Finnish report providing information on quality, sources and methods, together with information on the statistical processes used for the compilation of the statistics underlying the MIP indicators (financial accounts)

A.1.1. Legal basis

The Finnish Statistics Act (280/2004) (http://tilastokeskus.fi/meta/lait/tilastolaki_en.html) is a general act of state applying to all official statistics. According to the act Statistics Finland is the general statistical authority within the National Statistical Service.

Council Regulation (EC) No. 322/97 on European community statistics must be applied to statistics that are compiled in accordance with the Statistical Programme of the European Union. The central principles of the Finnish Statistics Act and those of the Council Regulation on community statistics are in line with each other.

The abovementioned legal documents emphasize and lay the foundation for the independence, integrity and accountability of Statistics Finland.

A.1.2 Statistics work programme

The Statistics Finland's operating principles home page at http://www.stat.fi/org/periaatteet/index_en.html list and provide further links to several guiding principles for all statistical production that takes place at Statistics Finland.

Statistics Finland is responsible for the production of both annual and quarterly financial accounts.

The statistics work programmes at Statistics Finland are principally guided by the corresponding work programmes of both Eurostat (see http://ec.europa.eu/eurostat/web/ess/-/the-european-statistics-annual-work-programme-20-1) and the ECB (see https://www.ecb.europa.eu/stats/pdf/2017escbstatisticsworkprogramme.en.pdf).

A.2.1 Allocation of responsibilities:

Statistics Finland is responsible for the production and dissemination of both the annual and the quarterly financial accounts.

A.2.2 Legal basis:

The Finnish Statistics Act (280/2004) (http://tilastokeskus.fi/meta/lait/tilastolaki_en.html) determines the task of the National Statistical Service. The act places Statistics Finland as the general authority within the National Statistical Service.

The Bank of Finland and Statistics Finland have on the 14th of September 2009 made an agreement on the responsibilities of quarterly financial accounts production and dissemination in Finland. According to the agreement Statistics Finland is responsible for the production and dissemination of quarterly financial accounts in accordance with the ECB MUFA Guideline (ECB/2013/24) in Finland since the beginning of 2011.

The agreement also stipulates that the Bank of Finland and Statistics Finland cooperate in guaranteeing the quality and further development of quarterly financial accounts in Finland.

The compilation and transmission of annual financial accounts according to the Regulation 549/2013 of the European Parliament and of the Council have also previously been and continue to be the responsibility of Statistics Finland.

A.3.1 Advance release calendar:

There is an annual advance release calendar at Statistics Finland where all statistical publications due in the particular year are listed (http://tilastokeskus.fi/ajk/julkistamiskalenteri/index en.html#?langs=en).

A.3.2 Revision policy:

Currently, there is no predetermined revision policy for financial accounts. The accounts are usually revised when there are revisions in the utilized source data. Therefore the revision policy advised by the CMFB is not applied. The compilation system for both annual and quarterly financial accounts is an integrated one. Therefore annual and quarterly data are revised in unison. Revisions take place every quarter. The largest revisions take usually place in June when annual data become available. Also revisions in source data result in further revisions. Revisions usually cover a period of about two to three latest years. In order to attain consistency between the Balance of Payments and the Financial Accounts the revisions between these two statistics are targeted to be carried out simultaneously and for the same time periods. As a part of a longer term plan towards a common revision policy for financial and other national accounts as well as Balance of Payments also Financial Accounts will participate in the next benchmark revision of national accounts that takes place in September 2019.

There is a quarterly published revision table available on the financial accounts web pages at http://www.tilastokeskus.fi/til/rtp/rev_en.html where the magnitude of quarterly revisions can be analyzed.

B.1.1 General remarks:

The Finnish financial accounts abide by the European legal framework (ESA 2010).

The national documentation on ESA 2010 implementation can be found on the Statistics Finland website at http://www.stat.fi/til/ekt2010_en.html. The Statistics Finland financial accounts home page contains links to the methodological aspects of data compilation at http://www.stat.fi/til/rtp/index_en.html. Part of this information is only available in Finnish at http://www.stat.fi/til/rtp/index_en.html.

