



## Developments related to the methodological changeover in the financial accounts

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### Abstract

The recent changeover in the international methodological standards have not resulted substantial changes in the structure and content of the national accounts. However, the direction of changes has been rightly recognized in more fields, and some of these are mandatory requirements or have been introduced as recommendation in the new standards. An important change concerning financial accounts is that greater emphasis has been put on quarterly accounts and integrated accounts have come to the front, that unifies the compilation of financial and non-financial accounts. New standards attempt to introduce some off-balance-sheet instruments into the accounts (standardized guarantees, employee stock options, social security implicit pension liability) and pay more attention to the full coverage of the economy in the statistics (including SPEs). It was an essential effort that the segregation of financial and non-financial corporation be sharp and new statistics present the expanding financial sector in a more detailed breakdown. Another step forward is that the statistics strive to meet the needs of counterparty and currency breakdown, as well as, detailed changes in stock. In this paper we show that how we can meet user needs also shaped on the level of statistical standards with development of the data collections, estimation procedures, compilation process and information systems. We review that financial accounts statistics as an integrating statistical field can only support the analytical work with data set comprehensive, consistent, detailed and multi-dimensional if it relies on the information of the other financial statistics, uses and develops every possible data source, as well as, supplements the missing areas with high quality estimations and supports these with an efficient IT system. The paper also makes an effort to illustrate how financial accounts can be upgraded with information already available in the integrated financial statistics production process in order to better satisfy the need of users with macro prudential interest. The illustrated upgrade will include the integrated use of the newly introduced attributes of the new BoP methodology like information on ultimate parent, the incorporation of micro information in order to supplement financial accounts with distributional information and the creation of risk indicators using the available information including the updated maturity breakdown of the revised methodology. The author will also make recommendations for future changes that could further enhance financial accounts with information supporting the assessment of financial stability.

**Keywords:** sectoral accounts; financial accounts; SNA200, ESA2010.

### 1. Introduction

The system of national accounts is a comprehensive and consistent macro accounting system being more widespread than any other statistical or accounting system. It provides a consistent interpretation of the main financial categories and ensures temporal and spatial comparability for the compiled data. A growing number of users recognize the potential in national accounts as an integrating statistics and, accordingly, the changes in methodology lead to broadening of uses. It is therefore obvious that the system of national accounts including financial accounts be the overall framework which more and more financial statistics can be linked to and ensures a common language among the different level of aggregation and information content in financial statements. Below, we review the methodological changes in terms of their contributions to the extension of use of financial accounts and present what further improvements are needed for statistics to provide up-to-date information about the financial intermediary system, as well as other actors of economy. We also show that how the interconnection of various macro statistics like balance of payments statistics, securities statistics, as well as banking

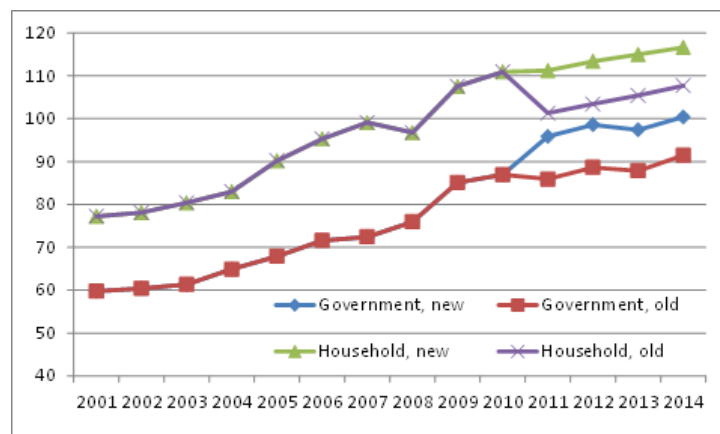
statistics with the financial accounts and involvement of other available micro-level database such as corporate balance sheets to the system increase the analytical possibilities.

## 2. The increment of methodological changes to the development of the financial accounts

The methodological shift of national accounts has carried out or launched numerous changes that aimed at the improvement of financial accounts. In recent decades, the interest from the flow data and the classic accounts has turned to the stock data. A more complete interpretation of wealth, the expansion of use of market valuation and the compilation of full balance sheets for all sectors, the expanded range of financial instruments, as well as the details of all the categories affected in that direction. Standardized guarantees, employee stock options and social security pension entitlements as financial instruments reflect the intention to the more complete capture of financial wealth. In other cases, the extension of accrual accounting generated technical financial instruments such as state liability for takeover of private pension fund assets or one part of insurance technical reserves. In addition to the classic, investment-based, debt or equity instruments, instruments resulting from conditional commitment therefore increasingly appear in the financial accounts. Certain parts of these instruments symbolic importance, since in the majority of countries significant stocks are not formed. In other cases, however, they basically alter the financial wealth of a sector or economy and generate serious differences between the data in countries having dissimilar financial schemes.

