

FINANCIAL ACCOUNT AS A TOOL FOR MACROECONOMIC ANALYSIS (ON THE EXAMPLE OF THE REPUBLIC OF ARMENIA)

Margarita YEGHIAZARYAN

YSU, Chair of Economics and International Economic Relations,
Associate Professor

Arsen OHANJANOV

YSU, Chair of Economics and International Economic Relations,
Ph.D. student

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Introduction. The financial account and balance sheets of financial assets and liabilities are part of the System National Accounts of the Republic of Armenia. On May 5th, 2022, Armstat first published annual financial accounts and balance sheets of financial assets and liabilities for 2019¹. The financial accounts are an important source of data for analyzing the activities of institutional sectors of the economy for which detailed information is not available (for example, for non-financial organizations and household sectors), including for studying the financial investments of these sectors in conjunction with real economic variables.

Literature review. After the end of World War II, a new epoch began in the development of the statistical model of the economy. It was connected with the harmonization of macroeconomic indicators, national systems, and international comparisons. This process was based upon the elaboration of the principles of national accounts. The origins of the System of National Accounts (SNA) trace back to the 1947 Report of the Sub-Committee on National Income Statistics of the League of Nations Committee of Statistical Experts under the leadership of Richard Stone [1]. The SNA standard of the United Nations was first developed in 1953 and the second one was issued in 1968. This methodological book also reflected the macroeconomic indicators of assets, liabilities and sectoral interactions. The UN elaborated a new SNA standard in 1993. As a result of the globalization impact, the UN adopted a new methodology for SNA in 2008.

Scientific novelty. The paper touches upon the first published indicators of the financial account of the System of National Accounts of the Republic of Armenia. Within the framework of national accounts, the analysis work presents financial accounts and balance sheets of financial assets and liabilities in the context of institutional sectors and financial instruments, as well as factors influencing the net lending or net borrowing of the financial account by institutional sectors.

¹ Sources: The financial account and the balance sheets of financial assets and liabilities of the Republic of Armenia for 2019: <https://www.armstat.am/en/?nid=157&id=843>

Methodology. The financial account is the final account in the full sequence of accounts that records transactions between institutional units. The financial account records transactions that involve financial assets and liabilities and that take place between resident institutional units and between resident institutional units and the rest of the world. The balance sheets show the values of the stocks of assets and liabilities held by institutional units or sectors at the beginning and end of an accounting period. The balancing item of the financial account, the net acquisitions of financial assets less net incurrence of liabilities, is net lending (+) or net borrowing (-) (B.9F)¹.

Analysis. The compilation of the financial account according to SNA 2008 in the Republic of Armenia has made it possible to complete the system of national accounts, to present accounts by institutional sectors. In other words, the financial account provided an opportunity to link the production of goods and services, the generation, distribution, redistribution, and use of income as well as the results of economic activities related to foreign economic activity, with financial results.

As a rule, international statistical standards use the accumulation accounts (capital account and financial account) as a tool for macroeconomic analysis to study financial flows. The capital account records acquisitions and disposals of non-financial assets as a result of transactions with other units, internal bookkeeping transactions linked to production (such as changes in inventories and consumption of fixed capital) and the redistribution of wealth by means of capital transfers [UN, IMF, etc., 2009, 39]. The financial account records acquisitions and disposals of financial assets and liabilities, also through transactions [IMF, 2017, 279]. The above accounts are theoretically balanced by net lending or net borrowing in the System of National Accounts. We can calculate net lending/ net borrowing of capital account by the following [UN, IMF, etc., 2009, 27]

$$NL/NB = S + CTR - CTP - GFCF - CI - ADVNA, \text{ where:}$$

NL/NB - net lending/ net borrowing; S-Saving; CTR-Capital transfers, receivable; CTP-Capital transfers, payable; GFCF-Gross fixed capital formation; CFC-Consumption of fixed capital; CI-Changes in inventories; ADVNA-Acquisitions less disposals of valuables and non-produced assets.

