

National 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)

Reporting institution: Banque centrale du Luxembourg

Statistical domain: financial accounts

A. INSTITUTIONAL ENVIRONMENT

A.1.1. Legal basis

Regulation (EC) 223/2009 Article 2 is the relevant reference for ESS. We refer also to Article 130 of the EU Treaty and Article 7 of the Statute of the ESCB and of the ECB as the relevant references for ESCB.

The Financial Accounts are a joint responsibility of the National Institute for Statistics and Economic Studies (STATEC) and the Banque centrale du Luxembourg (BCL). The law of 10 July 2011 on the organization of the National Institute for Statistics and Economic Studies (STATEC) specifies in its article 11: *”in carrying out its remit (...) STATEC is endowed with scientific and professional independence. (...) The statistical methods and procedures used are documented and take account of scientific standards recognized in Europe and internationally. The documentation concerning the statistical methods and procedures used is made available to the public”*.

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 BCL is provided for by its founding law. The independence of the BCL, 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

The Committee on Public Statistics established by the Minister appointed to economic affairs coordinates the statistical programs and monitors these programs in order to improve efficiency and quality, to alleviate the overall response burden and to comply with European and international obligations within prevailing deadlines. The statistical work program of STATEC is published at (only available in French):

<http://www.statistiques.public.lu/fr/acteurs/statec/organisation/programmestatistique/index.html>

The ESS and ESCB statistical work programmes can be found here:

<http://ec.europa.eu/eurostat/web/ess/-/the-european-statistics-annual-work-programme-20-1>

<https://www.ecb.europa.eu/stats/pdf/2017escbstatisticsworkprogramme>

A.2.1 Allocation of responsibilities:

STATEC remains responsible for the transmission of the annual Financial Accounts to Eurostat, while the BCL is responsible for the quarterly transmission to the ECB. In practice, STATEC compiles financial accounts for the sectors S.11, S.126 and S.13 and sends them to the BCL, while the BCL compiles all the other sectors. STATEC also sends the BCL the sectoral net lending/net borrowing B.9 and the change in pension reserves D.8 on an annual basis at T + 9 months for all sectors. The BCL integrates everything into a fully consistent set of financial accounts. The annual accounts are computed as the sum of the quarters. This is technically possible because we follow a full whom-to-whom approach for all instruments and compute at a level of sector and instrument detail sufficient to serve both quarterly and annual requirements.

A.2.2 Legal basis:

The law of 10 July 2011 on the organization of the National Institute for Statistics and Economic Studies (STATEC) specifies in its article 2: “STATEC's remit is: (...) 3. to draw up, jointly with the Central Bank of Luxembourg, the balance of payments and the financial accounts and to guarantee their methodological consistency in accordance with European and international rules, the terms and conditions of the collaboration being the subject to an agreement between the Government and the Central Bank of Luxembourg”

This formal agreement was signed by both institutions on December 18 2009.

A.3.1 Advance release calendar:

No advance release calendar for financial accounts statistics is published.

A.3.2 Revision policy:

The entire time series for the quarterly and annual financial accounts is revised once a year in September. During the year, only the most recent quarters are revised, while trying to align as much as possible to the revision strategy of the BOP/IIP. The revision policy advised by the CMFB is not explicitly applied.

With the 2020 benchmark revision of the NA, the entire series was been revised and the periods 1995Q1 -1998Q4 added.

With the 2024 benchmark revision, the entire series 1995Q1 - 2024Q1 was revised.

B. STATISTICAL PROCESSES

B.1.1 General remarks:

The financial accounts follow fully ESA 2010; no methodological deviations are known.

B.1.2 Residency and territory;

Due to the small size of Luxembourg, its open economy and the large number of cross-border workers, it might be difficult for reporters to distinguish between resident and non-resident counterparts.

B.1.3 Institutional unit definition;

No deviations.

B.1.4 Sectorisation and sector delimitation;

A difference of opinion exists between Eurostat and the ECB on the sector classification of a single Luxembourg investment bank: the Société Nationale de Crédit et d'Investissement. For this reason, we produce two versions of the financial accounts, one annual version where this unit is classified in the government and one quarterly where this unit is classified as an MFI.

