



EUROPEAN CENTRAL BANK

EUROSYSTEM

Manual on MFI balance sheet statistics

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1 Aim of this Manual

The MFI balance sheet was designed principally for the production of aggregates for analysing euro area developments. Sectorisation of counterparties covers both domestic positions and positions with residents of other euro area countries. The ECB nets out reported inter-MFI positions across the euro area to obtain a “consolidated” balance sheet of the MFI sector. This is the main source for the euro area monetary aggregates and counterparts. The MFI balance sheet is also used to derive the Eurosystem’s minimum reserve requirements for credit institutions.

Article 5 of the Protocol on the Statute of the European System of Central Banks and of the European Central Bank (Statute of the ESCB) requires the ECB to collect the statistical information necessary to carry out its functions. The relevant Union legislation setting a framework for the ECB’s statistical work is Regulation (EC) No 2533/98¹. To carry out the functions of the Eurosystem the ECB may, subject to constraints imposed by Union legislation, adopt legal instruments that have a direct effect on certain legal and natural persons resident in the euro area.

For the purposes of MFI balance sheet statistics, these legal instruments include an ECB regulation concerning the balance sheet of the monetary financial institutions sector (currently Regulation ECB/2013/33²), which sets out the ECB’s statistical requirements for MFIs.³ Regulations are binding on the entities to which they are addressed, and are directly applicable, meaning that they do not need to be transposed into national law. The ECB has also adopted a guideline on monetary and financial statistics (currently Guideline ECB/2014/15⁴) which is binding on members of the Eurosystem, including on the ECB itself.⁵ Statistical guidelines instruct central banks on which data must be submitted to the ECB (by when, in what format, etc.). Where the relevant statistics are not covered by a regulation, a guideline informs euro area central banks of the ECB’s requirements, leaving some discretion as to the choice of source for the data, provided that certain standards are met. The underlying concepts are those set out in international statistical standards, namely the world System of National Accounts (latest version SNA 2008) and the

¹ Council Regulation (EC) No 2533/98 of 23 November 1998 concerning the collection of statistical information by the European Central Bank (OJ L 318, 27.11.1998, p 8).

² Regulation (EU) No 1071/2013 of the European Central Bank of 24 September 2013 concerning the balance sheet of the monetary financial institutions sector (recast) (ECB/2013/33) (OJ L 297, 7.11.2013, p. 1).

³ To compile monetary aggregates and their counterparts for the euro area, the Eurosystem also collects data from post office giro institutions and data on central government monetary liabilities, which are significant in some countries. These are collected under Regulation (EU) No 1074/2013 of the ECB of 18 October 2013 on statistical reporting requirements for post office giro institutions that receive deposits from non- monetary financial institution euro area residents (recast) (ECB/2013/39) (OJ L 297, 7.11.2013, p. 94) and Guideline ECB/2014/15.

⁴ Guideline of the European Central Bank of 4 April 2014 on monetary and financial statistics (recast) (ECB/2014/15) (OJ L 340, 26.11.2014, p.1).

⁵ NCBs and the ECB derive the required statistical information concerning their own balance sheets from their own accounting systems in accordance with the indications provided in the bridging tables between the accounting and the statistical balance sheet published on the [ECB's website](#).

European System of Accounts (ESA 2010)⁶. As the European counterpart to the SNA 2008, the ESA 2010 is broadly consistent with regard to the definitions and classifications used in the worldwide guidelines, apart from certain differences in presentation and a higher degree of precision for some of the ESA 2010 concepts used for specific EU purposes.

Other relevant legal instruments include ECB decisions. A decision is binding in its entirety on the addressee, and its purpose is to ensure the performance of the ESCB's tasks. The non-compliance framework for MFI balance sheet statistics is laid out in an ECB decision (discussed further in Chapter 10).

In contrast, this Manual contains no additional requirements to those included in Regulation ECB/2013/33 and Guideline ECB/2014/15, and has no binding legal status. It provides guidance on the preferred approach agreed among central bank statisticians where international statistical standards remain open or are not sufficiently precise, and supplements the information contained in the ECB legal acts. It has a number of aims. In particular, it provides statisticians in central banks with a comprehensive reference source on the requirements of ECB legislation relating to MFI balance sheet statistics. It also contains various supplementary explanations and recommendations to help with the implementation of the requirements and thereby further improve the comparability of the statistics. Statisticians in government statistical offices and European and international organisations may use the Manual in their own statistical work, and it may also help the suppliers of the underlying micro data in MFIs to understand how their work is used and why the requirements take the form they do. Users of the data, in central banks and elsewhere, may benefit from knowing more about the conceptual basis of the data they analyse and use, and what is done to the raw information to make it usable for policy purposes. This is a wide audience, and the Manual seeks to explain technical issues in a way that the interested but non-specialist reader can understand, while also satisfying specialist needs.

This Manual is composed of 10 chapters. Chapter 2 covers general concepts and definitions for the purposes of MFI balance sheet statistics, including the reporting population and accounting principles. Chapter 3 focuses on the ECB's reporting requirements at various frequencies, including statistical requirements in relation to electronic money institutions (ELMIs), post office giro institutions (POGIs) and central governments. Chapter 4 details the individual instrument categories and gives guidance on the treatment of specific products and cases. Chapter 5 includes a detailed discussion on the derivation of transactions data. Chapter 6 covers procedures and technical issues relating to the provision of data to the ECB.

Chapters 7 to 10 focus to a large extent on the statistical compilation that the ECB carries out on the basis of the data sent to it by the national central banks (NCBs). The euro area MFI balance sheet statistical dataset which the ECB publishes on a monthly basis is not the result of a simple aggregation of national statistics –

⁶ Regulation (EU) No 549/2013 of the European Parliament and of the Council of 21 May 2013 on the European system of national and regional accounts in the European Union (OJ L 174, 26.6.2013, p.1).

Chapter 7 discusses these aspects in detail. The derivation of the monetary aggregates and their counterparts for the euro area is presented, focusing among other things on the relationship between national contributions and euro area aggregates. The chapter also includes a brief description of the seasonal adjustment procedures adopted by the ECB, alongside adjustments made for operations such as cash pooling and loan sales and securitisations. Chapter 8 then turns to the links between MFI balance sheet data and other domains, such as how MFI balance sheet statistics are used to derive the Eurosystem's minimum reserve requirements. Several other statistical uses are presented, notably input to quarterly financial accounts and the euro area balance of payments. There is also a brief discussion of links to other frameworks such as security-by-security reporting, analytical credit datasets (AnaCredit) and supervisory reporting (e.g. FINREP). To conclude, Chapter 9 reviews the principles underlying the preservation of confidentiality when exchanging and publishing data, while Chapter 10 describes the compliance regime applicable in the (exceptional) event that MFIs fail to comply with the reporting requirements for MFI balance sheet statistics.

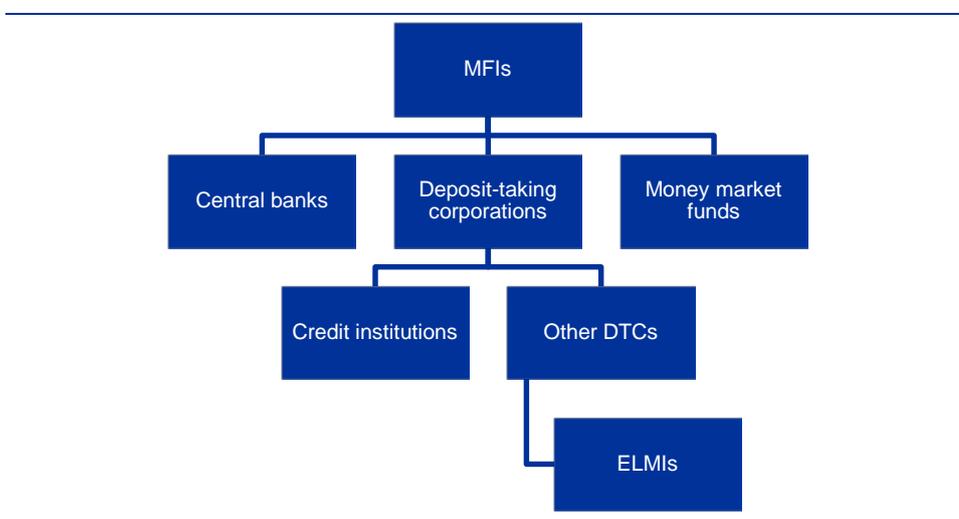
This area of statistics is broad and rather complex. Data can only be aggregated if definitions, concepts, valuations and other accounting practices are sufficiently comparable across countries. The compilation process also entails the derivation of transaction flows (on which growth rates of monetary aggregates and their counterparts are based), mainly from the outstanding balance sheet amounts reported by MFIs. MFI balance sheet data are linked not only to interest rates reported by MFIs, but also to data reported by investment funds and financial vehicle corporations under separate ECB legislation. In particular, data reported by money market funds and investment funds together provide an account of the business carried out by collective investment undertakings (CIUs) in the euro area, while data on financial vehicle corporations are important because they complement the information reported by MFIs for the purposes of securitisation statistics. MFI balance sheet data are also used as an input to the quarterly integrated economic and financial accounts for the euro area compiled by the ECB and Eurostat, and are combined with monthly balance of payments statistics to enable monetary and balance of payments developments to be analysed together in a monetary presentation of the balance of payments.