In Hungary, the transfer of private pension fund assets to the general government induced a technical claim of almost 10 percent of GDP among the financial assets of households and increased the liabilities of general government with the same amount from 2011 according to the renewed methodology of national accounts. This vast amount of other accounts receivable/payable is difficult to interpret, as the former private pension fund members have not more claim on the social security system than those insured individuals who were not fund members. This instrument representing 10 percent of households' financial assets and liabilities of general government respectively therefore does not add anything to the wealth of corresponding sectors, this is not the pension claim itself and there is no such other claim between the sectors. If once the implicit social security pension entitlements are fully integrated into the core accounts they will radically rearrange the financial wealth of households and general government. Technical instruments being 200-300 percentage in the terms of GDP will overwhelm the traditional financial assets and liabilities.

Chart 1. Households' financial assets and liabilities of general government according to the old and new methodology, in per cent of GDP (the effect of different accounting of takeover of private pension fund assets on financial wealths)





Monitoring, evaluation and placement in statistics of the new types of financial instruments raise many difficulties. Instruments resulting from conditional commitment or relating to guarantee or insurance appear as liabilities, at the most, in the balance sheets of institutions providing services. The corresponding claims are not recorded by the partners, moreover, the partners themselves are unidentifiable because a risk community does exist. Integration of these instruments into financial accounts bridges the gaps between the statistics and the statements of risk-taking (financial, governmental) institutions, however, distances the financial accounts data from the financial statements of investor sectors (mainly non-financial corporations, households) that do not acclaim them as owned assets. Producing detailed granular data, in particular, represent major problem, whereas the compilers of statistics estimate them on macro-level imputing those instruments that are not perceived as investments or claims by economic actors. In our case, takeover of private pension fund assets, standardized guarantees and recording of non-life insurance reserves are respectively such items for which finding the right partners of transactions require more serious consideration.

Besides, methodological changeover in national accounts fostered the more detailed presentation of economic sectors and financial assets. Several breakdowns to be produced were formerly listed among recommendations but now there is a stronger need for providing them, thus, the statistics of various countries on the level of details, as well, are more comparable. In the financial accounts, the spread of partner sector and currency breakdown, the more detailed presentation of financial corporations sector, as well as the separation of public corporations data within the non-financial corporations sector are considered the most significant steps forward in the field of production of detailed statistics. The extension of financial corporations sector (with captive financial institutions) for content and the segregation of mixed content, heterogenous group of institutions (credit institutions - MMFs, OFIs - other investment funds) are serious achievements of methodological changeover.

During the compilation of Hungarian financial accounts the principle has always been that detailed sector breakdown for each instrument and counterpart sector breakdown, as well as local and foreign currency breakdown be available. Therefore, the recent methodological shift caused no particularly profound changes in the data sources, processing procedures and products, as detailed information has generally already been at hand. The partner sector and currency breakdown of financial instruments are partly estimated. In the case of some instruments, currency breakdown is of no significance (financial derivatives, equity, insurance technical reserves) because the market price changes primarily affect the development of the stocks. However, in order to split the total financial wealth into domestic and foreign currency, the derivatives are classified into foreign currency instruments, while other indivisible instruments are arranged in categories according to the place of issue.

### **3. Integration of other financial statistics into financial accounts**

The most important data sources of financial accounts are the other financial statistics of the central bank such as balance of payment, monetary and securities statistics from which two third of data appearing in the financial accounts are derived. The commonly used sectorization, the harmonised instrument categories and the identical content of stocks and flow components, as well as the sufficient degree of details of data for financial accounts ensure that the data provided by partner statistics can be directly incorporated into the financial accounts. The financial accounts do not use the products of them but receive special data from the own processing system of other banking statistics. Basically, then, it has been succeeded with the development of other financial statistics and translation processes (mapping) that certain parts of the financial accounts are synthesized in the source systems and exhibited in the production.

Throughout the last comprehensive methodological review, a key point was to strengthen the consistency between financial statistics for instance, the presentation form of balance of payments has approached the structure and categories of national accounts. As a result of it, to retrieve suitable



content from balance of payments for national accounts including financial accounts is even easier. If the parity of content is completed between the categories of balance of payments and financial accounts (there are no valuation, coverage and methodological differences), not only the transfer of standard categories necessary for financial accounts becomes possible but those special balance of payment contents are reportable that might have contributed to a more detailed analysis of external financial relations of domestic sectors. Detailed country breakdown, currency breakdown and breakdown by type of investment become available, as well as cross-border consolidation of economic actors and tracing the ownership relations are also feasible.

