Report on quality, sources and methods used for
the compilation of financial account statistics
Hungary

This report is part of a set of initiatives undertaken by the European Statistical System (ESS) and the European System of Central Banks (ESCB) to enhance the quality monitoring of statistics underlying the Macroeconomic Imbalance Procedure (MIP), thus it is structured according to selected principles of the ESS Code of Practice (CoP) and the ESCB Public Commitment (PC).

A. INSTITUTIONAL ENVIRONMENT

A.1 CoP1 Professional independence / PC1 Professional independence

A.1.1 Legal basis

The independence of Magyar Nemzeti Bank (MNB) in exercising its powers is guaranteed by the Hungarian law (Act CXXXIX of 2013 on the Magyar Nemzeti Bank) and by EU primary law.

Act on Magyar Nemzeti Bank (Act CXXXIX of 2013), which is available on the MNB's website (https://www.mnb.hu/en/the-central-bank/legal-framework), establishes its independence from other government authorities: *„Pursuant to Articles 41 and 42 of the Fundamental Law, the Parliament hereby adopts the following Act on the Magyar Nemzeti Bank, its primary objectives, basic tasks, institutional, organisational, personal and financial independence and its operations, with a view to the definition of macro-prudential tasks and responsibilities, establishing the possibility for effective macro-prudential intervention, strengthening international macro-prudential cooperation and reinforcing supervision of and control over the system of financial intermediation."*

The independence of the MNB, in its capacity as a member of the ESCB, is further emphasized in Article 130 of the EU Treaty and Article 7 of the Statute of the ESCB and of the ECB, which stipulate that *"when exercising the powers and carrying out the tasks and duties conferred upon them…, neither the ECB nor a national central bank nor any member of their decision making bodies shall seek or take instructions from Community institutions or bodies, from any government of a Member State or from any other body. The Community institutions and bodies and governments of the Member States undertake to respect this principle and not to seek to influence the members of the decision making bodies of the ECB or of the national central banks in the performance of their tasks."*

A.1.2 Statistics work programme

Magyar Nemzeti Bank has a statistics work programme that includes the main projects and strategies, but is not made public. Parts of national statistics work programme relating to financial accounts are principally guided, at the European level, by the work programmes of both

(i) Eurostat - ESTAT Annual Work Programme 2015, under Detailed Objective [04.1] Macroeconomic accounts, Activity Code [438] which outlines the objective – "Quarterly and annual National Accounts: Compliance monitoring and quality: Annual assessment of Member States' compliance with the transmission legal requirements, accompanied by regular checks of transmitted data and irregular country visits."

http://ec.europa.eu/eurostat/web/ess/about-us/statistical-programmes

(ii) ECB – From a quarterly perspective the work programme for quarterly financial accounts is determined by the Working Group on Financial Accounts (WG FA) operating under a mandate from the ECB Statistics Committee (STC). This programme is reviewed and updated annually. For the ESCB Statistics work programme see http://www.ecb.europa.eu/stats/html/index.en.html

A.2   CoP2 Mandate for data collection/PC2 Mandate for data collection

A.2.1   Allocation of responsibilities

In the Hungarian system, allocation of responsibilities between statistical institutions is similar to the systems within the EU: information on the real economy mainly relies on data collected by the HCSO (Hungarian Central Statistical Office) and information on the financial system, financial operations and balance sheets come from the MNB data collection.

According to the legal framework, both the annual and quarterly financial accounts of all sectors are produced by the MNB using data sources prescribed and maintained by the Bank. The annual financial accounts are not segregated from the quarterly ones, they are included in the production and dissemination framework of the quarterly accounts (using the same data sources, compilation and estimation system).

A.2.2   Legal basis

Data collection, compilation and dissemination of financial accounts are governed by the terms and conditions of the Act on Magyar Nemzeti Bank (Act CXXXIX of 2013), the Act on Statistics (Act XLVI of 1993) and decrees of the governor of the MNB.

On specific statistical areas, where the MNB and HCSO have common interest in the data collection, compilation and publication, the relevant principles and objectives are defined in a framework of a formal cooperation agreement. The aim of this agreement is to harmonise the applied methodologies, the publication standards and the revision policies. The specific areas of the cooperation are determined in an annually updated work programme that contains the tasks, deadlines and responsible persons in both institutions. A separate cooperation agreement exists for the compilation of EDP Notification and the underlying government financial statistics. MNB is responsible for the financial accounts and Maastricht debt figures of general government which are produced in the financial accounts framework as well.