B.1.2 Residency and territory;

The application of residence and territory principles are compliant with the definitions of ESA 2010.

B.1.3 Institutional unit definition;

The definition of institutional units is considered in general to be compliant with ESA 2010 standards.

B.1.4 Sectorisation and sector delimitation;

The sector classifications and delimitations are compliant with the definitions of ESA 2010. The sector breakdown used in the compilation process is somewhat more detailed than what the international reporting requirements demand. The end results are aggregated to the stipulated level.

A comprehensive business register is used as the basis for sector allocation. In principle this means that data collection and compilation results are based on a uniform sector classification. This classification is used for both financial and non-financial accounts which e.g. reduces the likeliness for vertical discrepancies.

Whether a non-financial company is regarded to be a market or non-market participant is determined by a corresponding test. The list depicting non-market entities

(see http://tilastokeskus.fi/meta/luokitukset/_linkki/julkisyhteisot.html) is updated accordingly and utilized in the compilation of financial accounts.

B.1.5 Instrument identification;

The instrument identification is compliant with the definitions of ESA 2010. The instrument breakdown used in the compilation process is somewhat more detailed than what the international reporting requirements demand. The end results are aggregated to the stipulated level.

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

The valuation is based on market prices in most of the instruments. Nominal value is used for currency, deposits and loans. Book value is used for other accounts receivable as well as for unlisted shares where the book value is based on the value of own funds.

Many data sources include the information on other changes in volume. These are separate from actual transactions and when available result in depicting the correct picture of the individual changes in the level of stocks. The calculation of holding gains and losses is an inherent element of the compilation system and is calculated as a residual. By definition transactions, other changes in volume and holding gains or losses equal the change in stocks. However, not all data sources include the information on other changes in volume. This can result in incorrect holding gains and losses. Additionally, for some instruments, such as unlisted shares, there are cases in the who-to-whom matrix where data on transactions or other flows are not available. These cases are potential sources for vertical discrepancies.

B.1.7 Time of recording (accrual accounting);

Data are compiled on an accruals basis. Interest accrued are recorded with the financial asset or liability.

B.1.8 Coverage gaps;

The production of all data takes place on a who-to-whom basis. This can result in data gaps in certain instrument and sector combinations. These items can be found mostly in the instruments F512, F81 and F89. E.g. the data sources do not cover all non-listed share transactions. In addition, the sources for especially the household and the OFI sectors are not always complete either. Counterparty data can be used to an extent to alleviate these gaps. In some cases residual calculation as well as estimates are needed.

Even though most of the data sources are quarterly the availability of only annual data sources such as the business register results in the lack of quarterly data in certain cases. Even though the Finnish business register is very comprehensive and enriched in nature with detailed corporation level information on e.g. balance sheet data the lack of quarterly elements can result in the need for additional calculations. This is the case e.g. of intra-NFC debt. In addition to affecting the who-to-whom matrix also the calculation of sector totals is influenced in these and other similar cases. Here estimation or residual methods are used to replace missing data.

Also coverage gaps related to the different financial accounts data sources can similarly be reflected in the outcome. This is the case in e.g. non-ISIN securities. However, the use of alternative sources, sector totals, estimations as well as balancing methods are in place in the compilation process to alleviate these shortcomings to a degree.

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

The compilation of financial accounts on a complete who-to-whom basis makes it possible to produce both consolidated and non-consolidated data. Tables 6 and 7 are fully consistent with the requirements of the ESA 2010 Transmission programme.

B.1.10 Specific issues for instruments covered by MIP indicators

Private sector debt and private sector credit flow:

The calculation of private sector debt is partly affected by the time lag of actual balance sheet data for non-financial corporations (NFC). Before any actual data are available at t+6 months after the end of year intra-company loan levels are based on an estimate. The use of annual data results in producing quarterly data that does not always necessarily reflect the actual situation. In addition to intra-NFC loans also the level of unlisted shares is based on estimates to an extent.

The Finnish business register which is based on detailed actual corporate level data is by definition open for changes during the year when source data are updated. The first version of the business register is available at t+6 months but depending on its source data quality and the level of preparedness later updates can result in changes in e.g. the level of especially intra-NFC loans and unlisted shares.