B.1.5 Instrument identification;

Data on “accounts receivable/payable” AF.8 of households is missing for most periods. Data on unquoted equity AF.512/AF.519 held by households is roughly estimated due to lack of sources.

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

For most sectors source data on flows exists; except for S.11 and S.126. When only stocks exist, the revaluations are computed from market indexes; then the transactions follow as the residual.

No market value is estimated for unquoted shares; they are recorded at the book value of the “own funds”. Only for listed companies within sector S.11, where data is available on the difference between the market value and the book value of the equity, we make a correction to bring the holdings of unquoted shares at “fair value”.

B.1.7 Time of recording (accrual accounting);

We follow full accrual accounting. However, for some transactions of the government (i.e. taxes) deviations might occur.

B.1.8 Coverage gaps;

As regards the coverage of OFI (S.125, S.126, S.127):

In S.125 we record financial lease companies, the European Financial Stability Facility (EFSF) (up to 2020Q3) and the Securitization Vehicles. Quarterly balance sheet data for financial lease companies are received from the Prudential Supervisor (CSSF). The Securitization Vehicles and the EFSF report directly to the BCL on a quarterly basis report. Coverage of this subsector is therefore 100%.

In S.126 are recorded all the financial auxiliaries. The quarterly data stems from the Prudential Supervisor. To this are added the balance sheets of “management companies of investment funds”, which are not under supervision and for which only annual reports exist. Coverage of this subsector is 100%.

In the Captives sector S.127, only complete quarterly balance sheets data are collected for companies above the threshold of 500 million euro total assets. The units to report are identified from the Luxembourg “Registre de Commerce”. No grossing up is done for the remainder because the smaller companies cannot readily be compared to the larger ones. As foreseen, the BCL improved its coverage of the Luxembourg captive financial institutions by taking on board entities, which B/S is between 300 and 500 million euros. Besides, since 2018, the total assets of the captive financial institutions domiciled in Luxembourg has decreased. Consequently, the integration of the above stated entities enabled us to maintain a coverage rate of around 90%. Conscious of the importance of this issue, the BCL is still working on further processes to enhance the S127 coverage rate. The typical delay between a new company being registered and coverage in the financial accounts is 6 months.

Data (available through the ECB Securities Holdings Statistics (SHS) database) on securities held by households S.14 and NPISH S.15 through foreign custodians is not used because of quality concerns. For the holdings of unquoted equity by households we currently have no source, but we might use an estimate based on the HFCS (Household Finance and Consumption Survey) in the future.

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

No deviations.

B.1.10 Specific issues for instruments covered by MIP indicators.

No reliable data is collected on the counter parts of S.11 loans AF.4 debt. The data collected comprises “credits vis-a-vis related enterprises” but this does not tell if this is S.11 or S.12 and whether these counterparts are resident or non-resident. As a result, the intra-S.11 positions, and therefore consolidated debt figures, are subject to significant uncertainty. A microanalysis for the intra-group positions of the biggest multinational groups might bring some light in this matter.

The quality of the data from the Bank of International Settlements (BIS) on the loans granted to households by non-resident banks is under assessment.

Financial sector liabilities are all well covered, although valuation problems exist sometimes for derivatives and unquoted equity.

B.1.11 Other major deviations not listed above.

None.

B.2.1 Data source map

See Annex.

B.2.2 Description of procedures and methods

The emphasis is on a well-controlled and fast production process. Therefore, the process is largely automated. This allows maintaining the methodological consistency over the entire time series and also to always compute the statistics “bottom-up” direct from the most up-to-date source data. However, the ability to easily re-compute an entire time series naturally leads to frequent revisions (in practice only of the recent quarters, see A 3.2). Thus, the continuous pursuit to reduce the bias leads inevitably to more noise.

B.2.3 Estimation of missing data

When possible, missing data are estimated from the balancing constraints as the residual.

Source data from financial supervisory sources and the government is in general of good quality. Only since 2011 reliable stocks data exists for the Captives sector S.127, before this date the estimates for Captives come from the BOP/IIP and the resident-resident positions are estimated.