Moreover, the MNB, as part of the ESCB, is required to transmit quarterly financial account to the ECB, as stated in the Guideline ECB/2013/24. The annual financial accounts have to be compiled and transmitted also to Eurostat by the Member States according to the Regulation 549/2013 of the European Parliament and of the Council.

A.3   CoP6 Impartiality and objectivity / PC6 Impartiality and objectivity

A.3.1   Advance release calendar

The release calendar (http://www.mnb.hu/en/statistics/release-calendar-for-statistics) for all statistics published by MNB is updated for 12 months at the latest on 20 December each year, in practice at the end of November. The MNB prepares separate preliminary financial accounts for two sectors, the general government and households on a quarterly basis, with a time lag of one and a half months. The data dissemination on the preliminary financial accounts of the general government and households becomes outdated when the comprehensive financial account statistics covering all economic sectors are published one and a half months later, usually on the last day of the third month following the reference period.

A.3.2   Revision policy

Financial accounts as official statistics are published on a quarterly basis by the MNB. Annual financial accounts are derived from quarterly ones and appear in the quarterly publications. Annual flows are the sum of the four quarters and annual stocks are the amounts recorded at the end of the year.

Revision policy of financial accounts is strongly determined by the policy of the associative statistics (balance of payments statistics, monetary statistics, securities statistics, non-financial national accounts). Financial accounts are revised when there is a revision in the primary sources used to compile the financial accounts. Indeed, data of the current year and of the two calendar years preceding it may change any time when data reports are submitted due to data source changes and clarification of the contents of economic events, or corrections of their settlement. Main revisions occur in March and September in line with BoP and EDP compilation. Revision policy of financial accounts has been published in the framework of the methodological description. The amounts and reason of main changes are always explained in the financial accounts press releases issued by the MNB.

The MNB basically follows the revision policy advised by the CMFB.

B.   STATISTICAL PROCESSES

B.1   CoP7 Sound methodology / PC7 Sound methodology

B.1.1   General remarks

Hungary's financial accounts statistics are consistent with the methodology of the European system of national and regional accounts (ESA 2010). The first publication of financial accounts based on ESA 2010 took place at the end of June, 2014. Effects of methodological changeover on Hungarian financial accounts have been included in the whole length of time series back to 1990.

Methodological notes and other information on data sources, compilation practices and other related issues concerning financial accounts statistics are available on the MNB's website: http://www.mnb.hu/en/statistics/statistical-data-and-information/methodological-notes/methodological-notes-on-financial-accounts

A separate page is dedicated to the ESA 2010 changeover:

http://www.mnb.hu/en/statistics/methodological-changeover-2014-bpm6-esa2010/financial-accounts

B.1.2   Residency and territory

In the compilation of the financial accounts residency and territory are compliant with the definitions in ESA 2010.

In Hungary the number of special purpose entities (SPEs) is significant. They are resident enterprises that basically perform their activities abroad, and their connection with the domestic economy is negligible. SPEs are considered to be financial corporations. As a default, the published data of financial accounts do not include data pertaining to SPEs, because data without SPEs allow for a more informative analysis of the economic processes. In accordance with the methodological rules of international data supplies, and for the purpose of presenting the operation of SPEs, a separate set of the financial accounts containing the data of SPEs is published as well. The datasets shared with the international organisations (ECB, EUROSTAT, OECD, BIS, etc.) always contain the data of SPEs.

Foreign branches of resident units are always excluded from and resident branches of foreign units are always included in the statistics.

B.1.3   Institutional unit definition

In the compilation of the financial accounts the definition of institutional unit is compliant with the definitions in ESA 2010.

B.1.4   Sectorisation & sector delimitation

In the compilation of the financial accounts the sector definition and delimitation are compliant with the definitions in ESA 2010. The Hungarian financial accounts contain full sectoral breakdown. Sectorisation of resident units is carried out in cooperation with HCSO. Common registers are maintained and used for different statistics. Parts of the registers are published and shared with data suppliers in order to ensure a consistent and appropriate classification of their partners on monthly basis. The published monthly lists include corporations classified in financial sector except for corporations classified in S.127. The MNB and the HCSO jointly check the list of corporations classified in S.127 (SPEs and holding corporations) and these corporations are classified into captive financial institutions and money lenders (S.127) on the basis of own data reporting. The monthly lists also include corporations classified in central government, local government and non-profit institutions that are not NPISH (non-profit institutions serving households).

