

# Quality report concerning statistics underlying the Macroeconomic Imbalance Procedure (MIP) indicators – level 3

# National self-assessment report on the quality of financial accounts for Germany

# INSTITUTIONAL ENVIRONMENT

# 1.1. CoP1 Professional Independence / PC1 Professional Independence

# 1.1.1 Legal basis

The Deutsche Bundesbank is responsible for producing the annual and quarterly financial accounts for Germany. The independence of the Deutsche Bundesbank is provided for by § 12 of the Deutsche Bundesbank Act, which states

"In exercising the powers conferred on it by this Act, the Deutsche Bundesbank shall be independent of and not subject to instructions from the Federal Government. As far as it is possible without prejudice to its tasks as part of the European System of Central Banks, it shall support the general economic policy of the Federal Government."

The independence of the Deutsche Bundesbank, 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 the ECB.

#### 1.1.2 Statistics work programme

The Deutsche Bundesbank has a statistical work programme which is not made public. As regards national financial accounts, the work is principally guided, at the European level, by the work programmes of both the ECB (<a href="https://www.ecb.europa.eu/stats/pdf/2017escbstatisticsworkprogramme.en.pdf">https://www.ecb.europa.eu/stats/pdf/2017escbstatisticsworkprogramme.en.pdf</a>) and Eurostat (<a href="http://ec.europa.eu/eurostat/web/ess/-/annual-work-programme-2018">http://ec.europa.eu/eurostat/web/ess/-/annual-work-programme-2018</a>), including the work programmes of the according working groups and task forces.

Moreover, the financial accounts section cooperates with the economists of the Bundesbank in order to ensure that German financial accounts data fit user needs at all times, if possible.

# 1.2. CoP2 Mandate for data collection/PC2 Mandate for data collection

#### 1.2.1 Allocation of responsibilities

National financial accounts for Germany are produced by the Deutsche Bundesbank, whereas national accounts are produced by the national statistical institute (NSI) of Germany (Statistisches Bundesamt). Both areas work closely together in order to ensure consistent and high quality data in line with international methodological standards.

#### 1.2.2 Legal basis

This close cooperation is formally settled by the Memorandum of Understanding between the Deutsche Bundesbank and the Statistische Bundesamt from 27 November 2014, which is publically available:

 $\frac{https://www.bundesbank.de/resource/blob/622452/607928e1af0a56a03c620202e65b5e65/mL/cooperation-agreement-between-the-bundesbank-data.pdf}{\label{fig:matchesource/blob/622452/607928e1af0a56a03c620202e65b5e65/mL/cooperation-agreement-between-the-bundesbank-data.pdf}$ 

Furthermore, the Deutsche Bundesbank, as part of the ESCB, is allocated the task by the Council Regulation 2533/98 to collect statistical information necessary to fulfil the tasks of the ESCB, such as the requirement to have comprehensive and reliable quarterly financial accounts, as stated in the Guideline ECB/2013/24. Annual financial accounts have to be compiled and transmitted to Eurostat by the Member States according to the Regulation 549/2013 of the European Parliament and of the Council.

#### 1.3. CoP6 Impartiality and objectivity / PC6 Impartiality and objectivity

#### 1.3.1 Advance release calendar

A release calendar for the publication of the quarterly financial accounts is available to the public on the Deutsche Bundesbank's website:

https://www.bundesbank.de/en/statistics/statistical-release-calender.

# 1.3.2 Revision policy

The results of the financial accounts are revised from time to time. Such adjustments, which are also implemented retroactively, are essentially made for any of three reasons. First, changes in the data of the primary statistics used are taken into consideration in this way. Revisions of this kind can become necessary due to changes in the source classification, definitions or changes in the classification of economic entities. Second, as the availability of suitable primary statistics changes over time, the additional inclusion of new or the replacement of previous data leads to revisions of the financial accounts. In order to ensure consistency between various statistical areas, revisions of these two kinds are in general applied as soon as the revised / new primary data become available and are deemed to fulfil all necessary requirements, respectively. Third, methodological changes in the financial accounts themselves – such as the recent conversion to the ESA 2010 – necessitate revisions. Revisions of this latter kind are implemented much more infrequently.