In the financial account, it is calculated as the difference between the net acquisitions of financial assets less net incurrence of financial liabilities, is net lending (+) or net borrowing (-) [EC, 2013, 257]:

$$NL/NB = FAA - FIL \text{ where: } FAA - \text{ net acquisitions of financial assets; } FIL - \text{ net incurrence of financial liabilities}$$

¹ The financial account indicates how deficit, or net borrowing, sectors obtain the necessary financial resources by incurring liabilities or reducing assets and how the net lending sectors allocate their surpluses by acquiring financial assets or reducing liabilities. See: System of National Accounts. United Nations, IMF, World Bank, OECD and EC, New York, 2009, p.219

Figure 1. presents the comparison of the net lending or net borrowing of the financial account with the capital account of RA for 2019. mln drams

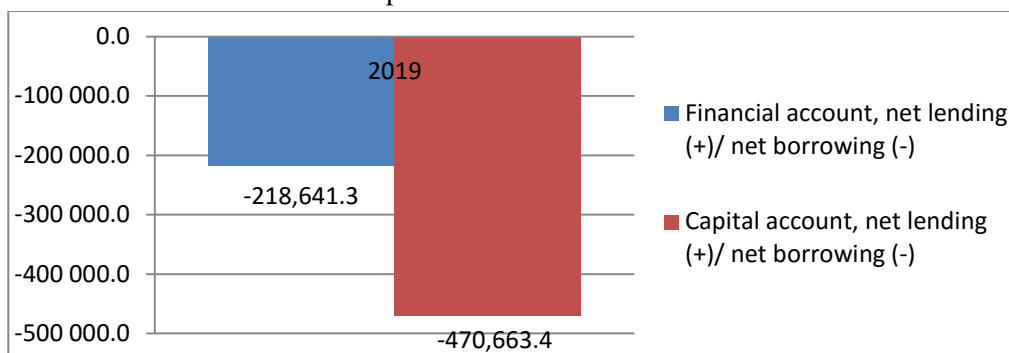


Figure 1. Net lending (+)/net borrowing (+) of financial and capital accounts of the Republic of Armenia for 2019 [4]

Theoretically, net lending/net borrowing of the capital account should be equal to net lending or net borrowing of the financial account, but in practice, the experience from other countries shows, that the above indicators differ both for the economy as a whole and for individual institutional sectors. In practice, accomplishing this identity is one of the most difficult tasks in compiling national accounts.

The differences in question are mainly due to data from various sources, incomplete data (in particular, incomplete data on households' equity shares of RA), features of estimates, data availability, institutional features, etc. Note that the above numerical differences are also present in the comparisons of net lending or net borrowing of the capital account with the financial account of France and a number of other countries (Fig.2).

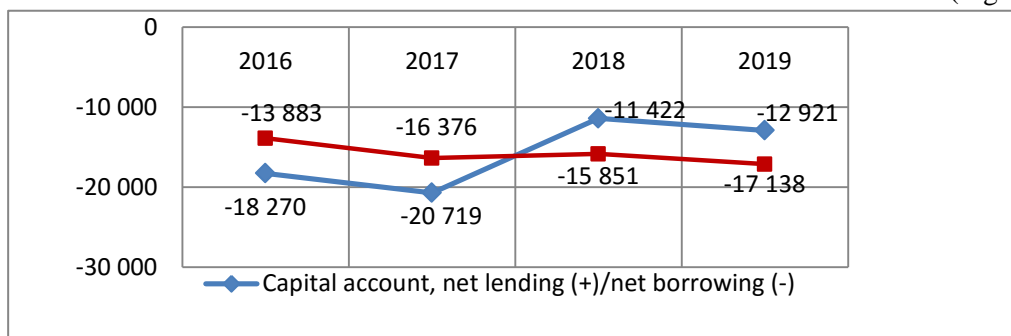


Figure 2. Net lending (+)/net borrowing (+) of financial and capital accounts of France mln. euros [5]

Among the factors affecting the net borrowing or net lending of financial account, we can single out equity, investment funds, purchase and sale of debt securities, currency, credit-loan agreements, the volume of deposits, etc. Armstat has compiled the preliminary tables of the financial accounts and financial balance sheets of the System of Na-

tional Accounts in collaboration with the international experts, as well as in cooperation with the specialists of the Central Bank and the Ministry of Finance of the Republic of Armenia. Financial Account for 2019 and the balance sheets have been compiled on the basis of spreadsheets based on the “From whom-to-whom” (FWTW) approach [4]. In 2019, the only “borrowing sector” of the Armenian economy was non-financial organizations, amounting to -442 923.7 million drams. The above can be conditioned by significant credit obligations of non-financial organizations (see Figure 3). According to data published by Armstat, the lending sectors were financial organizations, general government, households and non-profit institutions serving households (NPISHs), which amounted to 30 780.3, 4 671.9 and 188 830.2 million drams, respectively. The lending sector of the households and NPISHs is due to the significant increase in equity. The growth of accumulated loans of financial organizations, as well as the growth of debt securities, led to the excess of assets over liabilities in the financial organizations' sector.