The financial data for S.11 is subject to significant uncertainty because the main source (the annual Structural Business Survey) comes available with a two years time lag and has to be extrapolated to the recent quarters while the figures have to be grossed up with approximately 25%. Few direct sources exist for the Household sector S.14, which is therefore mainly compiled based on counterpart data. This counterpart data is of good quality but does not provide a complete coverage of all household assets. For example, little data is available for households’ accounts receivable/payable, and this item is not estimated. Although the BOP/IIP contains since recently some valuable information on households’ positions abroad, still missing are cross-border positions on for example pension provisions, accounts payable/receivable and unquoted shares.

B.2.4 Balancing procedures (horizontal and vertical)

The reconciliation of the different data sources shows significant inconsistencies between the sector and counterpart sector sources. Most of them are due to the fact that for reporters it is not always easy to determine the correct instrument, counterpart sector and counterpart country. All inconsistencies are removed by an automated “balancing” system based on fixed rules. In general these rules are based on:

- a hierarchy of sources,
- residual sectors and instruments,
- expert knowledge of the compilers.

To define the optimal horizontal and vertical balancing rules remains a challenge and one cannot always say that one choice is much better than the alternative. Ideally one would do a sensitivity analysis to get an idea of the range of possible solutions to the balancing problem.

The vertical reconciliation corrections are all automated. Based on informed assumptions about the causes behind the discrepancy for a sector, we make an automated correction on a specific instrument for that sector. This guarantees methodological continuity over the entire time series. Only in exceptional cases we make manual corrections; for obvious mistakes in the data. All corrections are made on the financial transactions. Each correction takes as counterpart the ROW. Thus, the correction on S.2 follows automatically as the sum of the corrections on the resident sectors. Mostly the sectors S.11, S.122 and S.127 are affected and the instruments F.512, F.89 and F.52. (Corrections on F.52 are made for S.14 only.) The target is to have a zero statistical discrepancy for every (sub)sector. We balance each quarter. There is no difference between annual and quarterly practices because the year is the exact sum of the quarters. However, only the T+97 quarterly transmissions are balanced, not the T+85 early estimates, because the final sectoral B.9 comes available only around T+90. The NCB performs the vertical balancing. Our vertical balancing process is fully transparent. Each quarter we transmit a process table to the ECB that shows the exact magnitude of the vertical balancing corrections for each sector and instrument (for the latest quarter only). In addition, a document (the latest version dates from 2018) describing our vertical balancing procedures has been shared with our NSI, Eurostat and the ECB.

Since December 2021 we perform a quarterly vertical balancing. Before that period we did only an annual balancing, benchmarking the sum of the quarters to the annual figure. This has also increased our data set with vertical discrepancies. Based on this much larger data set, we are now able to perform a thorough statistical analysis of the discrepancies and expect to improve our balancing procedures in the near future (2024).

See also the Annex for a summary overview of the vertical balancing process.

B.2.5 Methods to align quarterly and annual data

The years are compiled directly from the quarters, so that they are aligned by construction. When sources are only available on an annual basis, these are in general distributed over the quarters by linear inter-/extrapolation.

C. STATISTICAL OUTPUT

C.1 Relevance

At international level, the Financial Accounts 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. The FA data is also used to report annually to the Financial Stability Board (FSB) in Basel.

In 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. Special notice deserves the quarterly “Household Sector Report” published by the ECB.

At national level, no relevant use is made of financial accounts data.

C.2.1 Accuracy and reliability

The bias and noise components in the source data remain largely unknown. We only have rough estimate of the reliability of each sector, i.e. a “hierarchy of sources”. This allows us to push back the bias in the source data to the same level of the variances. Any further reduction of the bias and variance would require multiple measurements for each quarter, which cannot be done in practice.

A seasonality analysis of the time series is performed on an ad hoc basis and seasonal patterns checked for plausibility.

All other quality analysis is based on a quarterly visual inspection of the time series. This allows identification of outliers, although frequent breaks in the time series might make this less obvious.

Most revisions stem from changes to the methodology, especially the balancing choices, and changes due to the introduction of new data sources over time. We are able to identify revision in an automated way, but the reasons for the revisions are often not directly obvious.