A large share of NFC loans consists of intra-company or other intra-group items. These can be found in domestic intra-NFC as well as in intra-group entries vis-à-vis the RoW. Therefore domestic intra-NFC consolidation that takes place in the MIP framework is able to capture only a part of intra-group items. Foreign direct investment data from the Balance of Payments could be used to shed more light on intra-group elements.

Financial sector liabilities:

Only a small amount of financial sector liabilities is covered by annual data. The sources are predominantly quarterly. The greatest shortcomings are in the OFI sectors where e.g. annual business register data has to be utilized in certain who-to-whom cases. The share of these items (such as F512) is, however, extremely small in comparison to that of the other financial sectors.

Financial sector leverage:

The main shortcomings can be found again in the OFI sector and especially in unlisted shares and other equity. A part of the who-to-whom items are based on annual data or estimates. Also the reliability of the business register to rightfully and completely depict the OFI sector can be interpreted to be challenging. The source data for other financial sectors are quarterly and well established, proven sources.

B.1.11 Other major deviations not listed above.

There are no other major issues not listed above.

B.2.1 Data source map

See the separate table at the end of the report.

B.2.2 Description of procedures and methods

The compilation system for both the annual and the quarterly financial accounts is the same. The production of all data takes place on a whoto-whom basis. Also QFAGG and EDP debt are calculated in the same system. Most of the data are on a quarterly basis. In order to be included into the system annual data are divided to quarters in a linear manner. In cases where only annual data are available estimations for the latest quarters are used before annual data for the whole year becomes available. In these cases also residuals and estimations based on the latest actual annual data are more prevalently used. This procedure is particularly the case in instruments F512, F81 and F89.

Many of the items compiled have multiple sources. On an instrument by instrument and sector by sector basis the most reliable sources are identified. The utilized source depends on the particular instrument, sector and counter sector. For the sake of consistency and credibility these sources are adhered to in the compilation process round after another. Only in cases of evident source data problems, other similar issues or new data sources can be changed. In these cases also time series data are usually corrected and relevant other volume changes are carried out.

In the compilation process also the other possible sources are visible to the compilers. A central element of the compilation process is the production of balancing measures which are carried out in order to produce a credible, consistent and coherent whole. Balancing measures usually involve sectors S11, S122, S14 and S2 where also the stock levels are the largest. In some cases where there are no actual sources these items are acquired utilizing counter sector information, residual methods or estimations. Balancing is based on sector totals in cases where reliable sources are available.

More information on the Finnish financial accounts compilation and sources can be found at http://tilastokeskus.fi/til/rtp/index_en.html. Part of the information is only available in Finnish at http://tilastokeskus.fi/til/rtp/index_en.html.

B.2.3 Estimation of missing data

A complete who-to-whom data structure can be a challenging task to fulfil. Certain relatively few items are without a source. These items can be found especially in instruments F81 and F89 and the household sector for which there is less data available. In these cases e.g. estimates based on historical data, expert evaluation or residual calculations based on sector totals are carried out. Data from annual data sources, such as business register data, are habitually divided in a linear manner to quarters. Exceptions to this rule can take place based on expert evaluations as well as for reasons to reduce vertical differences. When annual sources of data are used data for the latest quarters are either estimated or stocks are left at the level of the latest actual annual manifestation until data for the particular period are available. This is the case e.g. in inter-company loans, unlisted shares and other equity. Later on, this results in revisions to the data over several quarters.

B.2.4 Balancing procedures (horizontal and vertical)

Horizontal balancing is carried out by a predetermined set of priorities and estimated reliability of data sources. Precedence in balancing is either on the liability or the asset side by a case-by-case evaluation of credibility and reliability that is consistently followed over time. Additionally, the visibility of all possible sources during the compilation process makes it possible for a compiler to pay attention to a credible and consistent outcome also from a horizontal perspective.