2 General concepts and definitions

2.1 Monetary financial institutions (MFIs)

The principal aim of the definition of the MFI sector for statistical purposes is to provide the ECB with a comprehensive statistical picture of monetary developments in the euro area. For this purpose, the ECB defines MFIs in Article 1 of Regulation ECB/2013/33⁷ as central banks and other MFIs which comprise credit institutions, deposit-taking corporations other than credit institutions, and money market funds.

Figure 1
Hierarchy of classification of MFIs



2.1.1 Credit institutions

Credit institutions are defined in Article 4(1)(1) of the Capital Requirements Regulation (CRR)⁸ as undertakings whose business is to take deposits or other repayable funds from the public and to grant credits for their own account. Other repayable funds may also include proceeds from the sale of bank bonds to the public. All credit institutions within the meaning of the Capital Requirements Directive (CRD IV)⁹ are MFIs. Institutions that are excluded from the scope of the CRD IV may still be considered to be subject to the Eurosystem statistical reporting and minimum

⁷ Regulation (EU) No 1071/2013 of the European Central Bank of 24 September 2013 concerning the balance sheet of the monetary financial institutions sector (recast) (OJ L 297, 7.11.2013, p. 1).

⁸ Regulation (EU) No 575/2013 of the European Parliament and of the Council of 26 June 2013 on prudential requirements for credit institutions and investment firms and amending Regulation (EU) No 648/2012 (OJ L 176, 27.6.2013, p. 1).

⁹ Directive 2013/36/EU of the European Parliament and of the Council of 26 June 2013 on access to the activity of credit institutions and the prudential supervision of credit institutions and investment firms, amending Directive 2002/87/EC and repealing Directives 2006/48/EC and 2006/49/EC (OJ L 176, 27.6.2013, p. 338).

reserves legal frameworks provided they fulfil the criteria of Regulation ECB/2003/9¹⁰.

2.1.2 Deposit-taking corporations other than credit institutions

Deposit-taking corporations other than credit institutions include certain financial institutions which are principally engaged in financial intermediation and whose business is (i) to receive deposits and/or close substitutes for deposits from entities other than MFIs; and (ii) for their own account, at least in economic terms, to grant credits and/or make investments in securities. Substitutability for deposits is determined by the liquidity of the liability instrument concerned, combining the characteristics of transferability, convertibility, certainty and marketability, and having regard, where appropriate, to its term of issue (initial or original maturity). These characteristics are further explained in Part 1 of Annex I to Regulation ECB/2013/33. Certain electronic money institutions are also deposit-taking corporations other than credit institutions.

2.1.2.1 Electronic money institutions (ELMIs)

ELMIs are defined in Article 2(1) of European Parliament and Council Directive 2009/110/EC.¹¹ Broadly, they are entities authorised to issue electronic money, which is electronically or magnetically stored monetary value as represented by a claim on the issuer and which may be used to make payments to a variety of other entities. Directive 2009/110/EC removed ELMIs from the scope of the Union law definition of “credit institutions”. However, following its update in 2011, Article 1(1)(a)(ii) of Regulation ECB/2013/33 makes it clear that ELMIs remain within the MFI sector if they are principally engaged in financial intermediation in the form of issuing electronic money. Under Directive 2009/110/EC, monetary value stored on specific prepaid instruments does not represent electronic money if the instruments are designed to address precise needs and can be used only in a limited way. This is because they allow the electronic money holder to purchase goods or services only on the premises of the electronic money issuer or within a limited network of service providers under direct commercial agreement with a professional issuer, or because they can be used only to acquire a limited range of goods or services.

¹⁰ Regulation (EC) No 1745/2003 of the European Central Bank of 12 September 2003 on the application of minimum reserves (ECB/2003/9) (OJ L 250, 2.10.2003, p. 10).

¹¹ Directive 2009/110/EC of the European Parliament and of the Council of 16 September 2009 on the taking up, pursuit and prudential supervision of the business of electronic money institutions amending Directives 2005/60/EC and 2006/48/EC and repealing Directive 2000/46/EC (OJ L 267, 10.10.2009, p. 7).

2.1.3 Money market funds (MMFs)

MMFs are defined in Article 2 of Regulation ECB/2013/33 as (collective investment undertakings (CIUs)¹² that (i) pursue the investment objective of maintaining the principal value of the fund and providing a return in line with interest rates on money market instruments; (ii) invest in money market instruments which comply with the criteria for money market instruments set out in Directive 2009/65/EC, or in deposits with credit institutions or, alternatively, ensure that the liquidity and valuation of the portfolio in which they invest is assessed on an equivalent basis; and (iii) ensure that the money market instruments they invest in are of high quality, as determined by the management company. Article 2 of the Regulation presents a number of additional identification criteria which MMFs should meet, while Part 1, Section 2 of Annex I provides further guidance on identifying them. The criteria for identifying MMFs in the Regulation are generally in line with the criteria for supervisory purposes.¹³

2.2 Residence and institutional units

Regulation ECB/2013/33 refers to the concept of residence as defined in Article 1 of Regulation (EC) No 2533/98¹⁴: “resident’ and ‘residing’ shall mean having a centre of economic interest in the economic territory of a country”, which is also the ESA 2010 definition. In accordance with this definition, Regulation (EC) No 2533/98 also indicates that for the compilation of euro area statistics “‘cross-border positions’ and ‘cross-border transactions’ shall mean respectively positions and transactions in the assets and/or liabilities of residents of participating Member States seen as one economic territory vis-à-vis residents of non-participating Member States and/or residents of third countries”.

In explaining residence further, the ESA 2010 defines “resident units” of a country as “those which are resident” and have their “centre of predominant economic interest in the economic territory of that country” (2.04) and further states that “Centre of predominant economic interest indicates that a location exists within the economic territory of a country where a unit engages in economic activities and transactions on a significant scale” (2.07). The notion of “centre of predominant economic interest” also includes special-purpose entities (SPEs) which are registered or incorporated in a country, even if they have little or no presence there. ESA 2010 (2.07) states that “In the absence of any physical dimension to an enterprise, (...) residence is determined according to the economic territory under whose laws the enterprise is incorporated or registered”.

¹² CIUs are undertakings, the sole object of which is the collective investment of capital raised from the public and the units of which are, at the request of the holders, repurchased or redeemed directly or indirectly out of the undertaking’s assets.

¹³ The criteria are based on the guidelines on a common definition of European MMFs issued on 19 May 2010 by the Committee of European Securities Regulators (CESR), the predecessor of the European Securities and Markets Authority (ESMA). In the supervisory sphere, these guidelines have been superseded by Regulation (EU) 2017/1131 of the European Parliament and of the Council of 14 June 2017 on money market funds (OJ L 169, 30.6.2017, p. 8).

¹⁴ Council Regulation (EC) No 2533/98 of 23 November 1998 concerning the collection of statistical information by the European Central Bank (OJ L 318, 27.11.1998, p 8).

Resident credit institutions include resident branches¹⁵ that have their head office abroad, but exclude foreign branches of resident institutions. Similarly, MMFs resident in the euro area but managed from outside the euro area are part of the reporting population, while the statistics do not cover MMFs established in offshore locations outside the euro area even if their management companies are resident in the euro area.

Institutional units are defined in the ESA 2010 as “economic entities that are capable of owning goods and assets, of incurring liabilities and of engaging in economic activities and transactions with other units in their own right” (1.57). All institutional units are grouped into institutional sectors (see below), with no unit in more than one sector.

2.3 Institutional sectors

2.3.1 MFI sector

The MFI sector is defined by the ECB in Article 1 of Regulation ECB/2013/33, and corresponds to the ESA 2010 sub-sectors central banks (S.121), deposit-taking corporations except the central bank (S.122) and MMFs (S.123). Regulation ECB/2013/33 requires MFIs’ counterparties to be allocated to sectors, as set out in Part 3 of Annex II to the Regulation.

2.3.2 Non-MFI sectors

Excluding MFIs themselves, institutional units are classified as follows in the ESA 2010:

- Non-financial corporations (S.11 – entities engaged in the production of goods and non-financial services for the market).
- Non-monetary financial corporations (S.12, excluding MFIs), comprising non-MMF investment funds (S.124), other financial intermediaries except insurance corporations and pension funds (OFIs) (S.125), financial auxiliaries (S.126), captive financial institutions and money lenders (S.127), insurance corporations (S.128) and pension funds (S.129). For the purposes of reporting to the ECB, the following sectors are grouped together: other financial intermediaries except insurance corporations and pension funds (OFIs), financial auxiliaries, captive financial institutions and money lenders (S.125 + S.126 + S.127).