B.1.5   Instrument identification

In the compilation of the financial accounts the definitions of the financial instruments are compliant with the definitions in ESA 2010.

B.1.6   Valuation, including derivation of transactions and other flows

In general, flows and stocks are recorded at market value where it is required by the standards. However, as the essential source data are not always available, the principle of market valuation cannot always prevail in the compilation

of financial accounts. This problem arises primarily in the case of unquoted shares and other equities which are recorded at an adjusted book value of own funds in the absence of sufficient information related to market value. Nominal valuation as defined by ESA 2010 is used for positions in currency and deposits, loans and other accounts receivable/payable. Cash is presented at denomination value; deposits and loans are presented at nominal value increased with accrued interest; other accounts receivable/payable are mainly derived from the balance sheets of corporations and budgetary organisations so they are presented on gross book value.

The components of changes in stocks (transactions, revaluations and other changes in volume of assets) come from basically the statistics that are the main building blocks of financial accounts, i.e. security statistics (SEC), balance of payment statistics (BoP) and monetary and financial statistics (MFI, IF, OFI, IC, PF statistics in the data source map).

In the case of shares and other equities (AF.5) owned by residents, transactions are recorded when the capital of a corporation is increased, decreased or a corporation is founded or terminated. Also, transactions are recorded at owner's side when exchanges, sales and purchases of shares and other equities take place. These transactions are estimated from the changes in the amount or the sectoral breakdown of subscribed capital, and are valued at average prices in the given period. Concerning quoted shares and investment fund shares, calculation of transactions is based on monthly data. Concerning unquoted shares and other equities, calculation of transactions is based on annual data and completed with quarterly corrections. In the case of corporations owned by central or local governments the actual transaction data (cash payments) are used. In the case of foreign direct investments transactions also come from the recording of reinvested earnings.

Other changes in volume are recorded if an institutional unit is reclassified into another sector, an instrument is reclassified into another instrument category (for example unquoted shares become quoted shares) or an instrument is written off by a creditor. Changes in stocks arising from methodological changes basically appear in whole time series so these methodological changes do not cause other changes in volume of assets.

B.1.7   Time of recording (accrual accounting)

In practice, beside the accrued interests (which are recorded with the financial asset or liability on which they accrue) accrual accounting is applied for items relating to wages, taxes, social contributions, transfers, dividends and the provision of goods and services. If no payment is effected when the nonfinancial transaction occurs, it is recorded under other receivables/payables in the financial accounts. Adjustments based on the accrual method are made for all purchase/sale transactions when a financial instrument (typically a security) is traded in the secondary market and the payment is made at a different time from that of the transfer of ownership. In Hungarian financial accounts, other accounts payable/receivable are not residual items but they are observed or calculated using appropriate statistical data sources.

B.1.8   Coverage gaps

In Hungary, quarterly comprehensive financial accounts covering all financial instruments of all sectors of the national economy are published. However the financial account statistics rely on wide range of data sources, it occurs that no

direct or no sufficient (in regard to component, currency or sectoral breakdown, frequency, etc.) information is available. In such circumstance estimations ensure the completeness. Source data are supplemented with estimates in relation to cash holdings, loans, equity and other assets/liabilities. Despite the extensive scope of the utilised data and estimates, data pertaining to individual sectors with respect to cash holdings, loans, insurance technical reserves, financial derivatives and other accounts receivable/payable are not complete in the financial accounts. While intra-NFC loans are covered well enough, intra-household loans are not covered by the accounts. The stock of intra-household loans at the end of 2014 were about 2 percent of GDP according to HFCS (Household Finance and Consumption Survey). Data shortages basically do not affect the usability of the statistics.

B.1.9 Non-consolidation/consolidation at sectoral level - As required under the ESA 2010 Transmission programme (Tables 6 and 7)

The financial accounts statistics are basically compiled on a non-consolidated basis, our database stores non-consolidated time series including a complete counterpart sector breakdown of all instruments, stocks and flows. Thus, the data processing and reporting system enables to represent data in a consolidated manner, as well. The MNB simultaneously publishes consolidated and non-consolidated datasets.

In Hungarian financial accounts, intra-sectoral consolidation is defined within the non-financial and financial corporations, the general government and the households. Non-consolidated figures always contain the inter-company positions within the company groups. Data of non-profit institutions serving households are always consolidated (even in non-consolidated tables), because the accounts of this sector are generated exclusively from external data sources (partner data), and thus the relationships within the sector are not known. The rest of the world and the central bank (MNB) sectors are inherently consolidated, as well.