In order to ensure consistency between national and financial accounts, revisions of the financial accounts in general take into account the revision policy of the national accounts and other primary statistics. Hence, the revision policy advised by the CMFB is considered in an indirect manner only.

#### STATISTICAL PROCESSES

#### 2.1. CoP7 Sound methodology / PC7 Sound methodology

#### 2.1.1 General remarks

The Financial accounts of Germany are fully in line with the requirements of the European System of Accounts (ESA) 2010. Methodological aspects, major sources and methods are documented in the special statistical publication #4. This publication is updated every year and is available on the Deutsche Bundesbank's website:

https://www.bundesbank.de/en/publications/statistics/special-statistical-publications/special-statistical-publication-4.

#### 2.1.2 Residency

The application of the residence principles is in line with the requirements of ESA 2010.

# 2.1.3 Institutional unit definition

The compilation of financial accounts is based on institutional units as defined in ESA 2010.

#### 2.1.4 Sectorisation & sector delimitation

The sector classification is generally in line with the requirements of ESA 2010. Minor differences exist as regards the identification of holding companies and head offices, as access to the business register of the NSI for the Deutsche Bundesbank as well as the usability of this information for this purpose are still restricted for the time being. However, complementary information is considered, both publically and privately available, in order to apply ESA 2010 requirements.

#### 2.1.5 Instrument identification

Financial stocks and flows are defined and classified in line with the requirements of ESA 2010.

# 2.1.6 Valuation, including derivation of transactions and other flows

The valuation of financial stocks and transactions is in general in line with the requirements of ESA 2010 and, hence, market prices are applied. If market prices are not directly available, complementary information (e.g. prices of similar financial instruments, indices) is used in

order to estimate market prices. Where market prices are not applicable, nominal prices are used (e.g. for currency and deposits, loans). In most cases, original transactions, stocks and other flows are directly available from primary statistics (especially from securities and banking statistics). Exceptions are found only in some cases (or sectors), in which e.g. the valuation of listed shares is used for unlisted shares as well.

# 2.1.7 Time of recording (accrual accounting)

As regards deposits (stocks and transactions) and securities (transactions), interest and dividend income are recorded on an accrual basis. As regards the other financial instruments, accrued interests are not yet recorded inter alia due to insufficient primary data.

# 2.1.8 Coverage gaps

Stocks and transactions of securities held in custody with banks abroad are only partially recorded via the recording of foreign direct investments. It is intended to complement these data in the medium term with third party holdings, coming from the ECB / Bundesbank securities holdings statistics (SHS).

Employee stock options are not recorded either for the time being due to insufficient primary data.

As data on loans granted among non-financial corporations from the extrapolated results from financial statements of German enterprises are only available annually and with a considerable time lag, estimations for quarterisation and forecasting are applied. The estimated time series reflect the dynamics of a number of relevant enterprise-specific variables on a higher frequency likely to be related to inter-company lending. The estimated data cover a representative set of German enterprises and are compiled on a quarterly basis.

Furthermore, the recording of the composite other financial intermediaries sector is partly hampered by limited data availability in the main primary sources (both in terms of sector coverage and with respect to some instruments, particularly other equity). This is why in some cases additional balance sheet information of some sub-categories or some major corporations (both publicly and internally available) as well as selected data from financial vehicle statistics are used.

Other coverage gaps are in general of minor importance and mainly refer to an insufficient coverage of particular financial instruments (stocks, transactions and other flows). For instance, the coverage of non-listed shares as well as other equity is incomplete due to insufficient primary data. In some of those cases, minor estimations are applied in order to reduce the coverage gaps.

#### 2.1.9 Non-Consolidation / consolidation at sectoral level

In general, both non-consolidated and consolidated data for financial stocks and transactions are compiled. Consolidated data are compiled on the basis of non-consolidated data. That is, consolidation is done on the sub-sector level, if the necessary information for the financial instrument is available. The sum of these consolidated sub-sectors forms the consolidated sector; an additional consolidation of the interactions between the sub-sectors is so far only partially done. The data are also used for the compilation of the respective MIP indicators; no specific transformations are applied. It is foreseen to extend the consolidation in the medium-

term by incorporating additional primary data which have already or will become available in the foreseeable future.