¹⁵ As defined in Article 4(1)(17) of the CRR, “branch” means a place of business which forms a legally dependent part of an institution and which carries out directly all or some of the transactions inherent in the business of institutions.

- General government (S.13 – entities which are principally engaged in the production of non-market goods and services intended for individual and collective consumption, and/or in the redistribution of national income and wealth), comprising central government (S.1311), state government (S.1312), local government (S.1313) and social security funds (S.1314).
- Households (S.14), comprising individuals and many unincorporated businesses; for the purposes of reporting to the ECB, households are grouped together with non-profit institutions serving households (S.15), consisting of non-profit institutions which are separate legal entities, which serve households and which are private non-market producers.
- There is also the “rest of the world” sector (S.2), comprising all non-resident entities.

2.3.3 EU institutions and other bodies and international organisations

Most EU institutions and other bodies and international organisations are classified as non-resident general government entities under the “rest of the world” sector, for both national and euro area statistics, regardless of their physical location. However, exceptions exist for a number of international organisations with banking-type operations.

- The ECB is classified as a central bank in the MFI sector of the euro area, and although not resident in any individual Member State is classified as an MFI resident in Germany for the purposes of geographic allocation within the reporting scheme for MFI balance sheet statistics.
- The European Investment Bank (EIB) is classified as an OFI in the ESA 2010 and is treated as constituting an economic territory on its own outside the euro area but within the EU, i.e. under the “rest of the world” sector. However, the EIB has been granted the status of eligible counterparty in the Eurosystem’s refinancing operations and is therefore treated for operational purposes as a credit institution resident in the euro area. It has thus been included in the list of MFIs published by the ECB and is subject to reserve base statistics reporting. Credit institutions in the euro area may deduct any liabilities to the EIB from their reserve base for the purposes of the Eurosystem’s minimum reserve requirement (the use of MFI balance sheet data for calculating the reserve base is discussed in Section 8.1). In the balance sheet returns submitted by MFIs to NCBs under Regulation ECB/2013/33, the NCBs may choose between requiring MFIs (i) to continue treating the EIB as a non-bank resident in the rest of the world, or (ii) to treat the EIB as a credit institution resident in the euro area. In the data which the NCBs transmit to the ECB, however, the EIB must be treated as a non-bank resident in the rest of the world.
- The European Stability Mechanism is treated statistically as an OFI resident in the euro area but not in any individual euro area Member State and therefore constitutes an economic territory on its own. The European Financial Stability

Fund is classified as an OFI resident in the euro area, specifically in Luxembourg, for statistical purposes.

- The Single Resolution Fund (SRF) is considered to be part of the Single Resolution Board (SRB) and not a separate institutional unit. The SRB is classified as an institutional unit resident in the EU but not in the euro area. It is classified in the same way as most other EU institutions, i.e. as a general government entity (part of central government) within the “rest of the world” sector.

Financial transactions or positions between EU institutions (excluding the exceptions listed above) and entities in the euro area are thus treated in both national statistics and euro area aggregates as transactions or positions with the rest of the world. MFI balance sheet data are used to compile aggregates for the euro area as a whole, therefore Regulation ECB/2013/33 requires MFIs resident in the euro area to provide a sector classification of business with both domestic counterparties and counterparties resident in other euro area countries.¹⁶ Categories are merged for some purposes, but the Regulation sometimes requires sectors to be further subdivided (for instance, central counterparties and financial vehicle corporations must be identified within the merged S.125/S.126/S.127, and sole proprietors/unincorporated partnerships within S.14/S.15). Business conducted with counterparties resident outside the euro area is reported at a more aggregated level.

2.4 Transactions, revaluation adjustments and other changes

The ESA 2010 defines a **transaction** as “*an economic flow that is an interaction between institutional units by mutual agreement or an action within an institutional unit that it is useful to treat as a transaction, often because the unit is acting in two different capacities*” (1.66). It goes on to define financial transactions as those “*which describe the net acquisition of financial assets or the net incurrence of liabilities for each type of financial instrument. Such transactions occur both as counterparts of non-financial transactions, and as transactions involving only financial instruments*” (1.66(c)).

It is clear that taking or repaying a deposit, granting a loan or receiving repayment, buying or selling a security (or relinquishing it on redemption) are all transactions, since they represent interactions between units by agreement. Debt forgiveness, where mutually agreed between two institutional units, is also a transaction, as are other forms of capital transfer which may take the form of, for example, a transfer of financial assets free of charge or for a payment below market price. However, other events which do not represent an interaction between institutional units by mutual agreement may affect the total amount of assets and liabilities recorded on MFI balance sheets or their disposition among balance sheet categories, such as

¹⁶ Including with the SPEs mentioned in the previous section on residence. As with all other entities, MFIs should classify their business with SPEs according to the entity's main activity. If it is financial, the SPE should be classified in S.12 (probably S.125), if the SPE (for example) holds licences or engages in trading/merchandise activities, it should be classified in S.11.

changes in the prices of securities, write-offs of loans arising from defaults (as opposed to debt forgiveness), reclassification of instruments or changes in the residence or sector of counterparties. The ESA treats such events not as transactions but as other (meaning non-transactional) flows and records them in the **revaluation account** (comprising the effect of price and other valuation changes) and in the **other changes in volume of assets account** (ESA 2010, 20.141).

The distinction between transactions and other influences on balance sheet levels is also critical in MFI balance sheet statistics. Under Regulation ECB/2013/33, in addition to balance sheet levels MFIs also report valuation changes (revaluation adjustments) for certain balance sheet items at least (minimum requirement). Article 3 of Guideline ECB/2014/15 requires NCBs to report these revaluation adjustments to the ECB, supplemented by other information on valuation changes if necessary, together with information on reclassifications and other non-transactional factors (reclassification adjustments). In addition to changes in business structure (e.g. in the sector classification of counterparties, etc.), reclassification adjustments may include adjustments to prevent revisions from causing a break in the series between the first corrected and last uncorrected observation, since such a break would distort the growth rate of the item concerned. In addition, the ECB itself corrects aggregated MFI balance sheets for the effect of exchange rate changes.¹⁷ All these adjustments are subject to the same double-entry accounting system as stocks and transactions: adjustments therefore always have a counterpart, which will often be “capital and reserves” or “remaining liabilities” depending on the operation or the national accounting rules.

Chapter 5 and Section 7.2 explain how these adjustments are made and transactions derived (or, as in some Member States, how transactions are reported directly and valuation effects derived as a residual).

All **growth rates**¹⁸ of monetary aggregates and counterpart information derived from MFI balance sheet data are based on transactions which, in line with the ESA 2010, are not calculated exclusively from changes in balance sheet levels. In practice, however, MFI statistics, as required under Regulation ECB/2013/33 and Guideline ECB/2014/15, depart somewhat from the requirements (or at least from the preferred treatment) in the ESA. For example, MFI balance sheet statistics treat write-offs and write-downs without mutual agreement as revaluations, whereas in the ESA 2010 such unilateral operations by the creditor are regarded as “other changes in the volume of assets”.¹⁹ A more important departure from the ESA 2010 concerns the treatment of accrued interest. Whereas the ESA prefers accrued interest to be recorded in the instrument category, the MFI balance sheet Regulation requires it to be recorded in “remaining assets” or “remaining liabilities” to prevent accrued interest being included in the monetary aggregates until it is paid out or charged (see also

¹⁷ Unless the NCBs provide more precise information on exchange rate adjustments.

¹⁸ For a detailed description of the methodology underlying the derivation of growth rates in MFI balance sheet statistics, see Section 7.3.

¹⁹ In more detail, the ESA 2010 makes a distinction between write-offs/write-downs, which are regarded as “other changes in volume” (6.14b), and, in the case of the sale of loans, the difference between the selling price and the initial transaction price, which should be treated as a revaluation (6.58).

Section 2.5.2 below). The concepts and the critical distinction between transactions and other influences on balance sheet levels are the same, however.

2.5 Accounting principles in statistical reporting

2.5.1 General valuation principles

Article 8 of Regulation ECB/2013/33 lays down the relevant accounting principles for the purposes of statistical reporting. The following presents a general summary of applicable valuation principles accepted in MFI balance sheet statistics. Further detail on the valuation and accounting principles of individual asset and liability items is presented in Chapter 4.

Deposits and loans are to be reported at the principal amount outstanding, excluding amounts written off or written down, as in the ESA 2010. While loans should be reported gross of provisions, a few NCBs allow the reporting of loans net of provisions and the reporting of purchased loans at the price agreed at the time of their acquisition, in line with long-standing statistical reporting practices of MFIs. This is permitted by the Regulation provided that such reporting practices are applied by all resident reporting MFIs. Deposit liabilities and loans must not be netted against each other or against any other assets or liabilities. More broadly, Article 8 states that, without prejudice to accounting practices and netting arrangements prevailing in Member States, all financial assets and liabilities must be reported on a gross basis. This requirement conforms to the gross recording approach in the ESA 2010 (1.110).