Regarding balance of payments (and IIP), the reconciliation of instrument breakdown diverging from financial accounts and the more parsimonious sector breakdown caused the most serious problem that has been succeeded to overcome by introducing the instrument categories and sector breakdown of national accounts due explicitly to needs of financial accounts. The use of money and banking statistics data is not primarily hindered by the differing instrument and sector breakdown but rather valuation differences reflecting in statistical and accounting balance sheets. As a consequence, the balance sheets of financial institutions as a whole are not used in the financial accounts, merely, data pairable according to content and valuation are taken over. For instance, financial derivatives are built in the financial accounts from separate data collections, the data source of variety of debt securities and different equities is the securities statistics of the central bank. The other accounts receivable/payable data have been added to the statistics from miscellaneous data sources. Neither the recent methodological changeover has brought improvement in the field of harmonisation of monetary statistics and national accounts or approach similar to balance of payments is undetectable. The extant differences hamper the entire transition between data of the two statistical areas and opportunity is only partially provided to expand the information presented in the financial accounts from the monetary statistics. In our case, mainly breakdowns according to loan types (e.g. overdrafts, mortgage loans, student loans etc.) and more detailed maturity breakdowns are collected into the consistent system of the financial accounts, in addition more detailed currency breakdown of financial instruments are used.

The Central Bank of Hungary has excessively high-quality integrated security statistics that include stock and flow data on a variety of securities issued or held by residents in full issuer and holder sector breakdown. The securities statistics have been developed specifically for financial accounts data needs but meet fully the demands of balance of payments and partly of monetary statistics, as well. Since accounting and valuation principles of the financial accounts and security statistics are equivalent, data from processing system of securities statistics, essentially, without any transformation processes, additions or corrections are directly applied in the compilation system of the financial accounts. Moreover, because of the identical content, arbitrarily detailed data can be transferable along with the relationships between issuer and owner sectors. Exploitation of this vast gold mine of information is a future goal. In parallel, the security statistics are also the data source of property income related to the securities (interests, dividends, incomes from investment units).

#### **4. Use of individual level data for the details of financial accounts**

Individual company balance sheets (annual reports, tax returns, statistical data collections) are important data sources of the financial accounts. Practices across countries differ in the matter to what extent they rely on direct information from the given sectors during the compilation procedure of certain sector accounts. While sector level data of financial accounts are partly made of counterpart sector data or aggregated information of financial intermediaries, in the case of deeper disaggregated data requirements, it is rather more reasonable to place reliance on purely direct data sources (if they are available) because in many cases either partner data providers cannot be directed further nor more detailed information given by them are expected. The compilation of financial accounts for specific institutional groups, sub-sectors and industries is easier from corporate data collections if the statistics

for the whole sector are also produced fundamentally from individual corporate data sources because the transformation and accounting/statistical matching are respectively available that can be readily suited for smaller groups of corporations. If the accounts compiled for the whole sector from other, in part, indirect or aggregated data sources, the adjustment of aggregates structured from individual company data is to be solved.

A major result of the change of the methodology is that the separate compilation of public corporation accounts within the corporation sectors has been put a greater emphasis. Even though the presentation of the balance sheets and flow data of public corporations does not become mandatory under the new standards, in several countries, thus, in Hungary, the development and transmission of data with respect to the relevant methodological recommendations were encouraged. The number of public (directly or indirectly state and local government-owned) companies in Hungary is slightly more than 2,000 (5 percent of the total resident corporations). To compile annual financial accounts for this concentrated group of corporations is relatively easy from collected administrative or statistical data. In the absence of special statistical data resources, merely such specific financial instruments like financial derivatives, insurance technical reserves and investment fund units are unable to capture. The results show that public corporations within the corporate sector hold financial assets on average but incur above-average amount of liabilities consisting of high amount of capital and low level of debt. While, in the recent years, the corporate sector as a whole has had an increasing net lending to which public corporations unevenly contributed annually, the net lending of them has strongly fluctuated (depending on the amounts of state transfers).