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Table 6 and 7 transmitted to the Eurostat are fully consistent with Regulation 549/2013 both in terms of requested series (non-consolidated/consolidated) and their corresponding time coverage (from 1995 onwards).

B.1.10 Specific issues for instruments covered by private sector debt and credit flow (MIP indicators)

With respect of private sector debt and private sector credit flow, the most important estimates are related to the loans granted and received by households against non-financial corporations and rest of the world. The former stocks and the related flows are calculated based on the annual reports and corporate tax returns of non-financial corporations on individual basis. The latter ones are estimated with utilization of monetary statistics of foreign national banks. Intra-household loans are not covered by financial accounts for the time being.

Data on liabilities of financial sector (S.12) basically come from data collections, instruments are covered well, estimations are not used. On the other hand, these data include liabilities of special purpose entities (SPEs) as well. These liabilities are not linked to the domestic economy and may change significantly from time to time.

B.1.11 Other major deviations not listed above

There are no other major deviations not listed above.

B.2   CoP8 Appropriate Statistical procedures / PC8 Appropriate Statistical procedures

B.2.1 Data source map

The table below describes the map of the primary data in a very simplified manner. As the Hungarian financial accounts are built up on a who-to-whom basis, the counterpart data of a given sector can originate from several different data sources. Where the number of data sources is more than three, the main three sources achieving the biggest coverage are indicated in the table.

B.2.2 Description of procedures and methods

Financial accounts statistics are compiled in an efficient and tailor-made IT system which has been in use since June 2014. The system ensures auditability (controlled, documented and traceable processes) and complete internal consistency. The system is used not only for compilation but also for reporting purposes.

The compilation process begins with the collection of the required data from different data sources. Hungarian financial accounts statistics rely on over 50 data sources, approximately ten of which are linked to data originating from other statistics of the MNB, while the remaining external data are collected from financial or non-financial corporations or government units. A data source hierarchy is established to determine which data are utilised for the purposes of financial accounts when more data sources are available. Only the most reliable data can be flagged as primary data. The data source hierarchy ensuring the internal consistency is as follows:

1. Security statistics (stocks and flows)
2. Balance of payment statistics (stocks and flows)
3. Balance sheets of monetary financial institutions (stocks and flows)
4. Balance sheets of non-monetary financial institutions (stocks and supplementary data)
5. General government data (stocks, transactions on cash basis and supplementary data)
6. Balance sheets of non-financial corporations (stocks and supplementary data)
7. Other information (balance sheets of non-profit institutions, other supplementary data)

The IT system has a reporting module with a direct connection to the statistical database. Every product of financial accounts statistics published by the MNB derives directly from the system. The products can be prepared in Excel and XML format as well. In the system there is automatic GDP proportioning time series by time series so the products can show data also in percent of the GDP.

B.2.3 Estimation of missing data

If no timely, no sufficient or no direct information is available, estimations ensure the completeness. Taking into consideration the number of elementary time series, approximately 6 percent of them contain estimation. Most of these estimations are permanent and computed by built-in mathematical formulas (e.g. in case of sectoral or currency breakdowns). Only a smaller part is calculated directly by the statisticians. They can be classified into three groups. Due to uncertainties related to general government sector balance sheet data, the balance sheet data are not used directly,

but served as a basis of expert estimates in calculating certain assets and liabilities of the general government sector (e.g. in case of loans granted, trade credits). Some data sources (e.g. corporate tax returns and annual reports) are only available on an annual basis with a nine-month time lag. The missing latest observations are replaced with estimations based on previous data (e.g. in case of inter-company equity, loans and trade credits). At last but not at least, data on some financial assets of the households and NPISHs contain estimates because of lack of direct data sources (e.g. foreign loans and equity).

The frequency of collected and estimated data differs from each other, the unification of different frequencies is automatically performed by the IT system.

B.2.4 Balancing procedures (horizontal and vertical)

To ensure the complete internal horizontal consistencies between stocks and flows, in case of every instrument-debtor sector-creditor sector combinations, every stock and every necessary flow components except one are defined from a given data source or estimation. As the last action of the compilation process, the remaining one is mechanically calculated by the IT system, as a residual amount. The transactions are calculated on residual basis out of the flow components most frequently, however, if there are data collected on transactions or it is practical to estimate the transactions directly, then revaluations are calculated on residual basis.