One exception to the rule of gross recording is the treatment of **holdings of own instruments issued**. For the purposes of MFI balance sheet statistics, holdings of own instruments issued (holdings of own shares and other securities issued by the MFI) should be recorded on a net basis (i.e. the holding and the liability should not be recorded gross on separate sides of the balance sheet), as in the ESA 2010 (5.30). Guideline ECB/2014/15 requires NCBs to transmit data on MFIs' holdings of own securities issued. Gross recording of holdings of own instruments issued is permitted only if this is required by local accounting rules, however this does not appear to be widely practised. If gross recording is applied, holdings of own instruments should be classified under the relevant instrument category and not under the balance sheet item "remaining assets". The netting treatment is strongly recommended, as the level of own holdings may not be negligible under certain market conditions.

The valuation and treatment of **other balance sheet items** are covered by Article 8 of Regulation ECB/2013/33, which requires MFIs to follow the rules laid down in the national transposition of Council Directive 86/635/EEC on the annual accounts and consolidated accounts of banks and other financial institutions, as well as any other international standards applicable. While Part 11, Section 2 of Annex II to Guideline ECB/2014/15 expresses a preference for market valuation, it recognises that valuation practices for securities and other assets and liabilities may vary. In addition

to market valuation, which is the general requirement of the ESA 2010 and other international statistical and accounting practices, acquisition value and the lower of market price and acquisition value can be used. The Guideline accepts this as long as the book value does not diverge significantly from the market value. In this respect, the revaluation adjustments reported by euro area MFIs in different countries also reflect the impact of different national accounting practices and accordingly avoid distortions when transactions data are compiled. Efforts are being made to standardise the valuation practices for MFI debt securities towards market prices.

With specific regard to **statistical reporting by central banks** (S.121), Guideline ECB/2014/15 states that NCBs and the ECB itself should follow the harmonised accounting rules in Guideline ECB/2010/20 in their statistical reporting. There are limited exceptions: NCBs are required for statistical purposes to revalue their securities portfolio on a monthly rather than quarterly basis (see also Section 4.5.2), intra-Eurosystem positions are to be reported on a gross basis (not on a net basis), revaluation accounts are to be reported on a net basis (not on a gross basis) and unrealised losses are to be reported under “other assets”.

Transactions are recorded net within each instrument and sector category, in the sense that loans extended are net of repayments, purchases of securities are net of sales, etc. As such, the data do not measure gross financial transactions or turnover, which is consistent with the ESA 2010. Another provision of the ESA 2010 applied to MFI balance sheet statistics is that financial transactions are recorded at the transaction value (5.19), which may not necessarily be the same as the price quoted in the market at the time of the transaction (5.21). The transaction value excludes charges, fees, commissions, etc., which are treated as separate transactions in services (5.22). How transactions data are compiled in practice is explained in Chapter 5 and in Section 7.2.

2.5.2 Accrued interest

Since the data are mainly used for monetary analysis, the treatment of accrued interest in MFI balance sheet statistics departs (at least for deposits and loans) from the ESA 2010, which prefers accrued interest to be recorded in the relevant instrument category (5.242).²⁰ This implies that accrual of interest shows as a transaction in the instrument concerned, matching the entry under interest income in the non-financial accounts. Regulation ECB/2013/33, by contrast, requires accrued interest on deposits and loans to be recorded in “remaining liabilities” or “remaining assets”. The Regulation contains no rule on the treatment of accrued interest on securities issued or held by MFIs. In the interests of coherent data, Part 3 of Annex IV to Guideline ECB/2014/15 suggests that accrued interest which is intrinsic to the accounting price as reported on the MFI balance sheet should be subject to a revaluation adjustment, while accrued interest which is excluded from the reported

²⁰ In the balance of payments and international investment position, accruals are recorded in the relevant instrument category.

value of the securities to which it relates should be classified under “remaining liabilities” or “remaining assets” and not treated as a revaluation adjustment. In neither case would the accrual of interest be recorded as a transaction in the security concerned.

2.5.3 Reference date for balance sheet data

End-of-month and end-of-quarter balance sheet data should refer to the last calendar day. If this is not possible, data relating to the last working day should be used, in accordance with national market or accounting rules.

Where the last working day is used, if regional holidays fall at the end of the month or quarter, countries may adopt the last working day in the region(s) or the last common working day in the country as the reference date. Where the last working day is used, but the last calendar day falls on a weekend or a public holiday, countries should preferably attribute any business on that and any preceding non-working day(s) to that reference month or quarter. It is acceptable, however, to attribute the business to the first working day of the next month or quarter.

2.5.4 Conversion of balances in foreign currencies

In accordance with ESA 2010 (6.64), items denominated in foreign currencies should be converted into euro at market exchange rates prevailing on the date to which the data relate. ECB reference exchange rates should be used.²¹

If data relate not to the last calendar day but to an earlier working day, the last ECB reference rates of the reference month or quarter should preferably be used.²² It is acceptable, however, to use the ECB reference rates relating to that last working day.

2.5.5 Consolidation

The principle of gross reporting stated above does not prevent consolidation in certain circumstances. Part 1 of Annex II to the Regulation requires MFIs to consolidate the business of all their offices (registered or head office and branches) located within the same national territory. Furthermore, if an MFI has subsidiaries (as opposed to branches) in the same country which are also MFIs, the parent MFI may consolidate the business of these subsidiaries in its statistical returns. However, it must keep separate the business of credit institutions and other MFIs among them for minimum reserves purposes. By contrast, no consolidation across national

²¹ See the ECB press release of 8 July 1998 “Setting-up of common market standards” on the [ECB's website](#).

²² When estimating the exchange rate adjustment (see Section 7.2.2), the ECB uses its last reference exchange rates of the month or quarter.

boundaries is permitted by the Regulation. An MFI must report positions with branches and subsidiaries abroad (whether in another participating Member State or outside the euro area) or with a parent abroad (if the reporting institution is itself a branch or subsidiary) as if it were business with an unaffiliated MFI in the country concerned. In addition, no consolidation across sectoral boundaries is permitted by the Regulation. As a result, in its statistical reporting an MFI may not consolidate its own business with the business of financial subsidiaries that are not MFIs.

2.5.6 Time of recording

The ESA 2010 states that financial transactions and their counterpart transactions (financial or non-financial) must be recorded at the same point in time (5.49). A distinction is made between two main cases depending on the nature of the counterpart transaction. When the counterpart of a financial transaction is a non-financial transaction (e.g. sale of a non-financial asset), both transactions are to be recorded at the time when the non-financial transaction takes place (5.50), i.e. when the ownership of the non-financial asset changes, which may not coincide with payment (1.101 and 1.102).²³ MFI balance sheet outstanding stocks, however, are mostly affected by transactions within the financial account (where the counterpart of a financial transaction is another financial transaction). In this case, the ESA 2010 criterion usually relates to the time when the payment is made (5.51). In particular, three possibilities can be distinguished: (i) if both financial transactions are transactions in cash or other means of payment²⁴ (for example, where currency or deposits are exchanged), they should be recorded at the time the first payment is made; (ii) if only one of the two financial transactions is a transaction in cash or other means of payment (e.g. a sale of securities for deposits), they should be recorded at the time payment is made; (iii) if neither of the two financial transactions is a transaction in cash or other means of payment (e.g. an exchange of securities), they should be recorded at the time the first financial transaction takes place (i.e. the change in ownership). In accordance with these criteria, an MFI loan should be recorded when the payment is made to the borrower, which also coincides with the creation of the claim against the borrower (case (ii)). Similarly, when an MFI buys a security in exchange for cash, the transaction should be recorded when the payment occurs, not when the security is traded or delivered (case (ii)). In contrast, when an MFI exchanges a loan against a security, the financial transactions are to be recorded when the first change in ownership (whether of the loan or the security) takes place (case (iii)).

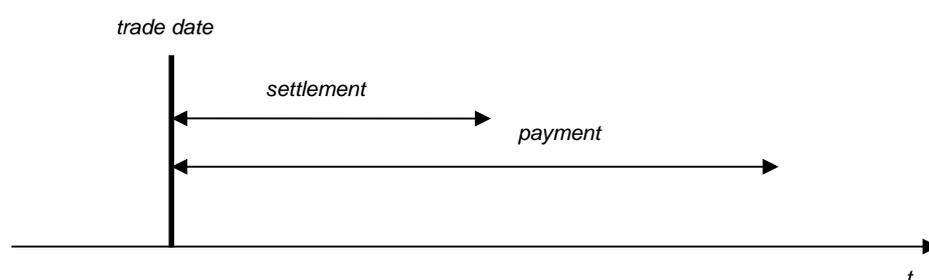
The time of recording in accounting rules may differ from the treatment envisaged by the ESA 2010 for transactions within the financial account. In particular, under international financial reporting standards (IFRS) transactions in financial assets are to be recorded on either the trade date (trade accounting) or the settlement date

²³ For instance, when a service is provided giving rise to a claim on the customer (e.g. trade credit), this financial transaction is to be recorded when the entries are made in the non-financial account.