The general government sector has formed the lending sector too. This can be substantiated by the effective economic policy and the high growth of tax revenues of the Republic of Armenia in 2019. Thus, the tax revenues of the consolidated budget increased in 2019 compared with 2018 (1 384.5 billion drams) to 1 614.9 billion drams. However, it must be stated that the domestic economy was recognized as a borrowing country with 218.6 billion drams in 2019 [4]. It should be noted that Armenia has been a borrowing country for many years, that is, more funds have been “attracted” than “taken out”. At the same time, according to the results of the 2019 financial account at the level of the domestic economy, this circumstance can be mainly explained by the increase of credit debts in the institutional sector of non-financial organizations.

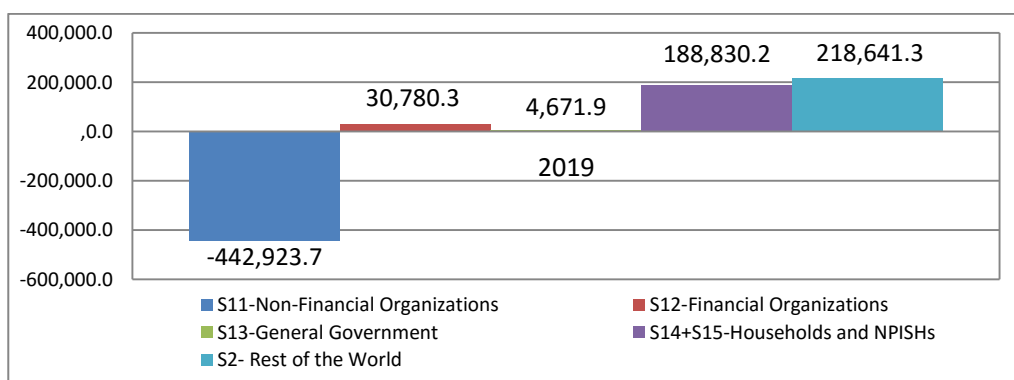


Figure 3. Financial account. Net lending (+)/net borrowing (-) by sectors of the economy, mln drams [4]

In order to comprehensively describe the indicators of the financial account of RA, it is necessary to analyze them by institutional sectors of the economy and financial instruments. According to the results of the survey of non-financial organizations published

by ARMSTAT, the total financial assets at the end of 2018-2019 amounted to 1 836.0 and 2 010.3 billion drams, respectively, and the total liabilities were 6 288.3 and 6 783.9 billion drams, respectively. At the end of 2018-2019, the largest share of the structure of financial assets in non-financial organizations were "currency and deposits" (34.2% and 35.2%, respectively), "equity and investment fund shares" (34.5% and 36.3%, respectively) financial instruments (see Figure 4). The structure of liabilities in this sector was dominated by loans, equity and investment fund shares.

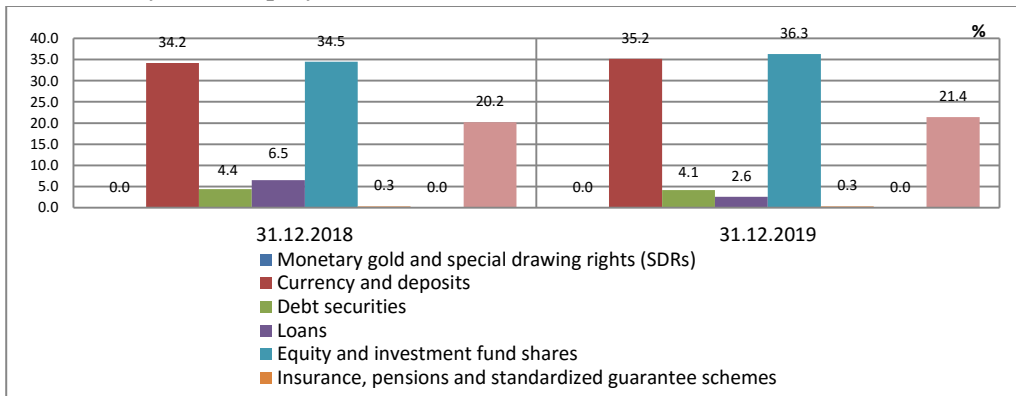


Figure 4. Non-financial organizations sector’s assets by financial instruments, %¹

The assets of the financial institution's sector at the end of 2018–2019 amounted to 5 431.0 and 6 502.5 billion drams, and liabilities were 6 010.8 and 7 076.6 billion drams, respectively. According to the data provided by the Central Bank of Armenia, in the financial sector at the end of 2018–2019, most of the assets were loans, accounting for 62.8% and 61.9%, and debt securities were 23.8% and 22.7%, respectively (see Figure 5). With regard to liabilities, at the end of the same period, 60.4% and 62.5% had been allocated to “currency and deposits” (F2).