After all, a complete, horizontally consistent and quarterly database is established in which there is no need to set up a balancing procedure.

Concerning vertical consistency see point C.4.1.

B.2.5 Methods to align quarterly and annual data

The annual datasets are automatically produced from the same database as quarterly accounts. For transactions, revaluations and other changes in volume the annual data is the sum of the four quarters. For outstanding amounts, the end-of-year stocks in the annual accounts are equal to the stocks at the end of the fourth quarter.

Map of main data sources

Country:	Hungary
Name of institution:	Magyar Nemzeti Bank
Year:	2017

		Assets									Liabilities								
		S11 NFCs	S12K MFIs	S124 IFs	S12O OFIs	S128 IC	S129 PF	S13 Gov	S14+S15 HH+NPISH	S2 RoW	S11 NFCs	S12K MFIs	S124 IFs	S12O OFIs	S128 IC	S129 PF	S13 Gov	S14+S15 HH+NPISHs	S2 RoW
F11	Monetary gold		BoP																
F12	SDRs		BoP							BoP		BoP							BoP
F21	Currency	NFC, BoP	MFI, BoP		OFI, BoP	IC	PF	GG	**, BoP			MFI, NFC, BoP							BoP
F22	Deposits, transferable	MFI, BoP	MFI, BoP	MFI, BoP	MFI, BoP	MFI, BoP	MFI	MFI, GG, BoP	MFI, GG, BoP	BoP		MFI, BoP					GG, OFI		BoP
F29	Deposits, other	MFI, BoP	MFI, BoP	MFI, BoP	MFI, BoP	MFI, BoP	MFI	MFI, BoP	MFI, BoP	BoP		MFI, BoP							BoP
F3	Debt securities	SEC, (BoP)	SEC, (BoP)	SEC, (BoP)	SEC, (BoP)	SEC, (BoP)	SEC, (BoP)	SEC, (BoP)	SEC, (BoP)	BoP, (SEC)	SEC, (BoP)	SEC, (BoP)		SEC, (BoP)	SEC, (BoP)		SEC, (BoP)		BoP, (SEC)
F4	Loans	NFC, BoP, OFI	MFI, BoP		OFI, MFI, BoP	IC, BoP	PF	GG, MFI, BoP	NFC, MFI, OFI	BoP	NFC, BoP, MFI	MFI, BoP	MFI, BoP	MFI, BoP, OFI	MFI, BoP		MFI, BoP, OFI	MFI, OFI, BoP	BoP
F511	Listed shares	SEC, BoP	SEC, BoP	SEC, BoP	SEC, BoP	SEC, BoP	SEC, BoP	SEC, BoP	SEC, BoP	BoP	SEC, BoP	SEC, BoP		SEC, BoP	SEC, BoP				BoP
F512	Unlisted shares	NFC, BoP	MFI, BoP		OFI, NFC, BoP	IC, BoP		NFC, GG, BoP	NFC	BoP, (MFI,NFC)	NFC, MFI, BoP	MFI, BoP, NFC			MFI, BoP, NFC	BoP, IC, NFC			BoP
F519	Other equity	NFC, BoP	MFI, NFC, BoP		OFI, NFC, BoP	IC		NFC, GG, BoP	NFC	BoP	BoP, NFC, MFI	MFI, NFC, BoP		MFI, NFC	IC	PF			BoP
F52	Investment fund shares/units	SEC, (BoP)	SEC, (BoP)	SEC, (BoP)	SEC, (BoP)	SEC, (BoP)	SEC, (BoP)	SEC, (BoP)	SEC, (BoP)	BoP, (SEC)		SEC	SEC						BoP
F61	Non-life insurance techn. res.	IC				BoP		IC	IC	BoP					IC, BoP				BoP
F62	Life insurance and annuities								IC						IC				
F63-F65	Pension entitlements								PF							PF			
F66	Standardised guarantees		GG														GG		
F7	Financial derivatives	BoP, MFI	BoP, MFI	IF, BoP	BoP, MFI	IC, BoP	PF	MFI, BoP	MFI	BoP	BoP, MFI	BoP, MFI, IF	IF, BoP	BoP, MFI	IC, BoP		MFI, BoP	MFI	BoP
F81	Trade credits and advances	NFC, GG, BoP	MFI, BoP	MFI, IF	OFI, NFC, BoP	MFI, BoP	PF	GG, NFC, BoP	MFI, OFI, BoP	BoP	NFC, BoP, GG	MFI, BoP	MFI, IF	NFC, MFI, BoP	IC, MFI, BoP	PF	GG, BoP	NFC, MFI	BoP
F89	Other accounts excl. F81	NFC, OFI, BoP	MFI, BoP	IF	OFI, MFI, BoP	IC, BoP	PF	GG, BoP	GG, BoP, IC	BoP	NFC, OFI, BoP	MFI, BoP	IF	OFI, NFC, BoP	IC, MFI, BoP	0	GG, BoP	GG, NFC, IC	BoP