Vertical balancing takes place during the compilation process at a sector-by-sector level as well as at the end of each compilation round where both financial and non-financial sector accounts specialists are present. The approximate goal for the maximum level of total vertical discrepancies is around 10-15 per cent of quarterly GDP. The sectors mostly affected by vertical balancing are S11, S14 and S2. This corresponds to the identified data source gaps or other similar data shortcomings, e.g. the limited availability of unlisted share transactions. Due to the limited ability to identify all the actual instruments behind vertical discrepancies F89 is the most common instrument involved in vertical balancing.

B.2.5 Methods to align quarterly and annual data

As the compilation of both annual and quarterly data take place in the same system there is no need for alignment measures.

C.1 Description of the requirements in the field of financial accounts statistics.

At (i) international level they 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.

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'). For the euro area, financial accounts statistics support the Eurosystem in its tasks to define and implement the single monetary policy. At (iii.) national level data both quarterly and annual data are published. The publication involves a textual part, tables and graphical presentations that disseminate the major findings of the accounts to the media and the general public. Public access to the financial accounts database on the website allows other statisticians, media, research institutions, individual researchers or anyone else to utilize the richness of the more detailed information available.

C.2.1 Accuracy and reliability

For every single item the source that is deemed to be the most reliable is chosen. Balancing measures are carried out with the help of the most reliable instrument and sector totals. All relevant and available source statistics are continuously available and visible for the compilers for eventual comparison and check of credibility. Source data providers are contacted if anomalies or peculiarities in data trends are identified. Reasons for large source data revisions are scrutinized. Balancing measures are carried out in order to produce a credible, consistent and coherent whole.

The nature of different data sources has repercussions in the results and the eventual revisions. In cases where only annual data is available larger revisions are inevitable at the time when actual annual data become available and replace latest quarterly estimates. This is the case in e.g. instruments F512, F81 and F89.

Some of the underlying data sources are frequently updated and revised. In the continuous quest of furthering reliable and truthful financial accounts these revisions are utilized whenever they become available. This practice results in revisions during every production round.

In addition to an approximate level of total net lending/borrowing differences of around 10-15 per cent of quarterly GDP at the maximum no other quantitative measures are utilized in the compilation process.

An illustration of stock data accuracy can be found in our quarterly published revision tables (http://www.tilastokeskus.fi/til/rtp/rev_en.html) where the current release is compared to the quarter specific first release. In order to calculate more general indicators the revisions can be compared to the GDP.

C.2.2 Internal consistency

All data are based on a who-to-whom approach in a compilation framework and database where an asset of a sector is simultaneously the liability of another sector and vice versa. This approach guarantees that there are no discrepancies between assets and liabilities.

The compilation of both annual and quarterly accounts take place within the same database and calculation system. This results in complete consistency of these temporal dimensions. Inconsistencies and vintage differences are also eliminated by publishing quarterly and annual data simultaneously. Also the reporting to international organizations is similarly aligned.

After each production round an internal consistency check is carried out. This procedure utilizes the consistency checks provided by the ECB and guarantees that the data set and the underlying database consist of internally consistent data also in the reporting framework where not all sector and instrument combinations are plausible or acceptable.

C.3.1 National requirements:

The national publication of quarterly data takes place at around t+90 days. Annual data is made public at the same time and updated simultaneously with quarterly data.

C.3.2 International requirements:

The complete national quarterly data set is delivered to the ECB at t+85 days. There is no separate transmission at t+97 days which is the official timetable for all national data. The reporting of annual data to Eurostat takes place at the same time as reporting to the ECB. Relevant data deliveries to the OECD take place in conjunction with the ECB deliveries. The SDDS+ data are produced to be at the disposal of the IMF at t+3 months.

C.4.1 External consistency

At the end of each quarterly compilation round a consistency check of net lending and net borrowing with quarterly non-financial sector accounts is carried out. At the general level there are no absolute predetermined goals for net lending differences. The primary goal is not to completely eliminate the differences but, at the minimum, to keep them at a satisfactory level. The approximate goal for the maximum level of total vertical discrepancies (i.e. all sectors combined) is around 10-15 per cent of quarterly GDP. However, the work to decrease the discrepancies is an ongoing process and to the extent that resources and data sources allow possible reasons for differences are continuously studied. This takes place at the micro data level as well.

