

## Quality report for Financial Accounts as provided by Ireland (Central Statistics Office and Central Bank of Ireland)

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### A. INSTITUTIONAL ENVIRONMENT

#### A.1. CoP1 Professional Independence / PC1 Professional Independence

##### A.1.1 Legal Basis

**Article 13** of the **Statistics Act (1993)** establishes the independence of the Director General and, more broadly, the Central Statistics Office of Ireland, in respect of the generation, production and dissemination of official statistics. More specifically, the Article 13 states that –

*The Director General shall have the sole responsibility for and be independent in the exercise of the functions of deciding*

- (a) the statistical methodology and professional statistical standards used by the Office;*
- (b) the content of statistical releases and publications issued by the Office; and*
- (c) the timing and methods of dissemination of statistics compiled by the Office.*

**Article 40** of the same Act further consolidates the legal safeguards provided by this legislation in stating that -

*Any person who wilfully obstructs the Director General (of the Central Statistics Office) or an officer of statistics in the exercise of his functions under this Act shall be guilty of an offence.*

From a European perspective, the development, production and dissemination of statistics are governed by the statistical principles laid down in **Article 2** of the **Regulation (EC) No 223/2009** of the European Parliament and the Council on European statistics.

The independence of the CBI (Central Bank of Ireland), in its capacity as a member of the ESCB, is provided for 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

At national level the work programme covering the area of financial accounts is set out and determined, in consultation with, the *Centralised Coordination Group (CCG)*. The CCG is a high-level

group composed of management, and sponsored by directors/senior management from the areas of Macroeconomics and Statistics in the Central Statistics Office and the Central Bank of Ireland. Details of this work programme, explicitly outlining its content, are not currently available on the website of either institution.

National financial accounts work programmes are principally guided, at 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.”

[Statistical programmes - European Statistical System \(ESS\) - Eurostat \(europa.eu\)  
https://www.ecb.europa.eu/stats/pdf/2017escbstatisticsworkprogramme.en.pdf](https://www.ecb.europa.eu/stats/pdf/2017escbstatisticsworkprogramme.en.pdf)

(ii) ECB – From a quarterly perspective the work programme for quarterly financial accounts is determined by the Working Group on Financial Accounts and Government Statistics (WG FGS) operating under a mandate from the ECB Statistics Committee (STC). This programme is reviewed and updated annually.

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

### A.2.1 Allocation of Responsibilities

The institutional arrangements for the production of national financial accounts statistics in Ireland are as follows –

- a) Quarterly Financial Accounts – Compiled and disseminated by the Central Bank of Ireland.
- b) Annual Financial Accounts – Compiled and disseminated by the Central Statistics Office.

### A.2.2 Legal Basis

The **Statistics Act (1993)** provides the legal basis and mandate for the collection of data for statistical purposes. More specifically, **Article 10** of the Act states –

*(1) The functions of the Office shall be the collection, compilation, extraction and dissemination for statistical purposes of information relating to economic, social and general activities and conditions in the State.*

*(2) The Office shall have authority to co-ordinate official statistics compiled by public authorities to ensure, in particular, adherence to statistical standards and the use of appropriate classifications.*

*(3) The Office shall have authority to assess the statistical potential of the records maintained by public authorities and, in conjunction with them, to ensure that this potential is realised in so far as resources permit.*

The Act provides a comprehensive mandate for compiling official statistics on an independent and objective basis. The Act protects the confidentiality of the information provided to the CSO, which may only be used for statistical purposes; and confidential data may not be disseminated or otherwise communicated to third parties, including Government Departments or bodies.

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

#### A.3.1 Advance Release Calendar

A four-month release calendar is produced by the Central Statistics Office which outlines the release schedule for all areas of statistical output, including financial accounts. In tandem with this there is a weekly release calendar which presents an explicit timeframe for statistical dissemination and publication. These calendars are available at

<https://www.cso.ie/en/csolatestnews/releasecalendar/>

In the context of quarterly financial accounts the Central Bank of Ireland publishes a publications calendar on its website. A calendar of weekly events and publications is also released. See links below.