Key for data sources and calculation/estimations:

NFC   All corporations balance sheets and supplementary data
GG   General government data sources
MFI   MFI balance sheets and supplementary data
IF   Investment fund balance sheets and supplementary data
OFI   Other financial institutions balance sheets and supplementary data
IC   Insurance corporations balance sheeets and supplementary data
PF   Pension fund statistics/balance sheets
BoP   Balance of payments and international investment position.
SEC   Securities statistics (comprehensive)
0   known to be zero (e.g. if concept does not exist)
**   Pure residual calculation as no source data for a meaningful plausibility check is available.

Other explanations in particular concerning other sources and estimates:
NFC refers to corporate balance sheets and profit and loss accounts for all resident companies (financial and non-financial) on individual basis, annual.
GG refers to general government data sources since QFAGG is an output and not an input of financial accounts.
SEC refers to the comprehensive securities statistics of MNB covering and integrating issuer, holder and custodian information and registers.
MFI, IF, OFI and IC refer to data sources and internal products (for financial accounts) of these statistics.
Most cells contain information from more than 3 data sources. Survey data on non-profit institutions or data on specific instruments are additional sources as well.

C.   STATISTICAL OUTPUT

C.1   CoP11 Relevance / PC11 Relevance

At (i) international level financial accounts statistics are part of the 'Special Data Dissemination Standard Plus' of the IMF and are used for IMF 'Article IV consultations' of the EU Member States. Publication of Hungarian financial accounts currently fulfils the requirements (in respect of coverage, breakdowns, frequency and timeliness) of SDDS Plus. In addition to this, the MNB has published separately the datasets required by SDDS Plus since 2016.

In (ii) the EU, they are part of the 'scoreboard' of the macroeconomic imbalances procedure (MIP), and support the assessment of vulnerabilities and interconnectedness for financial stability purposes by the European Systemic Risk Board (ESRB, see its 'risk dashboard').

At (iii.) national level financial accounts statistics have an essential role in economic and financial analysis since quarterly non-financial accounts are not available for households and corporations and annual accounts are available only with 9 months time-lag. The publication of financial accounts statistics always excites considerable interest of the national economic media. In particularly the consolidated gross debt of the general government is followed with attention.

Financial accounts statistics are utilized extensively by the other directorates of the MNB for performing various analysis, economic research and making regular (e.g. Financial Stability Report, Inflation Report, Public Finance Report, etc.) and occasional publications. Therefore, direct access to the financial accounts database is granted to the members of the various directorates. Beside the financing and gross debt data of the general government, analysts pay attention to non-financial companies and households (especially to their loans borrowed).

In the case of non-financial companies and households, the financial accounts statistics is almost the single source which describes comprehensively their financial wealth and its formation. For this reason financial institutions use data of financial accounts statistics for determining their market positions and becoming acquainted with the structure of the liabilities of non-financial corporations and households with respect to instrumental and sectoral breakdown.

C.2   CoP12 Accuracy and reliability / PC12 Accuracy and reliability (including stability)

C.2.1   Accuracy and reliability

The financial accounts statistics have several data sources, thus the accuracy, reliability and stability of the financial accounts depend highly on them. Data arriving from other statistics are always checked twice. Figures are examined by the co-statisticians and the colleagues of financial accounts department, as well.

On the second stage, data are checked quarterly during and after every production cycle regarding quality and plausibility by the compilers. The compilation system ensures several inspection methods and procedures for the compilers, such as discrepancy reports between the datasets of the different production cycles, comparison possibility of different data sources, time series analysis, etc. Plausibility of net lending/net borrowing and net financial worth of all sectors and subsectors are examined. Data on investment and financing of different sectors are cross-checked with real economic processes. Balance sheets compiled in the framework of financial accounts are regularly cross-checked with

business accounting balance sheets of the relevant sectors (taking into account the methodological differences). Detailed revision analysis serves the detection of sources and reasons of changes in past figures.