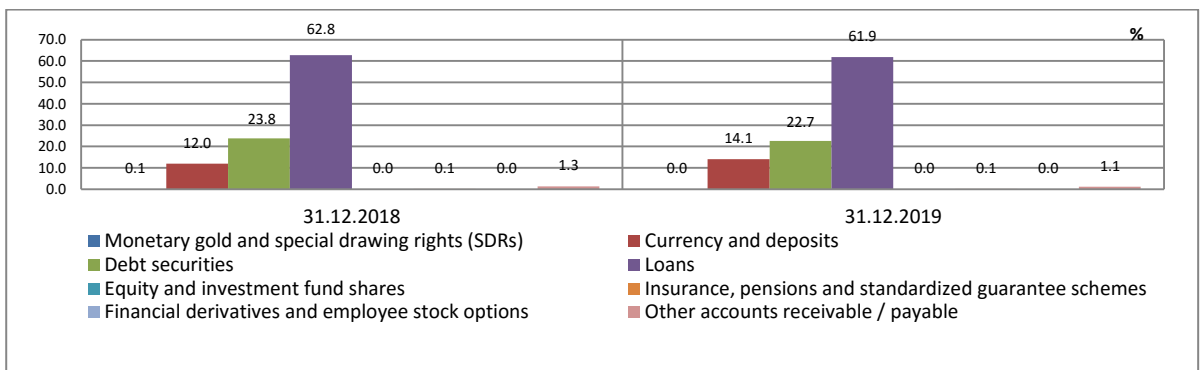


Figure 5. Financial organizations sector’s assets by financial instruments, % [4]

¹ All figures are compiled by the author.

According to the data of the Ministry of Finance of RA, in the general government sector of the financial account, at the end of 2018-2019 the assets amounted to 1 049.1 and 1 249.4 billion drams, respectively. At the end of 2018-2019, according to the data of the general government sector of the financial account, the assets amounted to 1 049.1 and 1 249.4 million drams, respectively. In the general government sector, 40.8% and 34.4% of assets were loans; 18.1% and 26.7% were “currency and deposits”; 21.5% and 19.7% were other receivables. At the end of the above period, liabilities amounted to 3 218.9 and 3 408.5 billion drams, respectively. 62.9 and 61.3% of the structure of liabilities were formed from loans.

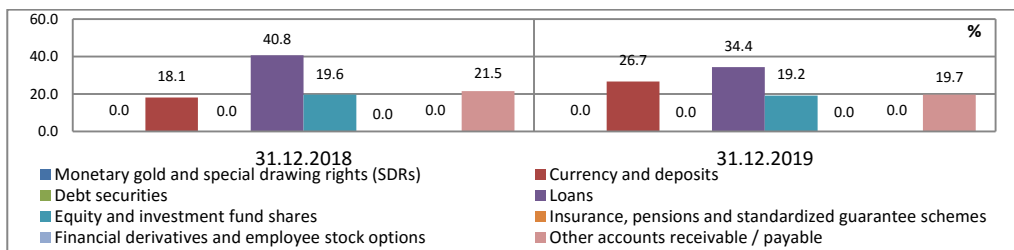


Figure 6. General government sector’s assets by financial instruments, %

ARMSTAT has collected data on households and NPISHs from various institutional sectors as a "residual sector". The financial account for the households and NPISH sector has been chiefly estimated on the basis of information declared by other sectors. Thus, at the end of 2018–2019, the total assets of households and NPISHs amounted to 4 238.0 and 4 817.7 billion drams, respectively, and the liabilities were 1 576.2 and 1 975.2 billion drams, respectively. Households (including NPISHs) assets were mainly formed from "currency and deposits" (60.3% and 57.8%) and "equity and investment fund shares" (25.1% and 27.7%) (see Figure 7). In the structure of liabilities, loans accounted for 93.5% and 94.6% [4].