<https://www.centralbank.ie/statistics/data-and-analysis/financial-accounts>

<http://www.centralbank.ie/Pages/WeeklyCalendar.aspx>

#### A.3.2 Revision Policy

The principal data sources for the production of annual financial accounts are (1) BOP statistics, (2) QFAGG, (3) Banking statistics and (4) administrative sources such as tax records and corporate balance sheet data from the Companies Registration Office.

Under normal circumstances, the nationally-published quarterly BOP, IIP and External Debt results and the related calendar year results are first revised at end-June of each year when the first quarter's results are published. They are revised for a second time one year later. At that point these results are normally considered final. The nationally-published detailed annual results are normally revised once and are then considered final.

Revisions to Government data occur more frequently but any and all revisions are incorporated annually during the compilation phase of production.

The nature and occurrence of routine revisions, along with any exceptional revisions (for example, as a result of methodological changes), are communicated to users normally with the publication of the data itself.

Revisions are incorporated in quarterly financial accounts once a year. This is usually in September each year. Explanations relating to such revisions are usually communicated to users at the time of publication.

## **B. STATISTICAL PROCESSES**

### **B.1.1 General Remarks**

The financial accounts are compiled in accordance, and are broadly consistent, with the principles, requirements and conceptual framework of ESA 2010 and SNA 2008.

### **B.1.2 Residency and Territory**

The principles of residency and economic territory as outlined in ESA 2010 are applied throughout all stages of the statistical production process.

### **B.1.3 Institutional Unit Definition**

The general concepts of the institutional unit as set out in ESA 2010 – the ability to compile a complete set of accounts, autonomy of decision-making, centre of economic interest – are broadly adhered to in the compilation of the financial accounts. Some element of the data sourced directly from corporate balance-sheets may contain transactions/positions which stray from this principle although the extent of this effect is considered to be relatively small.

### **B.1.4 Sectorisation and Sector Delimitation**

The classification of institutional units into their appropriate institutional sectors follows the principles and recommendations laid out in the ESA 2010. No significant deviations from these requirements occur in the compilation/production process.

### **B.1.5 Instrument Identification**

Financial transactions and positions are classified into their appropriate financial instrument in accordance with the principles and recommendations of ESA 2010.

In the case where corporate balances-sheet data from the Companies Registration Office is used in the compilation of an element of the S.11 sector some estimation is required, principally through a process of residual allocation, to derive positions for AF.89 – Other Accounts Receivable/Payable excluding trade credits and advances.

### **B.1.6 Valuation, including Derivation of Transactions and Other Flows**

In principle BOP transactions are recorded on an accruals basis using market valuation. In practice the collection system is designed to adhere to this approach and, for the most part, the valuations reported are either market values or a close approximation. Positions are generally valued at market price at the end of the reference period.

In the case where corporate balances-sheet data from the Companies Registration Office is used in the compilation of an element of the S.11 sector, transactions need to be estimated. This is achieved by approximating, in the first instance, using the change in stock position from end-year to end-year. The resulting estimate can be further refined using counterpart (normally banking data) information, if available, on revaluations or other volume changes.

For quarterly financial accounts, annual CRO (which are not available from BOP returns) are quarterised and where necessary forecasted using the Denton method. For Ireland, approximately 15 per cent of the NFC sector is compiled using these quarterised data. The remainder of the sector is compiled using quarterly BOP returns.