The source data situation has been quite dynamic since 2009. Due to the introduction of new surveys for IF, FVC and Captives, the introduction of Security by Security reporting, the adoption of the surveys to the new ESA 2010, BPM6, etc. While adapting the software to those changes one inevitably introduces minor mistakes that take some time to remove. Further, the newly introduced surveys in general need a period of a year or more to break in and achieve a sufficient level of quality. As a result, frequent revisions are unavoidable. Especially the introduction in December 2011 of a survey on financial companies has been a source of significant upward revisions of the stocks levels for sector S.127. We feel, however, that since 2018 the data source situation has stabilized.

C.2.2 Internal consistency

The Luxembourg real economy is small in relation to the financial flows. As a consequence, the B.9 statistical discrepancies are small compared to total flows for most sectors and easy to accommodate. We therefore bring the statistical discrepancies to zero during the balancing process. Only for the households sector these corrections have a relatively non-negligible impact of in general plus or minus 1 billion euro on an annual basis. No systemic bias in the statistical discrepancies has been observed.

See also the Annex the average size of the statistical discrepancies observed.

C.3.1 National requirements:

Publication of quarterly data is due by roughly T+110; the annual data is not published nationally.

C.3.2 International requirements:

In the EU, the ESA 2010 transmission programme requires reporting of annual data at T+9 months. 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 the IMF, quarterly financial accounts are required at t+4 months in SDDS Plus.

No deviations in punctuality have occurred so far.

C.4.1 External consistency

Basic external consistency checks are performed by the ECB on a regular basis at reception of the data from the countries with the statistics:

-Balance Sheet Item (BSI) statistics (MFI's)

-ICPF statistics

-BOP/IIP

-SEC (Securities Issues Statistics)

Differences with the financial accounts are in general small. Significant differences with the SEC can be related to issuances of securities without ISIN codes that are missing from the SEC. Minor differences with the BSI exist due to negative liabilities in AF.8 that are recorded in the financial accounts as positive assets.

On a national level, external consistency with the QFAGG is perfect by definition because the government sector data is not adjusted during the compilation. Further, consistency with the S.121 and S.122 sectors is high because the corresponding data sources are little adjusted. For other sectors only a visual check is performed, mainly to identify if there have been any changes introduced to the original B.90/B.9 from the source data. Because in the past the ROW sector was our residual sector, significant differences with the BOP/IIP existed. Since 2018, we apply a new balancing methodology where no longer the ROW but the Captives sector is the residual sector. This significantly reduces the differences with the BOP/IIP. Because the new methodology makes use of the BPM6 details, we can only apply it to periods since 2014Q4. The remaining differences for the main instrument aggregates are less than 0.1% of total cross border assets.

C.4.2 "Time" and back data consistency:

The series goes back until 1995Q1. It is recompiled once a year with the latest methodology; this assures the methodological continuity. Some breaks in the source data are difficult to remove; they occur mainly in:

-2002Q1, being the first period for which a Luxembourg BOP/IIP was compiled,

-2008Q4, due to the introduction of our Security by Security collection (for AF.33, AF511 and AF.52),

-2010Q2, due to a new format of the surveys for the banking sector,

-2011Q4, due to the introduction of a new survey on financial companies issuing debt securities (mainly Captives in sector S.127) ,

-2014Q4, due to the extension of the above-mentioned survey to financial companies issuing unquoted equity.

All breaks that can be quantified are recorded as an “Other Changes in Volume” flow.

C.4.3 Consistency across frequencies:

The annual accounts are computed as the sum of the quarters for flows and the end-of-year quarter for stocks. Therefore, full consistency exists for the September/October vintage. Because during subsequent transmissions the quarterly financial accounts can be revised while the annual are not, this consistency can be temporarily lost during the year.

C.5.1 Data

National: http://www.bcl.lu/fr/statistiques/series_statistiques/05_Economie_reelle/index.html

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

Metadata on revisions, large flows and large corrections, including full Process Tables, is quarterly sent to the ECB; metadata on revisions and major events is sent to Eurostat; no metadata is made public.