Data revisions due to changes in primary data sources are explicitly presented in the quarterly published press releases and explained if it is considered necessary.

No quantitative revisions' indicator (e.g. MAPE, MACE or RMSRE) is calculated at the national level.

C.2.2   Internal consistency

Within financial accounts there are no statistical discrepancies. The internal consistency is ensured by the construction of the compilation process.

Firstly, financial accounts are compiled on a detailed instrument by instrument basis broken down by counterpart sectors (who-to-whom approach). This means that financial accounts are prepared in such a manner that for all instruments, the same data are recorded under the liabilities of the debtor sector as under the financial assets of the creditor sector. The data sources are chosen according to the hierarchy of sources established by the statisticians. This method ensures that the methodological rule regarding correspondence between financial assets and liabilities is satisfied in practice across the national economy.

Secondly, the opening and closing stocks of financial instruments and the components of changes in stock are determined in a systematic way. In case of every instrument-debtor sector-creditor sector combinations, every stock and every necessary flow component except one are defined from a given data source. The remaining one is automatically calculated by the compilation system, as a residual amount.

Thirdly, the quarterly and annual data are produced from the same (quarterly) database. For transactions, revaluations and other changes in volume the annual data is the sum of the four quarters. For outstanding amounts, the end-of-year stocks in the annual accounts are equal to the stocks at the end of the fourth quarter.

C.3   *CoP13 Timeliness and punctuality / PC13 Timeliness (including punctuality)*

C.3.1   National requirements

Preliminary financial accounts for two sectors, the general government and households should be published with a time lag of one and a half months. The comprehensive financial accounts statistics covering all economic sectors should be released one and a half months later, usually on the last day of the third month following the reference period. Annual national accounts of Hungary are published by HCSO in every September. Beside non-financial accounts, this release contains annual integrated economic accounts (including financial accounts), as well.

C.3.2   International requirements

In the EU, the ESA 2010 transmission program requires reporting of annual data at t+9 months. The quarterly data requirements of the ECB are t+85 days (supplementary data for the compilation of the euro area aggregates only) and t+100 days (national data, for publication by the ECB from t+107).

For the IMF, quarterly financial accounts are required at t+4 months in SDDS Plus.

C.4   CoP14 Coherence and comparability / PC14 Consistency and comparability

C.4.1   External consistency

In Hungary, two institutions are responsible for the compilation of national accounts: non-financial accounts are pre-pared by the HCSO, and financial accounts are prepared by the MNB. In practice, errors of statistical observation lead to differences between the net lending/borrowing indicators calculated from the perspective of non-financial accounts and financial accounts. There is no adjustment for eliminating the statistical discrepancies; differences are not incor-porated in any rows in the financial or non-financial accounts.

The HCSO annually publishes comprehensive national accounts of Hungary, allowing a comparison of net lending/bor-rowing indicators calculated from bottom to top and vice-versa broken down by sectors. The size of the differences indicates that the annual accounts of the general government sector are relatively well harmonised, while the discrep-ancies should be continuously monitored for all other sectors (except for non-profit institutions serving households where the difference between the balances and the sector itself are negligible from an economic perspective). To facilitate the harmonisation of national accounts, the HCSO and the MNB have regular consultations. Until now all methodological recommendations of international organisations have been taken into considerations.

The MNB compiles monthly, quarterly and annual BoP data, while IIP publications are available quarterly and annually. As a result of coherently harmonisation of the two statistics, after 2013 there are no substantive differences. The discrepancies before 2013 can be explained with two main reasons. On the one hand, the BoP and IIP statistics were not retrospectively revised before 1995 due to methodological changeover took place in 2014. On the other hand, in few cases the financial accounts use other data source rather than BoP and IIP statistics until 2013 (e.g. in case of the insurance technical reserve of insurance companies). Discrepancies after 2013 can occur only due to the different publication order of the two statistics. These temporary differences disappear in a short time. The differences between financial accounts statistics and balance of payments statistics with explanatory notes are published on a quarterly basis: http://www.mnb.hu/en/statistics/statistical-data-and-information/statistical-time-series/xii-financial-ac-counts-financial-assets-and-liabilities-of-institutional-sectors/other-data-relating-to-financial-accounts/differences-between-financial-accounts-statistics-and-balance-of-payments-statistics