#### B.1.7 Time of Recording (accrual accounting)

In principle, transactions coming from the BOP statistics are recorded on an accruals basis using market valuation. In practice the collection system is designed to adhere to this approach. In certain cases, income (interest) flows on debt securities may be reported on a cash basis rather than an accruals basis. All other principal data sources generally comprise of data which is compiled on an accruals basis. The BOP survey instructions state that "*Investment assets and liabilities of the Company including Equities, Bonds and Notes, Bank Deposits etc. Transactions and balance sheet positions, together with related investment income earned/payable, on an accruals basis, are to be reported. Also required are the valuation changes due to market price and exchange rate movements.*"

#### B.1.8 Coverage Gaps

Information on the extent of resident Households' transactions and stock positions with non-resident counterparties is of relatively low quality. This gap is most significant for non-resident currency and deposit (AF.2) assets. We are not aware of any specific coverage gaps in relation to OFIs and derivatives in Ireland. Further detail on OFI sources can be found in the BOP survey (BOP44 and BOP45) instructions, found at <https://www.cso.ie/en/methods/surveyforms/internationalaccounts/>.

#### B.1.9 Non-consolidation/Consolidation at Sectoral Level as Required Under ESA 2010 Submission Programme

Both transactions and positions are compiled on a consolidated and a non-consolidated basis in the annual financial accounts. The data quality of the BOP surveys and corporate balance-sheets is sufficiently high in relation to counterpart detail for loans which permits a very good estimation of consolidated private sector debt.

The full and technically correct consolidation of the Total Financial Sector (S.12) has not yet been completed. Currently this is shown as the arithmetic sum of the consolidated sub-sectors of S.12. Work is ongoing to systematically address/resolve significant internal imbalances in the financial accounts matrix vis-à-vis the respective sub-sectors of S.12 which will, eventually, permit a proper estimation of the consolidated S.12 sector.

In quarterly financial accounts, data is compiled on a whom-to-whom basis for deposits, loans, securities, quoted shares and mutual funds.

#### B.1.10 Specific Issues for Instruments covered by MIP indicators

- **Private sector debt**  
Household debt is considered to be well-based and is not usually revised by material amounts. NFC debt is extremely large in Ireland. It can be subject to significant revisions and trends in NFC debt can be quite volatile over time. This is largely due to the activities of MNCs which are very large relative to the size of the Irish economy. NFC debt is compiled using quarterly BOP surveys and annual administrative data sources. The former has at times been subject to large revisions due to multinational corporations (MNC) activities. The latter as outlined in section B.2.3 is an annual data source which is collected at a time lag and therefore subject to revision. CSO and CBI have published a number of supplementary releases and articles to inform users of the impact of MNCs on NFC debt.
- **Private sector credit flow**  
As outlined above this indicator can be volatile and subject to large revisions due to the activities of large MNCs in the Irish economy. In addition, as outlined in B1.6 transactions for the administrative data source are not directly collected and must therefore be estimated.
- **Total Financial Sector Liabilities**  
The total financial sector in Ireland is extremely large. This is partly due to the activities of large financial MNCs. This can make the financial sector liabilities data extremely volatile and subject to material revisions.

#### B.1.11 Other Major Deviations not Listed Above

All covered above.

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

B.2.1 Data Source Map: See table in Annex below.

B.2.2 Description of Procedures and Methods

Financial accounts are generally compiled according to the bottom-up principle, i.e. data for the top sector are calculated using available data for the sub-sectors and sub-categories of financial instruments. Where this is not possible owing to incomplete sub-account data, data from higher accounts are disaggregated for the lower accounts according to the top-down principle. Owing to the varying degrees of reliability and temporal availability of primary statistics, data are compiled according to a hierarchy of sources for the selection of data sources to calculate the various instruments and sectors. This is based on the objective of capturing, above all, the domestic sectors accurately.