²⁴ Means of payment in the ESA 2010 comprise monetary gold, special drawing rights, currency and transferable deposits (Annex 7.1, summary of *Financial assets and liabilities (AF)*, p. 186).

(settlement accounting). The trade date is defined as the date when two entities commit to the purchase or sale of an asset (IFRS 9.B3.1.5), while the settlement date is the date on which an asset is delivered to or by an entity (IFRS 9.B3.1.6), which is the moment when the ability to exercise the rights associated with the transacted financial asset are received/transferred. The payment may take place on a different date, however, and does not determine the time of recording under IFRS. The trade date and the settlement date often coincide, but this may not necessarily be the case. For instance, regulated stock exchanges have often developed in such a way that for transactions in equity instruments, delivery is made on the trade date while the corresponding payment follows at a later stage. In such cases the counterpart of the transaction in the equity instrument is a receivable/payable which will be reversed when the payment is made. For transactions in bonds, however, regulated exchanges are sometimes organised in such a way that delivery is recorded when payment occurs, which may not coincide with the trade date.²⁵ In such cases the counterpart of the transaction in the bond instrument is the payment and no receivable/payable amounts arise.

Figure 2
Recording of transactions under IFRS and payment date



For the purposes of MFI balance sheet statistics, MFIs should record financial transactions on the date when payment occurs, which often coincides with the date when delivery is made²⁶ (i.e. the settlement date in IFRS terminology).²⁷ In cases where, in accordance with the accounting provisions, MFIs do not record transactions when delivery is made (e.g. they record transactions on the trade date), they may do the same for MFI balance sheet statistics reporting provided this does not create significant distortions in the reported figures. If significant distortions arise

²⁵ Securities exchanges do not all operate in the same way in terms of the timing of trading versus delivery and payment, so there may be differences between countries.

²⁶ For transactions in financial assets which do not take place on regulated exchanges (e.g. deposits, loans and non-negotiable securities), delivery usually takes place when the payment occurs.

²⁷ The Balance of Payments and International Investment Position Manual (BPM6) recommends that transactions should be recorded "when economic ownership changes", but goes on to state that "when the delay between the transaction and settlement date is short, the time of settlement may be considered as an acceptable proxy", so the BPM6 (3.55) can be seen to provide some additional guidance to the ESA 2010 (5.51). The BPM6 may depart from the recommended ESA treatment in certain cases when there is a longer delay between the transaction and settlement date. As the notion of a "longer delay" is rather subjective, the recommended practice for MFI balance sheet statistics reporting is to maintain the IFRS settlement date recording approach, which should also correspond with the ESA 2010 guidance in most cases.

as a result of not using the settlement date, the NCB should develop suitable techniques to make the necessary adjustments to remove such distortions.

Recording transactions on the settlement date may give rise to amounts receivable or payable. MFIs should record such amounts on a net basis under “remaining assets” or “remaining liabilities” according to their sign (this may also apply if transactions are recorded on the trade date).

The suggested practice for MFI balance sheet statistics is thus in line with IFRS, as the settlement date is one of the options available under IFRS.

National variations in the determination of the reference date for balance sheet data (see Section 2.5.3) may lead to different practices in relation to the time of recording. This can lead to quality issues, particularly for short-term comparisons, and may contribute to discrepancies between aggregated inter-MFI assets and liabilities. These should even out over longer time periods, however.

2.5.7 Group reporting

To alleviate the reporting burden, Part 2, Section 1 of Annex III to Regulation ECB/2013/33 permits group reporting by credit institutions. There are two variants, both of which are conditional on the holding of minimum reserves as a group via an intermediary in the sense of Regulation ECB/2003/9.

In the first variant, Regulation ECB/2013/33 allows the intermediary to apply to the ECB for permission to report the statistical data regarding the reserve base for the group on a consolidated basis. Other statistical data required by the Regulation must, however, be reported on an aggregated basis. If permission is granted, the intermediary is exempted from the obligations defined in Article 10(6) of Regulation ECB/2003/9 to report data relating to minimum reserves individually for each group member. The group members will then no longer benefit individually from the lump-sum allowance as defined in Article 5(2) of Regulation ECB/2003/9, since the group as a whole is entitled to it only once.

The second variant of group reporting does not imply exemptions from the requirements defined in Regulation ECB/2003/9. An NCB may allow an intermediary to report MFI balance sheet data, other than items related to the reserve base, in aggregate for the group. Nevertheless, the data relating to minimum reserves still need to be reported such that data relating to each member of the group can be identified.

2.6 List of MFIs for statistical purposes

Under Regulation (EC) No 2533/98²⁸, and in line with the ESA 2010 (2.67), the population of MFIs is defined by the ECB, as this population plays an essential role in the transmission of monetary policy decisions. Accordingly, the ECB establishes a list of MFIs for statistical purposes under Article 4 of Regulation ECB/2013/33. This list is also used as a basis for producing consistent and comprehensive monthly lists for the Eurosystem's minimum reserve requirements and of the counterparties eligible for Eurosystem operations.

The list of MFIs for statistical purposes comprises all institutions resident in all EU Member States, and therefore comprises all EU MFIs whether or not the Member State in which they are located is a euro area country. However, the reporting population for the purposes of Regulation ECB/2013/33 is confined to MFIs resident in the euro area.

2.6.1 Maintaining the list of MFIs

MFIs in the list are identified by a RIAD²⁹ code, which is unique to each institution. Each NCB in the EU is responsible for allocating a unique RIAD code to each MFI resident in its territory. The RIAD code comprises the two-digit ISO code of the MFI's country of residence followed by a series of alphanumeric characters (no maximum length has been specified, but there must be at least three digits after the two-digit ISO code). The RIAD code convention has been agreed by the ECB and the NCBs. The assignment and management of the RIAD code is legally binding and is laid down in Article 5 of Guideline ECB/2018/16.

Reference data are reported by NCBs in RIAD for each MFI included in the list in accordance with Guideline ECB/2018/16. NCBs shall immediately update this information when there are changes in attributes of existing MFIs (e.g. name, address, etc.) in accordance with Article 6 of Guideline ECB/2018/16.

2.6.2 Changes in the population of MFIs

A change in the population of MFIs occurs whenever an institution joins or leaves the MFI sector (i.e. as the result of a merger or takeover, the division of an existing MFI, the establishment of a brand-new MFI, a change in status from non-MFI to MFI or from MFI to non-MFI, or the liquidation of an MFI).

When a new MFI is created, NCBs immediately register the entity together with all mandatory details. Similarly, when an institution leaves the MFI sector it is deleted immediately from the list of MFIs.

²⁸ Council Regulation (EC) No 2533/98 of 23 November 1998 concerning the collection of statistical information by the European Central Bank (OJ L 318, 27.11.1998, p 8).

²⁹ RIAD is the Register of Institutions and Affiliates Data. The RIAD ID code is a unique identifier for each MFI.

Institutions that are credit institutions under Union law are classified as MFIs. Former credit institutions that no longer meet the definition of a credit institution under Union law and do not otherwise meet the definition of an MFI are declassified as MFIs. This means that credit institutions (including, where applicable, their branches resident abroad) joining/leaving the MFI sector are added to/removed from the list of MFIs once their licence has been granted/withdrawn.

In the case of CIUs, NCBs classify CIUs as MFIs if they fall within a national legal definition of an MMF that is fully in line with the definition in Regulation ECB/2013/33. NCBs remove CIUs from the list of MFIs immediately if they no longer satisfy the national legal definition of an MMF. If a CIU ceases to be classified as an MMF but continues to conduct business, it is included in the list of investment funds (IFs) for reporting purposes as an IF under Regulation ECB/2013/38³⁰. Similarly, a CIU that is reclassified as an MMF is removed from the list of IFs.

After a credit institution or an MMF has been included in the updated list of MFIs, it must start reporting statistical information in accordance with the Regulation without undue delay.³¹

The definition of an MFI may be met by financial institutions that are neither credit institutions under Union law nor MMFs according to the agreed EU-wide definition for supervisory purposes, as adopted by the ECB in Regulation ECB/2013/33. To identify such institutions, NCBs check regularly whether financial institutions that are not on the list of MFIs nevertheless meet the statistical criteria for inclusion (these are usually institutions classified under the ESA 2010 sector “other financial intermediaries”, S.125). They also check regularly that financial institutions on the list of MFIs continue to meet the definition of an MFI. As the procedures can be complex, the ECB recognises that such a comprehensive check might occur only once a year. Financial institutions should be added to the list of MFIs as soon as they have been identified as meeting the definition of an MFI, and removed as soon as they are identified as no longer meeting the definition. These changes to the list should be made in accordance with the procedures for updating the list outlined above. When an institution is included in the list, it must start reporting in accordance with the Regulation without undue delay.