Monetary balance sheet statistics are also important sources for the financial accounts. Since they are prepared for different purposes, with different frequency and according to different, only partially harmonised, methodological guidelines, there are differences in their data sources, valuation principles, the content and classification of the indi-vidual instruments, and also in the treatment of certain economic events. The differences between financial accounts statistics and monetary balance sheet statistics with explanatory notes are published on a quarterly basis: http://www.mnb.hu/en/statistics/statistical-data-and-information/statistical-time-series/xii-financial-accounts-fi-nancial-assets-and-liabilities-of-institutional-sectors/other-data-relating-to-financial-accounts/differences-between-financial-accounts-statistics-and-monetary-balance-sheet-statistics

The comprehensive underlinesecurities statistics of the MNB were expressly prepared for the purpose of supporting financial accounts and satisfying their data requirements. Accordingly, with respect to securities data, the securities statistics are fundamentally consistent with information contained in the financial accounts. Only minor differences can be encountered where the primary data source of the financial accounts statistics differs from securities statistics (e.g. transactions of foreign direct capital investments, transactions of shares and other equity of general government).

C.4.2   Time and back data consistency

Consistent time series are made available to the users as far backwards as possible. Back data under ESA2010 methodology are available from the reference period 1989Q4 onwards.

C.4.3   Consistency across frequencies

Consistency across quarterly and annual data is ensured. The quarterly and annual data are produced from the same database. For transactions, revaluations and other changes in volume the annual data is the sum of the four quarters. For outstanding amounts, the end-of-year stocks in the annual accounts are equal to the stocks at the end of the fourth quarter.

C.5   CoP15 Accessibility and clarity / PC15 Accessibility and clarity

C.5.1   Data

National:

MNB separately publishes preliminary quarterly data on the financial worth and financial savings of the general government and the households sector in the form of textual analysis and data tables before the standard publication of the quarterly financial accounts for every sector of the economy. The preliminary data with the press release are published one and half months after the end of the reference period. While press releases remain always accessible, data are available until the publication of full set of financial accounts.

Releases on preliminary financial accounts for general government and households can be found here:
http://www.mnb.hu/en/statistics/statistical-data-and-information/statistical-releases-and-notes/preliminary-financial-accounts-of-general-government-and-households

Preliminary data can be found here (until the publication of comprehensive financial accounts):
http://www.mnb.hu/en/statistics/statistical-data-and-information/statistical-time-series/xii-financial-accounts-financial-assets-and-liabilities-of-institutional-sectors/preliminary-financial-accounts-of-general-government-and-households

The quarterly financial accounts for every sector of the economy are published with three months time lag after the reference period.

Press releases on comprehensive financial accounts for every sector can be found here:
http://www.mnb.hu/en/statistics/statistical-data-and-information/statistical-releases-and-notes/financial-accounts-for-every-sector

Comprehensive data can be found here:

http://www.mnb.hu/en/statistics/statistical-data-and-information/statistical-time-series/xii-financial-accounts-financial-assets-and-liabilities-of-institutional-sectors/full-set-of-financial-accounts-including-all-sectors

There can be differences between the preliminary and comprehensive publication because of the availability of the new pieces of information in the meantime, therefore in the case of households and general government it is always practical to use the latest data.

Additionally, other data relating to financial accounts are also published. They contain key financial data of state and local government owned non-financial large enterprises, the differences between financial accounts statistics and balance of payments statistics, the differences between financial accounts statistics and monetary balance sheet statistics and the annual financial accounts of public corporations.

Other data can be found here:

http://www.mnb.hu/en/statistics/statistical-data-and-information/statistical-time-series/xii-financial-accounts-financial-assets-and-liabilities-of-institutional-sectors/other-data-relating-to-financial-accounts

Annual national accounts of Hungary including the figures of annual financial accounts compiled by MNB can be found here: http://www.ksh.hu/apps/shop.lista?p_session_id=961577643804760&p_lang=EN&p_temakor_kod=QP

ECB: http://sdw.ecb.europa.eu/reports.do?node=1000002779

Eurostat: http://ec.europa.eu/eurostat/data/database

OECD: http://stats.oecd.org/Index.aspx?DataSetCode=FIN_IND_FBS#

C.5.2   Metadata

A guide to Hungary's financial accounts statistics can be found on the MNB's homepage: http://www.mnb.hu/letoltes/eligazito-en.pdf

Moreover, as mentioned previously in *B.1.1 General remarks*, explanatory notes on methodology for the compilation of financial accounts statistics are provided on the MNB's website and on a separate page dedicated to the ESA 2010 changeover in 2014.

C.5.3 Contact

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