### B.2.3 Estimation of Missing Data

Quarterly financial accounts utilises the quarterly BOP surveys and non-BOP NFC files. In respect of estimating for missing data and, in particular, for missing latest data we confine our broad comments to the S.11 sector. It is in this sector that the most significant estimation for data of this type happens. Most of the NFC sector is compiled using BOP survey data. However, there are some NFCs which are not BOP-relevant and therefore not covered in BOP surveys. These entities represent approximately 15 per cent of the overall NFC balance sheet and are sourced from administrative sources such as tax records and corporate balance sheet data. These sources lag the latest year by one year. In other words, in estimating for 2021 data, only data for 2020 is available from these sources. The process for estimating the missing latest year involves using ratios of the BOP NFCs versus administrative NFCs not included in BOP for earlier years to derive an estimate for the latest year missing data. Transactions are then estimated using the change in position as an initial estimate, which is further nuanced, if required, by reference to various counterpart sources (such as banking and Government data).

### B.2.4 Balancing procedures (horizontal and vertical)

In the balancing stage of the process of production the positions and transactions are allocated, to the extent possible, to counterpart sectors, based on original information or on preliminary allocation proportions. For many cells in the matrix this process yields two estimates, one from each side. Almost invariably the two estimates differ to some extent, because of differences in such factors as coverage, valuation and timing. Furthermore, for many other cells, only a single-sided estimate is available. This is the case, in particular, for the Household Sector for which no direct or primary data are available, and which must be compiled entirely on the basis of counterpart data and estimations.

In the next stage of balancing, discrepancies are identified (significant imbalances, if any, are recorded, investigated and resolved before the formal balancing process begins) and the matrix is balanced. This is done predominantly by means of a mechanical process via an application of a set of balancing **Rules**, together with judgemental processes, to bring about compliance with several accounting identities and conventions. A key requirement is that the sum of all holdings by residents and non-residents of financial assets of a given class should be equal to the sum of all liabilities of that class (also by residents and non-residents). In this operation, priority is given to retaining, as far

as possible, consistency with other well-based statistics such as official banking and International Investment Position and Balance of Payments statistics, and Government finance statistics.

Some of the imbalances which come to the surface inevitably therefore get allocated to sectors or instruments for which the primary statistics are less well based, such as S.11 (certainly for the latest year where significant estimation for this sector occurs), S.125+S.126+S.127 (due to its relatively large size, heterogeneous nature and potential coverage gaps), and, if justified, S.14+S.15 (no direct source data). The instruments in which the most relatively significant balancing adjustments occur tend to be AF.512 (Unlisted Shares) and AF.89 (Other Accounts Receivable/Payable excluding Trade Credits and Advances).

The general approach to balancing the annual financial accounts is elaborated upon in the national publication, available at

<https://www.cso.ie/en/statistics/nationalaccounts/institutionalsectoraccountsnon-financialandfinancial-annual/>

## B.2.5 Methods to Align Quarterly and Annual data

The institutional arrangements for the production of national financial accounts statistics in Ireland are as follows –

- a) Quarterly Financial Accounts – Compiled and disseminated by the Central Bank of Ireland.
- b) Annual Financial Accounts – Compiled and disseminated by the Central Statistics Office.

As a result of these institutional arrangements both processing systems and production processes have evolved separately over time and have led to alignment differences. A programme of work was undertaken to address and reconcile these differences. One of the products of this effort was the agreement to implement, where practicable and with deference to broader constraints, a set of **Rules** for balancing the financial accounts matrix. This approach has led to significant improvements in the consistency of the annual and quarterly time-series. Work is ongoing, through a collaborative effort led by a working group composed of members from CSO and CBI, to address outstanding differences and alignment issues.

## C. STATISTICAL OUTPUT

### C.1 *CoP11 Relevance / PC11 Relevance*

At national level the annual financial accounts of the institutional sectors are published and disseminated in an integrated presentation together with the non-financial sector accounts. The direct presentation of financial accounts data is, in response to user demands and feedback, being augmented by supplementary analyses which aim to facilitate deeper engagement with the data.

Quarterly financial accounts and quarterly non-financial accounts are compiled by the CBI and CSO, respectively. They are therefore published separately. Quarterly financial accounts data are usually

published at approximately t+110 days. A detailed commentary on the results accompanies the release.