# 2.1.10 Specific issues for instruments covered by MIP indicators

There are no relevant issues other than those mentioned under 2.1.4 and 2.1.8.

# 2.2. CoP8 Appropriate Statistical procedures / PC8 Appropriate Statistical procedures

#### 2.2.1 Data source map

As regards the data source map in the Annex on page 9, only the main data sources of each cell are mentioned. In many cases, more than one data source is used for the compilation. However, their meaning varies over time and, hence, we focussed on the main sources.

#### 2.2.2 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. Discrepancies that exist between individual data sources owing to the use of different methods in collecting data are compensated in part via the external account. A more comprehensive documentation of the methodologies can be drawn from the special statistical publication #4 (see above).

# 2.2.3 Estimation of missing data

As data on loans granted among non-financial corporations from the extrapolated results from financial statements of German enterprises are only available annually and with a considerable time lag, estimations for quarterisation and forecasting are applied. The estimated time series reflect the dynamics of a number of relevant enterprise-specific variables on a higher frequency likely to be related to inter-company lending. The estimated data cover a representative set of German enterprises and are compiled on a quarterly basis.

# 2.2.4 Balancing procedures (horizontal and vertical)

The consistency of instruments (horizontal consistency) and sectors (vertical consistency) is checked and ensured. In the case of vertical consistency, the consistency of the national accounts and financial accounts (sectoral balances) is verified by balancing the net lending / borrowing for many sectors on a regular basis. If necessary, other accounts receivable / payable (F.8) are adjusted in order to ensure vertical consistency.

#### 2.2.5 Methods to align quarterly and annual data

Annual financial accounts data are derived from quarterly data for the fourth quarter for stocks and the sum of flows over the respective year. As annual financial accounts data are not transmitted to Eurostat each quarter, differences may occur over time due to differences in data vintage.

# STATISTICAL OUTPUT

#### 3.1. CoP11 Relevance / PC11 Relevance

In general, financial accounts data are regularly and intensively used for economic analyses with various focuses. The Bundesbank itself uses the results of the financial accounts to, among other things, study the portfolio structure of non-banks within the context of monetary analysis. Moreover, knowledge of the financing structure and dynamics of non-banks as well as of the respective determinants is helpful with regard to monetary transmission. The Bundesbank's interest is mainly focused on the relationship between the credit operations of domestic banks on the one hand and sources of funding (such as securities markets, other financial intermediaries, insurance corporations and foreign lenders) on the other hand. Its aim is, inter alia, to uncover the links between the credit and securities markets. In this context, it also examines questions concerning the development and sustainability of (sectoral) debt. The Bundesbank – in addition to its business cycle analysis – looks at the pattern of asset acquisition and financing of enterprises and households, also in connection with real economic variables of the national accounts (especially capital formation and saving).

Furthermore, German financial accounts data are part of the Euro Area Accounts and, hence, are regularly used for monetary policy purposes. At the EU level, German financial accounts data are inter alia part of the macroeconomic imbalances procedure (MIP). Furthermore, the data are regularly analysed from a financial stability perspective, e.g. by the ESRB, in order to assess the vulnerability of and the financial interconnectedness within the economy.

At the international level, German financial accounts data are used in order to contribute to the IMF "Financial Soundness Indicators" as well as in order to provide sectoral balance sheets which are required by the IMF's Special Data Dissemination Standard Plus.

#### 3.2. CoP12 Accuracy and reliability / PC12 Accuracy and reliability (including stability)

# 3.2.1 Accuracy and reliability

The Deutsche Bundesbank regularly checks the accuracy and reliability of the financial accounts data. Comprehensive checks are part of the compilation process and, hence, are applied every quarter. These checks include all quantitative checks which are applied by the ECB and Eurostat (as far as known/available). Possible inconsistencies are discussed with colleagues from the according primary statistics, if applicable, in order to ensure consistency between all involved statistical areas. Furthermore, plausibility checks are applied from an economic perspective.