2.6.3 Public release of the list of MFIs

Updates of the list of MFIs, together with details of the individual institutions, are released daily on the ECB's website.³² The list can be downloaded or user-defined searches can be performed. Explanatory notes available on the website provide further information and definitions.

³⁰ Regulation (EU) No 1073/2013 of the ECB of 18 October 2013 concerning statistics on the assets and liabilities of investment funds (recast) (ECB/2013/38) (OJ L 297, 7.11.2013, p. 73).

³¹ The relevant NCB may determine the actual scope and details of statistical reporting requirements imposed on joining/leaving MFIs on a case-by-case basis in agreement with the ECB.

³² See the Statistics section of the [ECB's website](#).

2.7 Actual reporting population and derogations

Under Regulation ECB/2013/33, the reporting population for MFI balance sheet statistics consists of the MFIs resident in the territory of the participating Member States. The Regulation distinguishes between MFIs which are subject to full reporting requirements and “small” MFIs to which derogations are applicable (the tail). Annex IV to Regulation ECB/2013/33 specifies the minimum standards that reporting agents must fulfil to meet the ECB’s reporting requirements for MFI balance sheet statistics.

As noted above, the MFI population includes MMFs, which issue shares/units rather than take deposits. For the purposes of monetary statistics, it is important to identify and exclude holdings of these by non-residents of the euro area, because the ECB’s measures of money stock are confined to holdings of monetary instruments by residents of the euro area.³³ Under Article 3 of Regulation ECB/2013/33, where MMFs themselves cannot identify holders of their shares/units, the ECB and NCBs may request such information from OFIs (S.125), which may therefore be included in the actual reporting population in connection with, for example, custodial activities involving MMF shares/units.

2.7.1 Derogations granted to small MFIs (MFIs in the tail)

Under Article 9(1) of Regulation ECB/2013/33, NCBs may grant derogations as follows:

- NCBs may grant derogations to small MFIs, provided that their combined contribution to the national MFI balance sheet in terms of stocks does not exceed 5%;
- with regard to credit institutions, the derogations must have the effect of reducing the statistical reporting requirements without prejudice to the requirements for the calculation of minimum reserves (see Section 8.1);
- with regard to small MFIs included in the tail, NCBs must continue, as a minimum, to collect data relating to the total balance sheet at least annually so that the size of the reporting tail can be monitored (and in order to gross up properly, see Section 6.1);³⁴
- NCBs may grant derogations to credit institutions with respect to a limited set of reporting requirements, as indicated below, provided that their combined contribution in terms of stocks exceeds neither 10% of the national MFI balance sheet nor 1% of the euro area MFI balance sheet.

³³ With the exception of euro banknotes and coins, where the total amount in circulation is included in money stock.

³⁴ Article 9(1)(c) of Regulation ECB/2013/33 explicitly mentions this provision only in the paragraph addressed to small MFIs that are not credit institutions. However, for all tail institutions, annual information on total assets is the minimum needed to check that the tail does not exceed 5% of total MFI assets and to ensure proper grossing up.

As indicated in Part 6 of Annex I to ECB/2013/33, credit institutions qualifying for this derogation may be exempted from the following requirements:

- monthly reporting with respect to the breakdown by currency, the separate identification of positions with central counterparties, syndicated loans, and debt securities of up to two years' maturity and with a nominal capital guarantee below 100%;
- quarterly reporting with respect to the sector breakdown of business with counterparties outside the participating Member States as included in Part 3, Section 3 of Annex I to ECB/2013/33, the breakdown by country as included in Part 3, Section 5 of Annex I to ECB/2013/33, and the breakdown by currency as included in Part 3, Section 7 of Annex I to ECB/2013/33.

In addition, these credit institutions may fulfil the reporting requirements related to balance sheet stocks data, revaluation adjustments data and loan securitisations and other loan transfers, all of which are normally monthly requirements, by reporting data on a quarterly basis.

NCBs can grant or withdraw derogations with effect from the start of each year, after checking that the conditions for inclusion in the 5% and 10% tails are met.

Small MFIs may choose not to make use of any derogation and instead fulfil the full reporting requirements.

2.7.2 Derogations granted to MMFs

Under Article 9(2) of Regulation ECB/2013/33, NCBs may grant derogations to MMFs from the reporting requirements set out in the Regulation, provided that they instead report balance sheet data in accordance with Article 5 of Regulation ECB/2013/38 and that the data are provided in accordance with the timeliness requirements set out in Regulation ECB/2013/33.

2.8 Minimum standards to be applied by the reporting population

Under Annex IV to Regulation ECB/2013/33, reporting agents must fulfil the following minimum standards when meeting their reporting obligations for MFI balance sheet statistics:

2.8.1 Minimum standards for transmission:

- reporting must be timely and within the deadlines set by the relevant NCB;
- statistical reports must take their form and format from the technical reporting requirements set by the relevant NCB;

- the contact person(s) within the reporting agent must be identified;
- the technical specifications for data transmission to the relevant NCB must be followed.

2.8.2 Minimum standards for accuracy:

- the statistical information must satisfy the linear constraints (e.g. assets and liabilities must balance, subtotals must add up to totals) and must be consistent across all frequencies;
- reporting agents must be able to provide information on the developments implied by the transmitted data;
- the statistical information must be complete: existing gaps must be acknowledged, explained to the relevant NCB and, where applicable, bridged as soon as possible;
- the statistical information must not contain continuous and structural gaps;
- reporting agents must follow the dimensions and decimals set by the relevant NCB for the technical transmission of the data;
- reporting agents must follow the rounding policy set by the relevant NCB for the technical transmission of the data.

2.8.3 Minimum standards for compliance with concepts:

- the statistical information must comply with the definitions and classifications contained in Regulation ECB/2013/33;
- in the event of deviations from these definitions and classifications, where applicable, reporting agents must monitor on a regular basis and quantify the difference between the measure used and the measure contained in Regulation ECB/2013/33;
- reporting agents must be able to explain breaks in the transmitted data compared with the previous periods' figures.

2.8.4 Minimum standards for revisions:

The revisions policy and procedures set by the ECB and the relevant NCB must be followed. Revisions deviating from regular revisions must be accompanied by explanatory notes (see also Section 6.3).

3 Statistical reporting requirements

MFI balance sheet statistics collected under Regulation ECB/2013/33³⁵ are the main source for the euro area monetary aggregates and counterparts and are also used to derive the Eurosystem's minimum reserve requirements for credit institutions. The MFI data are complemented by statistics on electronic money issuance, and on the monetary liabilities of POGIs collected under Regulation ECB/2013/39³⁶ and of central government. These respective statistical reporting requirements are detailed in the following sections.

3.1 Statistical reporting requirements for MFI balance sheets

Regulation ECB/2013/33 requires MFIs that are subject to full reporting requirements to report to the NCB of the Member State in which they are resident monthly outstanding amounts relating to the end-of-month balance sheet and monthly revaluation adjustments.³⁷ Guideline ECB/2014/15 indicates what information on monthly and quarterly reclassifications and revaluations may need to be provided by NCBs (and the ECB) in respect of their own balance sheets beyond the minimum requirements of Regulation ECB/2013/33.

3.1.1 Instruments

The table below summarises the assets and liabilities instruments, including the main "of which" positions and original maturity breakdowns, reported by MFIs on a monthly basis in accordance with Table 1 in Annex I to Regulation ECB/2013/33. Additional quarterly requirements are set out in Table 2 in Annex I to the Regulation, which includes positions on derivatives and accrued interest on loans and deposits within the "remaining assets" and "remaining liabilities" categories. NCBs may collect quarterly requirements from MFIs on a monthly basis. For detailed information on instrument categories and associated valuation principles, see Chapter 4.

Guideline ECB/2014/15 includes the reporting of some items which are specific to central bank balance sheets, such as gold and gold receivables, and receivables from the International Monetary Fund (IMF). As indicated in Article 3 of Guideline ECB/2014/15, NCBs and the ECB derive the required statistical information concerning their own balance sheets from their own accounting systems in accordance with the indications provided in the bridging tables published on the

³⁵ Regulation (EU) No 1071/2013 of the European Central Bank of 24 September 2013 concerning the balance sheet of the monetary financial institutions sector (recast) (ECB/2013/33) (OJ L 297, 7.11.2013, p. 1).

³⁶ Regulation (EU) No 1074/2013 of the ECB of 18 October 2013 on statistical reporting requirements for post office giro institutions that receive deposits from non-monetary financial institution euro area residents (recast) (ECB/2013/39) (OJ L 297, 7.11.2013, p. 94).

³⁷ The Regulation requirements for revaluation adjustments are detailed in Sections 5.2 to 5.4.

ECB's website.³⁸ The bridging tables provide a detailed link between the items in the accounting balance sheet and those in the statistical balance sheet, for monthly and quarterly requirements.