At international level annual financial accounts data is required by Eurostat to produce three of the headline MIP Scoreboard indicators which help in identifying macroeconomic imbalances for a given economy. The data supports the assessment of vulnerabilities and interconnectedness for financial stability purposes by the European Systemic Risk Board (ESRB).

Quarterly Financial Accounts is published on the SDW by the ECB and is also used by the ECB to compile euro area accounts. The data is also used by the ECB for financial stability and monetary policy purposes.

At an international level both sets of data 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.

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

### C.2.1 Accuracy and Reliability

Annual financial accounts are subject to a suite of edit-checks as part of the validation process undertaken by Eurostat in advance of publication. The financial accounts for Ireland have passed all validation checks currently in place.

Revisions, apart from exceptional items, are implemented in accordance with the schedule as outlined in 1.3.2.

In quantitative terms, the annual financial accounts ensure that the net financial transactions (B.9F) and financial net worth (BF.90) for the Rest of the World (S.2) are consistent with the published BOP and net IIP. The scale of the vertical discrepancy, by sector, between the financial transactions account and the non-financial sector accounts is closely monitored for quality and systematic issues. This work is naturally influenced by the scale, in any given year, of the net errors and omissions.

Quarterly Financial Accounts compilation procedures have a number of steps to ensure high quality results. Significant transactions, other changes and revaluations in the raw data are all investigated. The plausibility of all raw data is 'signed-off' once all issues have been investigated. Next, material differences between sector views in the 'whom-to-whom' balancing matrices are investigated by the team. After this, the size of the residuals inserted in the system is monitored. Then, the plausibility of the balanced results is checked. Significant transactions, other changes and revaluations in the balanced data are all investigated and 'signed off' by the team. Finally, the consistency of the data is checked.

### C.2.2 Internal Consistency

Annual Financial Accounts:

In qualitative terms the accounts are closely scrutinised during the balancing stage of production to identify anomalous time-series issue and/or unusually large revaluations. These are investigated and explanations sought for their occurrence. Once the results are at a draft stage they are assessed in light of the scale of revision to the results in comparison to earlier vintage(s) and significant revisions are explored.

In general terms the compilation and production (including balancing) processes contain, along the way, various means by which quality and accuracy are monitored. However, apart from the analysis of the B.9/B.9F discrepancy, there is currently no framework in place which would facilitate an easy cross-country comparison of reliability and accuracy.

Quarterly Financial Accounts:

The data is compiled on a whom-to whom basis for all instruments except currency, unquoted shares, other shares and other accounts payable receivable. Thus, by construction, the system is always internally consistent. Throughout the compilation process our validation systems compare change in stocks, transactions and other changes.

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

#### *C.3.1 National Requirements*

Publication of quarterly data usually occurs at T+110 days after the latest reference quarter.

Publication of annual data usually occurs at T+10 months after the latest reference year.

#### *C.3.2 International Requirements*

In the EU, the ESA 2010 transmission programme requires reporting of annual data at T+9 months. Length of the required time series is from 1995 onwards. Currently Ireland publishes annual data from 2001 (stocks) and 2002 (transactions), with a limited number of series published from 1995.

The quarterly data requirements of the ECB are T+85 days (for compilation of euro area aggregates only) and T+97 days (national data, for publication by 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*

In both the annual and quarterly financial accounts the net financial transactions (B.9F) for S.2 (Rest of the World) is consistent with the published BOP. In the annual accounts the financial net worth (BF.90) of S.2 is consistent with the published net IIP from the Balance of Payments statistics.

Quarterly financial accounts financial net worth is very close to the published net IIP from balance of payments statistics.

Data for the General Government (S.13) sector, in both the annual and quarterly accounts is consistent with the most recent vintage of the QFAGG.