### 3.2.2 Internal consistency

In general, the number and extent of statistical discrepancies in the financial accounts of Germany is low since most of the primary statistics used are in line with ESA 2010 and, hence, apply comparable methodologies. If inconsistencies occur, they are mainly balanced via the external account (see 2.2.2). While annual data for the years 1995-1998 in some cases still display internal inconsistencies, most of the inconsistencies have been or will be resolved in the foreseeable future.

# 3.3. CoP13 Timeliness and punctuality / PC13 Timeliness (including punctuality)

# 3.3.1 National requirements

The publication of quarterly financial accounts data regularly occurs between t+100 and t+105 after the reference quarter. The concrete publication date is announced in advance (see A.3.1). The publication of annual data corresponds to the publication of data of the fourth quarter of a given year.

# 3.3.2 International requirements

Germany met all timeliness requirements from international institutions.

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.

# 3.4. CoP14 Coherence and comparability / PC14 Consistency and comparability

# 3.4.1 External consistency

The Deutsche Bundesbank and the Statistische Bundesamt (NSI) regularly reconcile their results in order to ensure consistency between the financial and non-financial accounts. In this regard, net lending/net borrowing for the sectors S.12, S.13 and S.14/15 are aligned on a quarterly basis. If adjustments of the financial accounts are necessary, they are exclusively done via the financial instrument other accounts receivable / payable (F.8) for the respective sectors (see B.2.4). An according counter entry is mainly applied to the external sector in order to come up with high quality data for domestic sectors. As a consequence, financial accounts may deviate from BoP/i.i.p.. Financial accounts data for the general government are fully consistent with QFAGG data.

# 3.4.2 "Time" and back data consistency

In general, German financial accounts data are fully in line with ESA 2010. From 1999 onwards, data are available on a quarterly basis. There are no structural breaks related to changing methodologies from 1999 onwards. There are, however, changes in the compilation of financial instruments, particularly of securities. From 2006 onwards, this compilation is mainly based on securities holdings statistics for all sectors, whereas other sources and

methods have been used in order to compile the respective data for the years 1999 to 2005 according to ESA 2010. Hence, there is a structural break in almost all series which refer to stocks and transactions of securities in 2006Q1. However, these breaks are in most cases of minor importance only.

For the years 1995 to 1998, financial accounts data according to ESA 2010 for the time being are only available on an annual basis. As regards this time period, structural breaks still apply due to insufficient primary data.

# 3.4.3 Consistency across frequencies

In general, there are no inconsistencies between quarterly and annual financial accounts data since annual data are derived from quarterly data. However, inconsistencies between the annual data transmitted to Eurostat (and therefore OECD) and the quarterly data might occur as a result of timing differences since annual financial accounts, which regularly change during the compilation of quarterly financial accounts data, are not transmitted to Eurostat each quarter.

# 3.5. CoP15 Accessibility and Clarity / PC15 Accessibility and Clarity

#### 3.5.1 Data

National financial accounts data are published on the website of the Deutsche Bundesbank: <a href="https://www.bundesbank.de/dynamic/action/en/statistics/time-series-databases/time-series-databases/743796/743796?treeAnchor=GESAMT&statisticType=BBK\_ITS&openNod\_eId=1154410.">https://www.bundesbank.de/dynamic/action/en/statistics/time-series-databases/time-series-databases/743796/743796?treeAnchor=GESAMT&statisticType=BBK\_ITS&openNod\_eId=1154410.</a>

A selected fraction of financial accounts data are also published in the statistical annex of the monthly report of the Deutsche Bundesbank, which is also available online: <a href="https://www.bundesbank.de/en/publications/reports/monthly-reports">https://www.bundesbank.de/en/publications/reports/monthly-reports</a>.