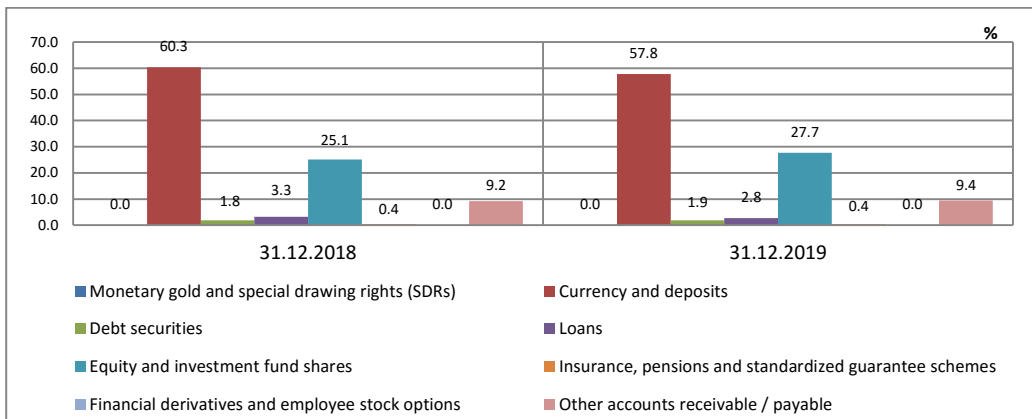


Figure 7. Households and NPISHs sector’s assets by financial instruments, %

According to the data formed by the Balance of Payments, the assets of the external sector as of the end of this period were 7 093.6 and 7 670.5 billion drams, and the liabilities were 2 553.4 and 3 006.3 billion drams, respectively [4].

As for the share of financial instruments in the rest of the world, more than half of assets (53.5 and 52.4%) were accounted for by loans, and investment funds accounted for 25.6 and 22.6%, respectively (see Figure 8).

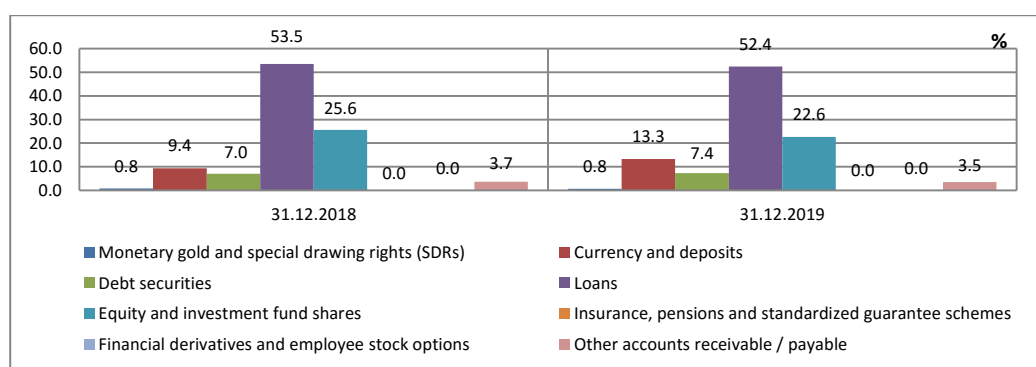


Figure 8. Rest of the World sector's assets by financial instruments, %

Conclusions. The compilation of the financial account according to SNA 2008 in the Republic of Armenia has made it possible to complete the system of national accounts and to present accounts by institutional sectors.

Armenia has been a borrowing country for many years, that is, more funds have been “attracted” than “taken out”. According to the results of the 2019 financial account at the level of the domestic economy, this circumstance can be mainly explained by the increase of credit debts in the institutional sector of non-financial organizations. Financial organizations, general government, households, and NPISHs have created "additional resources" that can become the main sources of production, construction, acquisition of fixed assets, financing, and domestic investments in both this sector and other sectors.

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The financial account and balance sheets of financial assets and liabilities are part of the System of National Accounts of the Republic of Armenia. Financial account and balance sheets of financial assets and liabilities, being an important information basis for conducting an in-depth study of financial flows in the economy and structural analysis within the framework of macroeconomic analysis, allow not only to evaluate the structure of financial assets and liabilities of economic agents, but also to timely identify emerging risks and the imbalances in various sectors of the economy. The paper touches upon the calculation of balancing items of capital and financial accounts, compilation features and methodological aspects. The article analyzes the volumes, structure, and dynamics of financial instruments, both in the context of the economy as a whole and its separate institutional sectors. It also presents factors affecting the net lending or net borrowing of the financial account by institutional sectors.