The Regulation requires that some instruments are broken down by maturity (as summarised in the following table), by currency, and by residency and sector of counterparties. These are explained in the following sections.

Table 1
Main breakdowns of MFI balance sheets required on a monthly basis

Assets	Liabilities
Cash	Currency in circulation
Loans	Deposits
up to 1 year	Overnight
over 1 and up to 5 years	o/w transferable deposits
over 5 years	With agreed maturity
o/w revolving loans and overdrafts	up to 1 year
o/w convenience credit card credit	over 1 and up to 2 years
o/w extended credit card credit	over 2 years
o/w intragroup positions	Redeemable at notice
o/w syndicated loans	up to 3 months
o/w reverse repos	over 3 months
Debt securities held	Repos
up to 1 year	o/w intragroup positions
over 1 and up to 2 years	o/w up to 2 years
over 2 years	o/w syndicated loans
Equity	MMFs shares/units
Investment fund shares/units	Debt securities issued
MMF shares/units	up to 1 year
Non-MMF investment fund shares/units	over 1 and up to 2 years
Non-financial assets (including fixed assets)	over 2 years
Remaining assets	o/w up to 2 years with nominal capital guarantee below 100%
	Capital and reserves
	Remaining liabilities

3.1.1.1 Reporting requirements relating to securitisation and other loan transfers

Part 5 of Annex I to Regulation ECB/2013/33 requires MFIs to report a comprehensive set of information regarding loans securitised or otherwise transferred on a monthly and quarterly basis.

MFIs report data on the (net) impact of loan transfers (with and without impact on the reported loan stocks), outstanding amounts of non-derecognised securitised loans and outstanding amounts of derecognised loans serviced in a securitisation (which may be extended to all serviced loans). Further information on these requirements is

³⁸ See "Bridging tables between the accounting balance sheet items of the NCBs and the ECB and the items to be reported for statistical purposes", published on the [ECB's website](#).

provided below. Typically, these requirements are reported with a sector breakdown of the borrowers where these are domestic residents or residents of other euro area countries (no sector breakdown is requested for borrowers resident outside the euro area), a breakdown by purpose of lending to households and non-profit institutions serving households (i.e. consumption, house purchase and “other lending”, which includes loans to sole proprietors/unincorporated partnerships), and a breakdown by the original maturity of loans to non-financial corporations (with breaks at one and five years).

Additional related data on the securitisation activities of MFIs are collected under the reporting requirements for financial vehicle corporations (FVCs) set out in Regulation ECB/2013/40³⁹. Guideline ECB/2014/15 provides further complementary information and establishes the link between Regulations ECB/2013/33 and ECB/2013/40. Only the requirements set out in Regulation ECB/2013/33 and Guideline ECB/2014/15 are considered below.

Data on net flows of loans securitised or otherwise transferred are required as follows:

- The net amount of loans securitised or otherwise transferred during the month with an impact on the reported loan stocks (i.e. derecognised from the balance sheet) is reported.

MFIs report the net impact of transfers on the reported loan stocks on their balance sheets, i.e. the net of loans securitised or otherwise disposed of during the relevant period minus loans acquired during the period. All such loan transfers should be included under the requirements of Regulation ECB/2013/33, with the exception of:

- (i) loans transferred to or acquired from another domestic MFI;
- (ii) loans whose transfer occurs as a result of a division of the reporting agent, or of a merger or takeover involving the reporting agent and another domestic MFI.

The reason for provision (i) is that the flows of loans transferred between domestic MFIs cancel out in aggregate.⁴⁰ MFIs report transfers of loans to or from non-domestic MFIs so that the national adjusted series can take such operations into account.

Provision (ii) applies in cases where the merger, takeover or division gives rise to the appearance or disappearance of an institutional unit. As such events are recorded from other sources in MFI balance sheet statistics (reclassification adjustment, see Section 5.6), including the loan transfers in this part of the

³⁹ Regulation (EU) No 1075/2013 of the ECB of 18 October 2013 concerning statistics on the assets and liabilities of financial vehicle corporations engaged in securitisation transactions (recast) (ECB/2013/40) (OJ L 297, 7.11.2013, p. 107).

⁴⁰ For the purposes of transmitting individual MFI balance sheet item statistics to the ECB, however, in line with Part 15a of Annex II to Guideline ECB/2014/15, NCBs should transmit data on transfers between domestic MFIs, as these are of course relevant at the level of the individual credit institutions.

reporting requirements would lead to a double correction for the purposes of deriving statistics on loans adjusted for loan transfers. In addition, cases where the loan transfer is treated as a transaction rather than a reclassification, for instance because it takes place when the two entities which are merging still represent two distinct institutional units (see Section 5.6.2), are not covered by the provision. Therefore, transfers between entities which are still separate institutional units are to be included in net flows of loans securitised or otherwise transferred (unless they are both domestic MFIs, in which case provision (i) applies).

MFIs must report whether or not the counterparty to the operation is an FVC (i.e. a securitisation), and if so whether it is resident in the euro area. This information provides a link to FVC balance sheet statistics.

- The net amount of loans securitised or otherwise transferred during the month without an impact on reported loan stocks (i.e. which are not derecognised owing to the application of IFRS 9 or other national accounting rules preventing MFIs from derecognising securitised loans) is reported.

This information is useful to achieve a complete picture of traditional securitisation and is particularly valuable while accounting practices for derecognition of securitised loans differ between countries owing to the different accounting practices applied. MFIs provide a sector breakdown of the borrowers.

Data on outstanding loans derecognised from MFI balance sheets are required as follows:

- Outstanding amounts of derecognised loans which have been securitised and derecognised by MFIs are collected under Part 5 of Annex I to Regulation ECB/2013/33. This provides a more complete and accurate picture of lending to the real economy originated by euro area banks.
- With regard to the above outstanding amounts, MFIs also report transactions excluding loan transfers, which should broadly correspond to the principal repayments of the derecognised loans. Where the stock of derecognised loans is large, the monthly repayments are significant and so are captured in the adjusted loan flows and growth rates.
- Under Guideline ECB/2014/15, NCBs may provide to the ECB additional data (outstanding amounts and loan repayments) for loans derecognised from MFI balance sheets. Some NCBs also provide data that are available on loans not serviced by MFIs (e.g. where the servicing of loans is performed by another part of the banking group). Overall, this permits almost complete coverage of

securitised loans that are derecognised by euro area MFIs. Coverage may also include other non-securitised derecognised loans.⁴¹

Data on outstanding loans not derecognised from MFI balance sheets are required as follows:

- The outstanding amount of securitised loans not derecognised is reported monthly.

These requirements are important for a complete picture of securitisation, regardless of the derecognition practice, and allow a comprehensive analysis of outstanding credit. Securitised loans are reported on the statistical balance sheet of the FVC, regardless of the accounting treatment applied. Collecting data on the outstanding amount of loans which have not been derecognised from the MFI balance sheet reveals the amounts that appear on both MFI and FVC balance sheets, which is essential to prevent double-counting of loans held in the financial sector. Recording the amount of non-derecognised loans is also important in analysing the counterpart FVC deposit created (see below).

Other data requirements relating to securitisations:

- The outstanding amount of loans transferred in a securitisation which are serviced by the reporting MFI, irrespective of whether or not the loans or their respective servicing rights have been derecognised from the balance sheet, is reported quarterly.
- MFIs also report their deposit liabilities to FVCs in the euro area on a monthly basis. They are broken down by domestic FVCs and FVCs resident in other euro area countries, with a maturity breakdown at two years in order to identify the monetary component.

Deposits of FVCs mainly consist of two components: (i) a counter-entry to loans securitised (or otherwise transferred) but not derecognised (recorded in the “over two years” maturity category), (ii) collateral placed by FVCs with the MFI in the form of deposits in the case of synthetic securitisation. There may also be some deposits from FVCs which arise in the normal course of their business.

- Finally, MFIs report their holdings of securities issued by FVCs in the euro area on a monthly basis. This is again broken down by domestic FVCs and FVCs resident in other euro area countries, providing further links with data submitted under Regulation ECB/2013/40.

This requirement includes securities held by MFIs as part of a retained securitisation. It should be emphasised that, as is the case for other balance sheet items, MFIs must not net asset positions (security claims on FVCs) against deposit liabilities to FVCs. The treatment of securities held as part of a

⁴¹ For example, Regulation ECB/2013/33 permits NCBs to extend reporting requirements on outstanding loans derecognised from MFI balance sheets to all loans serviced by MFIs (i.e. serviced loans which were transferred to counterparties other than FVCs).

retained securitisation is not analogous to the treatment of holdings of own securities (detailed in Section 4.5.1.7).