The sectors reported in QFAGG accounts have more strict goals in terms of net lending differences. Here the differences are kept markedly lower and are not allowed to exceed an agreed threshold of 2 per cent of quarterly GDP.

During the compilation process consistency with comparable data sources is carried out. As the compilation of financial accounts is a process involving balancing methods to produce a consistent and comprehensive set of accounts deviations from source data have to occur. In many cases there are multiple data source candidates for a single item. Consistency between them cannot ever be complete. Deviations occur, but for quality and methodological reasons. There are no absolute predetermined goals for external consistency.

The consistency between BoP and financial accounts for the quarters under preparation will be gradually increasing after the introduction of a new compilation system for BoP/IIP that took place in 2017. The increasing consistency of the accounts will be the outcome of enhanced cooperation in BoP and RoW compilation.

C.4.2 "Time" and back data consistency:

Both the annual and quarterly data are available from 1995 onwards, both on stocks and transactions. The back data from 1995 onwards is consistent with ESA 2010.

It should also be noted that on the Statistics Finland web page there are additional data on financial accounts stocks for the period 1970-1994 (http://pxnet2.stat.fi/PXWeb/pxweb/en/StatFin_Passiivi/StatFin_Passiivi_kan_rtp/) which are not compatible with ESA2010.

C.4.3 Consistency across frequencies:

Consistency between quarterly and annual data is complete. The compilation and reporting are carried out by utilizing the same database for both frequencies. Transactions for annual data are composed from the sum of the four quarters of the year and the annual stocks relate to the stocks at the end of the fourth quarter. This means that in the database a full update of financial accounts is made each quarter, including both the quarterly and the annual accounts.

C.5 Accessibility and clarity

C.5.1 Data

Both the quarterly and the annual press releases are published on the Statistics Finland website. There is a home page for financial accounts at http://tilastokeskus.fi/til/rtp/index_en.html where the latest release and links to the previous releases (http://www.stat.fi/til/rtp/tie_en.html) can be found.

There is a PX-Web database ("StatFin") on the website where both quarterly and annual data including stocks and transactions can be accessed: http://pxnet2.stat.fi/PXWeb/pxweb/en/StatFin_kan__rtp/?tablelist=true.

National data can also be accessed at the web sites of the following international organizations:

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

Links to metadata can be found on the financial accounts homepage at http://www.stat.fi/meta/index_en.html as well as on the general Statistics Finland metadata homepage at http://www.stat.fi/meta/index_en.html.

C 5.3 Contact

Please, contact the Finnish Financial Accounts (financial.accounts@stat.fi) for further information.

Annex to CoP8: Data source map for financial accounts

Please insert the main data sources (maximum of 3 sources, most important first) used for the financial accounts for all cells (assets and liabilities, instrument/sector combination) in the panel below. Some cells and footnotes are filled - this is purely to provide examples - please overwrite.

Please use the key as described to the right.

Please flag with * or ** for each instrument the respective "residual" cell (see more detail in the footnotes).

If the data source for quarterly (and/or preliminary) financial accounts differs substantially from those for annual (final) financial accounts indicate this in the table by inserting a footnote reference number and provide explanation below the table. Similarly insert generally the main source for stocks and indicate if the source for transactions differs substantially (e.g. not derived from valuation adjusted stocks) by inserting a footnote "#" with explanations (see example in footnotes).