Consistency with the non-financial sector accounts is determined, from year to year, largely by the extent of the net errors and omissions. The vertical discrepancy (B.9 – B.9F) for each institutional sector is monitored for anomalous and systematic deviations.

#### C.4.1 Time and Back-Data Consistency

There are no significant breaks in the annual time-series. The series is ESA 2010 compliant and consistent across its timespan.

There are no material breaks in the quarterly financial accounts.

#### C.4.2 Consistency across Frequencies

As outlined earlier in this report, the quarterly and annual series are compiled in the CBI and the CSO respectively. Separate compilation and production systems inevitably produce series which are not fully consistent. However, a programme of collaborative work has been in place and is ongoing to reconcile the two sets of accounts. Significant differences and discrepancies in the two series have been resolved and both sets of accounts are largely consistent now. Remaining differences are relatively small in scale and are being addressed and resolved through the efforts of a joint working group composed of staff from both institutions.

### C.5 *CoP15 Accessibility and Clarity / PC15 Accessibility and Clarity*

#### C.5.1 Data

National annual financial accounts are published annually and are available from the CSO website through its interactive database.

<https://data.cso.ie/>

The accounts are published in electronic format only and are presented in an integrated fashion with the annual non-financial sector accounts. The most recent edition is available by following the link below.

<https://www.cso.ie/en/statistics/nationalaccounts/institutionalsectoraccountsnon-financialandfinancial-annual/>

National quarterly financial accounts are published each quarter and are available from the CBI website.

<https://www.centralbank.ie/statistics/data-and-analysis/financial-accounts>

Links to international organisations' data repositories are listed below.

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#](http://stats.oecd.org/Index.aspx?DataSetCode=FIN_IND_FBS#)

### C.5.2 Metadata

Metadata on the annual financial accounts is available as part of the annual electronic publication and is found by following the link below.

<https://www.cso.ie/en/statistics/nationalaccounts/institutionalsectoraccountsnon-financialandfinancial-annual/>

A detailed commentary is published each quarter by the Central Bank in relation to Quarterly Financial Accounts. It explains key trends in the data and reasons for significant movements. It is available here: <https://www.centralbank.ie/statistics/data-and-analysis/financial-accounts/financial-accounts-archive>

### C.5.3 Contact

Annual Financial Accounts contacts: Lucia Perez Alfaro, Dina Celentano and John Sheridan.

Queries can be sent to [faccount@cso.ie](mailto:faccount@cso.ie) or [lucia.perezalfaro@cso.ie](mailto:lucia.perezalfaro@cso.ie)

Quarterly Financial Accounts contacts: Anne-Marie Kilkenny and Marco Moreno.

Queries can be sent to [qfaireland@centralbank.ie](mailto:qfaireland@centralbank.ie)