C.5.3 Contact

STATEC: Beatrice Brito, e-mail: beatrice.brito@statec.etat.lu;

BCL: Ingber Roymans, e-mail: ingber.roymans@bcl.lu

Annex to B.2.1: Main data sources 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	Gov	HH+ NPISH	RoW	NFC	MFI	IF	OFI	IC	PF	Gov	HH+ NPISHs	RoW
F11	Monetary gold		MFI					0		MFI*									0
F12	SDRs		MFI					0		MFI*									MFI
F21	Currency	NFC*	MFI	IF	MFI	IC	PF	QFAGG	**	0									MFI
F22	Deposits, transferable	MFI	MFI	IF	MFI	MFI	MFI	QFAGG	MFI	BoP	0								QFAGG
F29	Deposits, other	MFI	MFI	IF	MFI	MFI	MFI	QFAGG	MFI	BoP	0								QFAGG
F3	Debt securities	SHS	MFI	IF	SHS	IC	PF	QFAGG	SHS	BoP	SEC	MFI	IF	SEC	SEC	SEC	QFAGG	SEC	BoP*
F4	Loans	NFC	MFI	IF	Sur^^	IC	PF	QFAGG	HFCS	BoP	NFC	MFI	IF	Sur^^	IC	PF	QFAGG	MFI	BoP*
F511	Listed shares	SHS	MFI	IF	SHS	IC	PF	QFAGG	SHS	BoP	SEC	MFI	IF	SEC	SEC	SEC	0	0	BoP*
F512	Unlisted shares	NFC	MFI	IF	Sur^^	IC	PF	QFAGG	e^	BoP	NFC#	MFI#	IF	Sur# ^^	IC#	PF	QFAGG	0	BoP*
F519	Other equity	NFC	MFI	IF	Sur^^	IC	PF	QFAGG	BoP	BoP	NFC	MFI	IF	Sur^^	IC	PF	QFAGG	na	BoP*
F52	Investment fund shares/units	SHS	MFI	IF	SHS	IC	PF	QFAGG	SHS#	BoP		MFI	IF#						BoP*
F61	Non-life insurance techn. res.	IC	IC		IC	IC	IC	QFAGG	IC	BoP				IC					IC
F62	Life insurance and annuities								IC	IC									IC
F63-F65	Pension entitlements	0	0		0	0	0	QFAGG	PF	PF	NFC	MFI		Sup^^	IC	PF	QFAGG	0	PF
F66	Standardised guarantees	0	0	0	0	0	0	QFAGG	0	0				IC			QFAGG		BoP*
F7	Financial derivatives	NFC	MFI	IF	Sur^^	IC	PF	QFAGG	na	BoP	NFC	MFI	IF	Sup^^	IC	PF	QFAGG	na	BoP*
	Trade credits and advances	BoP	MFI	IF	Sur^^	IC	PF	QFAGG	na	BoP	BoP	MFI	IF	Sur^^	IC	PF	QFAGG	na	BoP*
F89	Other accounts excl. F81	NFC	MFI	IF	Sur^^	IC	PF	QFAGG	na	BoP	NFC	MFI	IF	Sur^^	IC	PF#	QFAGG	na	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.

Transactions partially adjusted to improve ("vertical") consistency with non-financial accounts B9. Since the counterpart of the correction is always S.2, the vertical consistency of S.2 is guaranteed.

^ Estimated as a fixed percentage of unquoted equity issued by S.11

^^ Including other supervisory data sources for S.125 and S.126, including FVC and the individual reporting of the EFSF

Key for data sources and calculation/estimations:

NFC	Non-financial corporation balance sheets
MFI	MFI balance sheet statistics
IF	Investment fund statistics
FVC	Financial vehicle corporations statistics
OFI	Other financial institution statistics
IC	Insurance corporations statistics
PF	Pension fund statistics
QFAGG	Quarterly financial accounts for general government
BoP	Balance of payments and international investment position.
SEC	Securities issues statistics
SHS	Securities holdings statistics
Sup	Supervisory data
0	known to be zero (e.g. if concept does not exist)
e^	estimate (expl. in footnote ^)
na	not available, estimation not meaningful
HFCS	Household Finance and Consumption survey
Sur	Quarterly survey on Captives and Holdings.