Map of main data sources

Country: Name of institution: Year: Finland
Statistics Finland
2015

		Assets				Liabilities													_		
		S11	S12K	S124	S12 O	S128	S129	S13	S14+ S15	S2	S11	S12K	S124	S12 O	S128	S12 9	S13	S14+ S15	S2		a sources and estimations: Business
		NFCs	MFIs	IFs	OFIs	IC	PF	Gov	HH+ NPISH	Ro W	NFC s	MFIs	IFs	OFIs	IC	PF	Gov	HH+ NPISHs	Ro W	BR	register with corporation level balance sheets
F11	Monetary gold		BoP																BoP	Sur	Quarterly survey data to corporations (BoP related)
F12	SDRs		BoP																BoP	MFI	MFI balance sheet statistics
F21	Currency	MFI	MFI		MFI	MFI	MFI	MFI	•	MFI		MFI								IF	Investment fund statistics
F22	Deposits, transferable	MFI,BoP	MFI	IF	MFI, BoP	MFI, IC	MFI, IC	MFI, QFAG G MFI,	MFI	MFI		MFI, IF					QFAGG		BoP, PF, MFI		
F29	Deposits, other	MFI	MFI	IF	MFI	MFI		QFAG G	MFI	MFI		MFI, IF					QFAGG		MFI*		
F3	Debt securities	SHS*	MFI, IF	IF	SHS	IC, SHS	IC	SHS, QFAG G	SHS, BoP	MFI, BoP *	BoP, IC, IF	MFI, SHS, IC		MFI, BoP*	MFI, SHS	SHS	QFAGG		MFI, SHS, IF	IC	Insurance corporations statistics
F4	Loans	NFC*, BoP, QFAGG, e^^^	MFI, IF	IF	Sur, BoP, IF	IC	IC	IF, PF, QFAG G	IF	BoP *	MFI, BoP, IF, e^^^	Sur	IF	BoP, MFI	BoP, MFI, IC		QFAGG (MFI, BoP)	MFI	MFI, BoP	PF	Pension fund statistics
F511	Listed shares	SHS, BoP	MFI	IF	BoP, SHS	IC, BoP, SHS	IC, BoP	SHS	SHS, BoP	BoP *	BoP, SHS, IF	SHS		BoP, SHS, IF					IF, BoP, SHS	QFAGG	Quarterly financial accounts for general government Balance of
F512	Unlisted shares	BoP, BR*	MFI	IF	BoP, BR	IC, BoP	IC	QFAG G	BR, BoP*	BoP , BR	BR, BoP, IF	BoP, MFI		BoP, BR, MFI	MFI, BoP		QFAGG		BoP, IF	ВоР	payments and international investment position.
F519	Other equity	BoP, BR*	MFI	IF	BoP, BR			QFAG G (BoP*)	BR, MFI	BoP , BR	BR, BoP*	Sup, BoP		MFI, BR	IC*		QFAGG		BoP		,
F52	Investment fund shares/units	IF, BoP	BoP, IF, SHS	IF, SHS	IF, BoP, SHS	IF, BoP, IC	IF, IC	SHS, IF, BoP	IF, BoP	IF		IF	IF, SHS						SHS/ BoP/ IF	SHS	Securities holdings statistics
F61	Non-life insurance techn. res.	IC	IC		IC	IC	IC	IC	IC	IC					IC					Sup	Supervisory data
F62 F63-	Life insurance and annuities Pension entitlements								IC IC						IC IC	Sup	QFAGG				
F65 F66	Standardised guarantees								QFAGG							Oup	QFAGG				
F7	Financial derivatives	BoP, MFI*	MFI, IF	IF	BoP, MFI	MFI, BoP		QFAG G (MFI)	MFI	MFI, BoP , IF*	MFI, BoP*	MFI, IF	IF	BoP, MFI	MFI, BoP		QFAGG (MFI*)	MFI	MFI, BoP, IF		
F81	Trade credits and advances	BR, BoP *			BR*	IF*	IC	QFAG G		BoP	BR, BoP*			BR*	IC, BoP		QFAGG	e^^	BoP	e^^	estimate (expl. in footnote ^^, etc.)
F89	Other accounts excl. F81	BR*##	MFI	IF	MFI	IC*	IC*	QFAG G	QFAG G	MFI	BR*# #	MFI	IF	MFI, BR	IC, MFI*	IC*	QFAGG	e^ ##	MFI, IF, ##	na	not available, estimation not meaningful

^{* &}quot;Residual sector for respective instrument - i.e. the sector (assets or liabilities) where source is available, but most likely adapted to achieve horizontal consistency.

Different source and/or adjustment for transactions (if applicable):

Transactions partially adjusted to improve ("vertical") consistency with non-financial accounts B9.

Other explanations in particular concerning other sources and estimates:

estimate based on a previous survey

estimate based on annual data