Annex to B2.1: Data Source Map for Financial Accounts

		Assets									Liabilities								
		S11	S12K	S124	S12O	S128	S129	S13	S14+S15	S2	S11	S12K	S124	S12O	S128	S129	S13	S14+S15	S2
		NFC	MFI	IF	OFI	IC	PF	QFAGG	HH+NPISH	ROW	NFC	MFI	IF	OFI	IC	PF	QFAGG	HH+NPISH	ROW
F11	Monetary gold		MFI					QFAGG		MFI							QFAGG		BOP
F12	SDRs		MFI					QFAGG		MFI							QFAGG		MFI
F21	Currency	MFI	Sup	IF	OFI	IC	PF	QFAGG	Sup + e	Sup + e							QFAGG		BOP
F22	Deposits, Transferable	NFC	MFI	BOP	OFI	MF/BOP	MF/BOP	QFAGG	MFI	MFI							QFAGG		MFI
F29	Deposits, Other	NFC	MFI	IF	OFI	MF/BOP	MF/BOP	QFAGG	MFI	MFI							QFAGG		MFI
F3	Debt Securities	NFC	MFI	BOP	OFI/BOP	BOP	BOP	QFAGG	MFI	BOP/MFI/QFAGG	NFC	MF/BOP	IF	OFI	IC/SEC/MFI	PF	QFAGG		0 MFI/QFAGG/BOP
F4	Loans	NFC	MFI	IF/BOP	OFI/BOP + e	BOP	PF	QFAGG	BOP/NFC	BOP/MFI/IF/QFAGG	NFC		IF	OFI + e	IC	PF	QFAGG	MFI/OFI	BOP/NFC
F511	Listed Shares	NFC	MFI	BOP	OFI/BOP	IC	PF	QFAGG	BOP + e	BOP + e	NFC/SEC	MFI + e	SEC	OFI/SEC	IC/SEC	PF/SEC	QFAGG		0 BOP + e
F512	Unlisted Shares	NFC	MFI + e	IF/BOP	OFI/BOP + e	IC	PF	QFAGG	BOP + e	BOP + e	NFC	MFI + e	IF	OFI	IC	PF	QFAGG		0 BOP + e
F519	Other Equity	NFC	MFI	BOP	OFI	IC	PF	QFAGG	BOP/NFC	BOP	NFC/SEC	MFI	IF	OFI	IC	PF	QFAGG		0 BOP
F61	Investment fund shares/units	NFC	MFI	IF/BOP	OFI/BOP	BOP	PF/BOP	QFAGG	PF/BOP	MFI/IF		MFI	IF	OFI	IC	PF	QFAGG		BOP/IF/MFI
F62	Non-life insurance tech res	NFC	MFI	IF	OFI	IC	PF	QFAGG	IC	BOP/IC	NFC/SEC	MFI	IF	OFI	IC	PF	QFAGG		BOP
F62	Life insurance and annuities								IC	BOP/IC									BOP
F63-64	Pension entitlements	NFC	MFI	IF	OFI	IC	PF	QFAGG	IC/PF	BOP	NFC/SEC	MFI	IF	OFI	IC	PF	QFAGG		BOP
F66	Standardised guarantees	NFC	MFI	IF	OFI	IC	PF	QFAGG	IC	BOP/IC	NFC/SEC	MFI	IF	OFI	IC	PF	QFAGG		BOP
F7	Financial derivatives	NFC	MFI	IF	OFI	IC	BOP	QFAGG	MFI	BOP/MFI/IF	NFC	MFI	IF	OFI	IC	PF	QFAGG		BOP/MFI
F81	trade credits and advances	NFC	MFI	IF	OFI	IC/BOP	PF	QFAGG	IC/NFC	BOP/NFC	NFC	MFI	IF	OFI/BOP	IC	PF	QFAGG	NFC/IC	BOP
F89	Other accounts excluding F81	NFC	MF/BOP	BOP	OFI/BOP	IC/BOP	PF	QFAGG	MFI/IC/BOP	BOP/QFAGG ##	NFC	BOP	BOP	BOP	IC	PF	QFAGG	NFC/MFI/QFAGG	BOP

\* Residual sector for respective instrument - i.e. the sector (assets or liabilities) where source is available, but most likely adapted to achieve horizontal consistency.  
 \*\* Pure residual calculation as no source data for a meaningful plausibility check is available  
 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:  
 ^^ estimation based on information from non-financial corporation balance sheets

Key for data sources and calculation/estimations:

NFC From NSI Non-financial corporation balance sheets\*  
 MFI From NCB MFI balance sheet statistics  
 IF From NCB Investment fund statistics  
 OFI From NSI Other financial institution statistics  
 IC From NSI Insurance corporations statistics  
 PF From NSI Pension fund statistics  
 QFAGG From NSI Quarterly financial accounts for General Government  
 BOP From NSI Balance of payments and international investment position  
 SEC Securities issues statistics  
 SHC Securities holdings statistics  
 Sup Supervisory data  
 0 known to be zero (e.g. if concept does not exist)  
 e estimate  
 na not available, estimation not meaningful