Chart 2. Financial assets and liabilities of total and public non-financial corporations, HUF billion

Instruments	ESA code	S.11 total	S.11 public	Proportion, %
<b>Financial assets</b>	<b>AF.A</b>	<b>46 227,4</b>	<b>2 682,0</b>	<b>5,8</b>
Currency and deposits	AF.2	5 794,9	392,0	6,8
Debt securities	AF.3	293,8	34,0	11,6
Loans	AF.4	10 722,2	436,0	4,1
Equity and investment fund shares	AF.5	14 426,4	871,0	6,0
Insurance, pension and standardized guarantee	AF.6	127,5		
Financial derivatives	AF.7	52,9		
Other accounts receivable	AF.8	14 809,7	949,0	6,4
<b>Financial liabilities</b>	<b>AF.L</b>	<b>80 291,0</b>	<b>6 038,0</b>	<b>7,5</b>
Debt securities	AF.3	652,8	43,0	6,6
Loans	AF.4	26 354,9	1 207,0	4,6
Equity and investment fund shares	AF.5	39 239,2	3 751,0	9,6
Listed shares	AF.511	3 001,9	0,0	0,0
Non-listed shares	AF.512	13 582,3	3 413,2	25,1
Other equity	AF.519	22 655,0	337,8	1,5
Financial derivatives	AF.7	228,3		
Other accounts payable	AF.8	13 815,8	1 037,0	7,5

As a matter of fact, on annual basis, full direct balance sheet data for the companies are available that have unified level of detail and content regardless of size, legal status and sector. The aggregates of balance sheet data corrected on individual level and financial accounts data almost complement each other and regarding the non-financial corporations cover the wealth manifested in financial accounts with a few percent error. On the assets side, the coverage of financial instruments from corporate balance sheets is close to perfect (classification problems between instrument categories can be observed mainly among debt securities and special instruments are missing). On the liability side, in addition to the smaller classification problems, observable discrepancies arise predominantly from the different valuation of shares and equity. The appropriate consistency between the individual corporate balance sheets and financial accounts provides for the possibility not only the data of public corporations to be produced from individual balance sheets but any other sub-aggregates of groups of companies can be consistently determined with the financial accounts from corporate level database



(forming groups by ownership, sector or size). As regards the distribution of the instruments by company size, interesting experience, for example, that, unlike other instruments, the use of cash is highly concentrated in the smaller enterprises and, by contrast, the provision of loans is the feature of the larger companies.

Chart 3. Assets and liabilities of non-financial corporations in financial accounts and in aggregated annual reports, HUF billion (2013)

Instruments	ESA code	Financial accounts	Balance sheets	Difference, billion HUF	Difference, %
<b>Financial assets</b>	<b>AF.A</b>	<b>46 227,4</b>	<b>46 155,3</b>	<b>-72,1</b>	<b>-0,2</b>
Currency and deposits	AF.2	5 794,9	5 856,0	61,1	1,1
Debt securities	AF.3	293,8	511,8	218,0	74,2
Loans	AF.4	10 722,2	10 963,7	241,5	2,3
Equity and investment fund shares	AF.5	14 426,4	14 024,7	-401,7	-2,8
Insurance, pension and standardized guarantee	AF.6	127,5		-127,5	
Financial derivatives	AF.7	52,9		-52,9	
Other accounts receivable	AF.8	14 809,7	14 799,1	-10,6	-0,1
<b>Non-financial assets</b>			<b>39 490,4</b>	<b>39 490,4</b>	
<b>Financial liabilities</b>	<b>AF.L</b>	<b>80 291,0</b>	<b>82 585,6</b>	<b>2 294,6</b>	<b>2,9</b>
Debt securities	AF.3	652,8	740,3	87,5	13,4
Loans	AF.4	26 354,9	29 905,4	3 550,5	13,5
Equity and investment fund shares	AF.5	39 239,2	38 515,5	-723,7	-1,8
Financial derivatives	AF.7	228,3	0,0	-228,3	
Other accounts payable	AF.8	13 815,8	13 424,4	-391,4	-2,8
<b>Other (technical) liabilities</b>			<b>3 060,1</b>	<b>3 060,1</b>	

## 5. Possibilities and limitations of the improvement(s)

The building blocks of national accounts are the financial instruments and stock and flow data of them, as well as institutional units classified into sectors or industries separately dissociating the resident economic actors from non-resident ones. The linkage between the accounts and the symmetrical treatment of instruments ensure the possibility of compilation of the integrated statistics that has been put an increasing emphasis during the methodological development. However, an examination and analysis of the financial intermediary system often require the use of such indicators based on intersections of financial wealth that fundamentally differ from the financial accounts. Considering this data needs boundaries of the financial instruments are blurring and the monitored groups have become global. The risks to be measured cannot be linked to a single instrument and span across national borders. The question also arises of whether the value and the scope of financial wealth are suitable or sufficient with methodological developments for expanding use. If we want to assess the financial risks that are usually only detected by one party, the principle of mutuality can lose its importance, the symmetry of the financial accounts may be jeopardized.

The standardized framework of national accounts should be used to integrate the various data needs if the system of national accounts are able to fulfill the role of the common language and channel. The national accounts, the unity of integrated accounts, however, represents such value that is not worthwhile to disturb for the sake of collaboration with other systems or sets of data. Other data sources should therefore be involved in the analytical framework of national accounts with the use and holding of basic, common categories.