as an accrued interest.

The table contains several items, each showing the inflow (long position in case of financial derivatives) and outflow (short position in case of financial derivatives).

In item outflow of “Foreign currency loans, securities, and deposits” service payments for foreign currency loans, deposits and issued securities paid by the Central Bank and Government are reported.

The item inflow of “Foreign currency loans, securities, and deposits” include repayments, as well as interest payments on foreign currency loans within one year, extended by both the Central Bank and Government.

Ministry of Finance and Economy provides information on external debt service payments on the loans of Armenian Government (provided and received). Data on the CBA external debt is calculated using “IMF home page” and relevant loan agreements. Future debt service payments are calculated using SDR/USD and USD/EUR program exchange rates for the current year (Appendix 2.5).

Item “Aggregate short and long positions in forwards and futures in foreign currencies vis-à-vis the domestic currency (including the forward leg of currency swaps)” includes such derivative instruments, on which foreign currency flows are determined. These are forwards, futures and swaps. Options are more complex financial instruments, flows on which can occur or not, depending on certain conditions. The short/long position refers to derivatives, on which outflow/inflow is expected.

Other flows include different operations, performed by the CBA and Government such us letters of credit and membership fees to different international organizations. The Ministry of Finance and Economy of Armenia provides information on membership fees in dram terms, which is converted into US dollars using the program exchange rate. Membership fees include payments to international and intergovernmental organizations both in convertible and non-convertible currency, as funds for these payments can be purchased in convertible currency. Other flows may also include different operations, performed by monetary authorities and central government, such us repos, if the securities sold were not reduced from the reserves, and reverse repos, if the securities received were included in reserves.

### *Table III. Contingent Short-Term Net Drains on Foreign Currency Assets (nominal value)*[38]

This Section includes all foreign currency flows that depend on a certain condition, i. e. contingent instruments(see section 3.7 of this Manual). In the Table such instruments are divided into the following groups:

- contingent liabilities in foreign currency, including guarantees, letters of credit and other similar liabilities of monetary authorities and the central government;

[38] *See Appendix 2.10.*

- foreign currency securities issued with embedded options, which are securities, that allow creditors to demand early repayment;
- undrawn, unconditional credit lines;
- short (outflow) and long (inflow) positions of options in foreign currencies vis-a-vis the domestic currency.

Undrawn, unconditional credit lines are foreign currency lines of credit, which can be used unconditionally. In the table these lines of credit are separated into two parts: those issued by and provided to the country’s monetary authorities. Each line of credit is broken down by its issuer (holder), that is other national central banks, Bank for International Settlements, IMF, banks and other financial institutions headquartered in Armenia and banks and other financial institutions headquartered outside Armenia.

“Aggregate short and long positions of options in foreign currencies vis-à-vis the domestic currency” discloses information on possible flows resulted from options. In long positions, possible option inflow and in short positions, the outflow is shown.

The table assumes stress-testing for options, which will be performed at the given (or assumed) exchange rate. Stress-testing refers to possible option inflows and outflows, conditioned by changes in the exchange rate.

This section also includes liabilities on foreign currency guarantees, issued by the CBA and Government, due for the period up to one year. Information is based on the CBA off-balance sheet data and data provided by the Ministry of Finance and Economy.

***Table IV. Memo Items***[39]

This table provides specific information to an observer, breaking down the assets by some features, especially to show assets of monetary authorities and general government that are held temporarily and may have some restrictions. First of all, this refers to pledged assets and repo securities. These securities shall be broken down based on the fact if they have been included in reserve assets or not, or reduced from securities. Derivatives, which require guarantee deposit, shall also be separated.

It is required to break down gross official reserves of the country by currences in SDR basket and other currencies. Gold is included in SDR basket.

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[39] *See Appendix 2.11.*