Annex to B.2.4: Vertical reconciliation adjustments in financial and non-financial sector accounts, national template*

Country: LU

1. Do you apply any balancing method during the compilation of your accounts to improve vertical consistency?

Do you apply manual adjustments?	Only in exceptional cases: for obvious mistakes in the data.
Do you apply automated adjustments? If so, could you give a brief explanation?	Yes. Based on informed assumptions about the causes behind the discrepancy for a sector, we make an automated correction on a specific instrument for that sector. This guarantees methodological continuity over the entire time series.

2. To which sectors and/or transaction do you apply the largest adjustments?

Sectors: please provide a brief explanation which sectors are subject to the largest adjustments ¹ .	S.11, S.122 and S.127 All corrections are made on the financial transactions. Each correction takes as counterpart the ROW. Thus, the correction on S.2 follows automatically as the sum of the corrections on the resident sectors.
Transactions: please provide a brief explanation which transactions are subject to the largest adjustments ² .	F.512, F.89 and F.52 (Corrections on F.52 are made for S.14 only)

3. Please indicate the balancing targets for specific sectors that you use in your country.

	Target for individual quarters	Target for four-quarter sums and/or annual data
Non-financial corporations (S.11)	0	0
Financial corporations (S.12)	0	0
Households and NPISH (S.1M)	0	0
Rest of the world (S.2)	0	0

4. Please specify whether you balance the accounts each quarter or less frequently (e.g. once a year). Please differentiate if there are different practices for annual and quarterly sector accounts.

We balance each quarter. There is no difference between annual and quarterly practices because the year is the exact sum of the quarters. However, only the T+97 quarterly transmissions are balanced, not the T+85 early estimates, because the final sectoral B.9 comes available only around T+90.

5. Would you like to add any additional information relevant to users?

The NCB performs the vertical balancing. Our vertical balancing process is fully transparent. Each quarter we transmit a process table to the ECB that shows the exact magnitude of the vertical balancing corrections for each sector and instrument (for the latest quarter only). In addition, a document (the latest version dates from 2018) describing our vertical balancing procedures has been shared with our NSI, Eurostat and the ECB.

Since December 2021, we perform a quarterly balancing. Before that period we did only an annual balancing, benchmarking the sum of the quarters to the annual figure.

This has also increased our data set with vertical discrepancies. Based on the much larger data set we are now able to perform a better analysis. In particular, we can compute the statistical correlation between the different time series of: 1) the vertical discrepancies, 2) the source data for each individual financial accounts time series, and 3) the time series of each individual balancing correction. It appears that for some sectors, the vertical discrepancies already exist in the source data, while for other sectors the horizontal balancing corrections seem to cause the discrepancies. For some sectors the discrepancies are random, for some structural, while for others they cancel out over the year.

Based on such an analysis, we have concluded that mostly discrepancies are the result of corrections made prior to the balancing. In the 2024 benchmark revision, we have adjusted our compilations for sectors S.11, S.121, S.122 to try to reduce the statistical discrepancies. The results, so far, are a bit disappointing; only for sector S.11 the statistical discrepancy has been significantly reduced, by 20%, after the revision. Thus, this analysis is still ongoing, also for the remaining sectors.

* This template was last updated In October 2024.

1) Non-financial corporations (S.11); Deposit taking corporations (except the NCB) (S.122), Captive financial institutions (S.127); Households S.14; rest of the world (S.2).

2) Unlisted shares (F.512); MutualFund shares (F.52); Other accounts receivable other than trade credit (F.89).

Annex to C.2.2: Vertical discrepancies, summary table*

Size (=average absolute value for 2015 Q1 - 2023 Q4) of the quarterly statistical discrepancy DB.9 per subsector (in billion euro)

sector	size of DB.9 (billion euro)
S11	4,08
S121	0,10
S122	2,03
S123	0,42
S124	5,47
S125	1,25
S126	0,26
S127	10,38
S128	0,30
S129	0,04
S1311	0,61
S1313	0,16
S1314	0,05
S14	0,83
S15	0,16
S2	4,18

* This table was last updated In October 2024.