Furthermore, the special statistical publication #4 contains comprehensive tables with annual financial accounts data for the main sectors. This publication is also available online: <a href="https://www.bundesbank.de/en/publications/statistics/special-statistical-publications/special-statistical-publication-4">https://www.bundesbank.de/en/publications/statistics/special-statistical-publications/special-statistical-publication-4</a>.

On an international level, German financial accounts data are inter alia available at the ECB, Eurostat as well as the OECD.

#### 3.5.2 Metadata

The special statistical publication #4 provides information on the compilation and data sources of German financial accounts (<a href="https://www.bundesbank.de/en/publications/statistics/special-statistical-publications/special-statistical-publication-4">https://www.bundesbank.de/en/publications/statistics/special-statistical-publications/special-statistical-publication-4</a>). More detailed metadata are currently not published on a regular basis.

#### 3.5.3 Contact

Please direct your inquiries to FinR\_Gruppe@bundesbank.de.

# ANNEX TO 2.2: 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
		NFCs	MFIs	IFs	OFIs	IC	PF	Gov	HH+ NPISH	RoW	NFCs	MFIs	IFs	OFIs	IC	PF	Gov	HH+ NPISHs	RoW
F11	Monetary gold		MFI					0		*		0							0
F12	SDRs		MFI					0		*		0					0		0
F21	Currency	е	MFI	0	OFI	Sup	Sup	QFAGG	**	ВоР		MFI					MFI		MFI
F22	Deposits, transferable	MFI	MFI	IF	ВоР	MFI	MFI	QFAGG	MFI	MFI	0	MFI					QFAGG		BoP
F29	Deposits, other	MFI	MFI	IF	ВоР	MFI	MFI	QFAGG	MFI	MFI	0	MFI					0		ВоР
F3	Debt securities	SHS	MFI	IF	SHS	Sup	SHS	QFAGG	SHS	**	SEC	MFI	0	SEC	SEC	SEC	QFAGG	na	*
F4	Loans	NFC	MFI	IF	ВоР	Sup	Sup	QFAGG	na	BoP	MFI		IF	MFI	Sup	Sup	QFAGG	MFI	BoP
F511	Listed shares	SHS	SHS	IF	SHS	SHS	SHS	QFAGG	SHS	**	SEC	SEC	0	SEC	SEC	SEC	0	0	*
F512	Unlisted shares	**	MFI	na	SHS	BoP	Sup	QFAGG	е	na	*	SEC, M FI	na	SEC	SEC	na	0	0	BoP
F519	Other equity	**	MFI	IF	NFC	Sup	Sup	QFAGG	е	ВоР	ВоР	MFI	0	OFI	na	na	0	na	BoP
F52	Investment fund shares/units	SHS	SHS	IF	SHS	SHS	SHS	QFAGG	SHS	**		IF	IF						
F61	Non-life insurance techn. res.	Sup	na		na	Sup	Sup	QFAGG	Sup	Sup					Sup				na
F62	Life insurance and annuities								Sup	Sup					Sup				na
F63-F65	Pension entitlements	0	0		0	0	0	0	Sup	na	NSI	NSI		NSI	NSI	Sup	na	na	na
F66	Standardised guarantees	na	QFAGG	na	na	na	na	na	na	na					na		QFAGG		na
F7	Financial derivatives	**	MFI	IF	Sup	IC	IC	QFAGG	na	ВоР	Sup	MFI	IF	Sup	Sup	IC	QFAGG	Sup	BoP
F81	Trade credits and advances	NFC	na	na	e^^	na	na	na	na	ВоР	NFC	na	na	e^^	na	na	na	na	BoP
F89	Other accounts excl. F81	*##	MFI	IF##	OFI	Sup	Sup	QFAGG##	Sup,##	BoP	*	M FI,##	IF	OFI##	Sup ##	Sup ##	QFAGG	Sup	MFI

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

<sup>\*\*</sup> 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:

M estimation based on information from non-financial corporation balance sheets.

Key for data sources and calculation/estimations:						
NFC	Non-financial corporation balance sheets					
MFI	MFI balance sheet statistics					
IF	Investment fund 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)					
е	estimate					
na	not available, estimation not meaningful					
NSI	National Statistical Institute					