3.1.2 Maturity

Most of the requirements relating to maturity refer to the original maturity of an instrument, which is the period from the issue date until the final contractually scheduled payment, or before which it cannot be redeemed (e.g. debt securities), or before which it can be redeemed only subject to a penalty (such as certain types of deposit). For example, a bond issued for ten years which has only one year left to run is recorded in the maturity category “over two years”. The category “up to two years” includes bonds issued for exactly two years. Some instruments have a period of notice corresponding to the time between the date on which the holder gives notice of an intention to redeem the instrument and the date on which the holder may do so without incurring a penalty. Financial instruments are classified according to the period of notice only when there is no agreed maturity. Original maturity (rather than residual) cut-offs are requested as they may provide a substitute for an instrument breakdown where financial instruments are not fully comparable across markets. Original maturities are also assumed to be more indicative of the underlying motivation of the debtor or investor, which is the main focus of MFI balance sheet statistics.

The requested maturity bands (or periods of notice) in monthly statistics are one and two years' maturity at issue for deposits with agreed maturity, and three months' notice and (on a voluntary reporting basis) two years' notice for deposits redeemable at notice. Non-transferable sight deposits (sight savings deposits) are included in the “up to three months” band. Repurchase agreements (usually very short-term instruments, commonly agreed for less than three months) are not broken down by maturity. The maturity breakdown for debt securities issued by MFIs (including money market paper) is at one and two years. There is no maturity breakdown for shares/units issued by MMFs, as the concept is not relevant for them. A maturity breakdown by original maturity is required at one and five years for loans, and at one and two years for securities other than shares (debt securities).

Quarterly maturity requirements permit monitoring of the maturity structure of MFIs' overall credit financing (loans and securities) vis-à-vis the money-holding sector. Loans to general government other than central government are broken down at one and five years' original maturity, while holdings of securities issued by these agencies are split at one year's original maturity, both items being cross-related to a sub-sector breakdown of general government other than central government. Holdings by MFIs of debt securities issued by insurance corporations, pension funds, other financial corporations and non-financial corporations are broken down by original maturity at one year.

A breakdown of **remaining (or residual) maturity**, i.e. the period between the reference date and the final contractually scheduled payment, is required under Regulation ECB/2013/33 for euro-denominated loans to non-financial corporations

and to households. Remaining maturities are collected in conjunction with information on original maturity and the period over which the interest rate may be reset (i.e. in the following 12 or 24 months), as provided for in the current loan contract. These breakdowns are collected for the purposes of MFI interest rate statistics (MIR). Bad loans that are still outstanding beyond the final contractually scheduled payment provided for in the current loan contract (i.e. they have not been repaid or written off) should be excluded from the remaining maturity breakdowns.

3.1.3 Currency

For all relevant monthly balance sheet items, amounts denominated in euro and in non-euro currencies must be reported separately.

Quarterly information identifying the main foreign currencies individually is used on a monthly basis to remove the effect of exchange rate changes when deriving transactions data from changes in the outstanding amounts (see Section 5.8 and Section 7.2.2). Key balance sheet items are broken down quarterly into major international currencies (US dollar (USD), British pound (GBP), Japanese yen (JPY) and Swiss franc (CHF)), a total for currencies of other non-euro area EU Member States, and remaining currencies combined. In addition, loans denominated in EU currencies other than euro are broken down by individual currencies.

3.1.4 Residency

Positions are required vis-à-vis domestic residents, residents of other euro area countries, and non-residents of the euro area. The distinction between positions vis-à-vis domestic residents and residents of other euro area countries is critical to the compilation of euro area aggregates and is necessary because MFI balance sheet data are used for certain national statistical purposes.

For deposit liabilities, loans and holdings of securities (comprising debt securities held, MMF shares/units and equity), MFIs provide a quarterly breakdown by country of counterparty (the country in which the issuer is resident in the case of holdings of securities).

3.1.5 Sector of counterparty

Counterparties in the euro area are identified from the list of MFIs (if they are MFIs) or in line with Part 3 of Annex II to Regulation ECB/2013/33. The sector of counterparty breakdown typically follows the ESA 2010, although the Regulation requires somewhat more detail for certain items, e.g. central counterparties and FVCs within the ESA 2010 category “other financial intermediaries”. In other respects the Regulation requires less detail, e.g. financial auxiliaries (S.126 in the ESA 2010) and captive financial institutions and money lenders (S.127) are grouped together with other financial intermediaries (S.125).

Monetary instruments held by MFIs themselves, by central government and by non-residents of the euro area are excluded from the ECB's monetary aggregates and must be identified in order to isolate the amounts held by the money-holding sectors.

Since there is considerable interest in individual money-holding sectors for the purposes of analysis, MFIs provide a monthly breakdown of deposit liabilities identifying those held by general government other than central government, by non-financial corporations (S.11), by OFIs (including financial auxiliaries and captive financial institutions and money lenders), by insurance corporations (S.128), by pension funds (S.129), and by households together with non-profit institutions serving households (S.14 and S.15). An additional distinction is made for central banks (S.121) and deposit-taking corporations except the central bank (S.122) and for rest of the world banks and non-banks for some monthly items. In the categories of deposits with agreed maturity over two years and deposits redeemable at notice over two years, and in repos, for the purposes of the minimum reserve system additional distinctions are made between liabilities to credit institutions subject to minimum reserve requirements and liabilities to all other MFI and non-MFI counterparties (including the rest of the world).

MFI lending is broken down monthly into lending to general government and lending to the other sectors listed above. In certain deposit and lending categories, business with OFIs will show positions with central counterparties (specialised intermediaries operating in the money market) and with FVCs identified separately (see also Section 4.4 on securitisation).

Quarterly requirements include the breakdown of deposit liabilities to general government other than central government by sub-sector (i.e. state government, local government and social security funds). MFIs' equity holdings are broken down quarterly into the following issuer sectors: non-financial corporations, OFIs (including financial auxiliaries), insurance corporations and pension funds. MFIs also provide a quarterly report of their loans to central government and their holdings of debt securities issued by central government, with no further breakdown (in the monthly statistics, MFI credit to central government is not shown separately within credit to general government).

A limited sector breakdown is required for positions with counterparties outside the euro area (i.e. non-euro area EU Member States and the rest of the world), distinguishing only between positions with banks (or MFIs in EU Member States outside the euro area) and non-banks (or non-MFIs in EU Member States outside the euro area), the latter being split between general government and others. The sector classification according to the System of National Accounts (SNA 2008) applies where the ESA 2010 is not in force. These data are required principally for balance of payments purposes.

3.1.6 Timeliness of reporting and dissemination

Monthly data positions are reported to the ECB by close of business on the 15th working day following the end of the month to which the data relate, while quarterly

data are reported by close of business on the 28th working day following the end of the quarter to which the data relate.⁴² Annual data are reported to the ECB by the last working day of the month following the end of the reference period. NCBs arrange to receive data from reporting institutions in time to meet these deadlines.

Euro area aggregates, including the monthly monetary aggregates drawn from the MFI balance sheet, are first published in a press release on the 19th working day following the month to which they relate.⁴³ In addition to monthly statistics, the ECB publishes additional euro area aggregates based on the quarterly requirements of Regulation ECB/2013/33. These data are released with a one-month lag compared with monthly data, e.g. data for the first quarter are released together with monthly data for April. The release calendar for MFI balance sheet statistics in the euro area is published on the ECB website for the following year.⁴⁴

In accordance with Article 30 of Guideline ECB/2014/15, NCBs are not allowed to publish national contributions to the euro area monetary aggregates or counterparts before the ECB publishes the euro area data. Additionally, NCBs should publish data that is the same as data that contributed to the last published euro area aggregates. Individual components of the monetary aggregates and of their counterparts are also covered by this embargo.

3.2 Statistical reporting requirements on electronic money issuance

Article 5 of Guideline ECB/2014/15 requires NCBs to report an additional set of information relating to electronic money issuance to the ECB, with the aim of drawing a picture of the overall size of this market segment and its development. The scope of the Guideline goes beyond the MFI population, as not all ELMIs are principally engaged in financial intermediation, which is necessary to fulfil the MFI definition.⁴⁵

MFIs that have not been granted a derogation under Article 9(1) of Regulation ECB/2013/33 report information on the issuance of hardware-based and software-based e-money, where applicable, with balances in euro and foreign currencies identified separately, in accordance with Table 1 in Part 2 of Annex II to Guideline ECB/2014/15. Data are reported to the ECB monthly together with the monthly MFI balance sheet item statistics. In the absence of actual data, NCBs should use estimates or provisional data where possible.

⁴² The number of working days is defined taking into account the public holidays in individual euro area countries and monetary policy meetings of the Governing Council of the ECB. Broadly speaking, a calendar day is considered a non-working day for the definition of the reporting calendar to the ECB if it is a holiday in at least three euro area countries. By September of each year, the ECB communicates to NCBs a reporting schedule for the following year.

⁴³ See the [press releases](#).

⁴⁴ See the release calendar for monetary developments in the euro area on the [ECB's website](#).

⁴⁵ While ELMIs are no longer automatically credit institutions, credit institutions may issue e-money and thus can be ELMIs. See Chapter 2 above for more information.

ELMIs that are not credit institutions or MFIs, and small MFIs that have been granted a derogation under Article 9(1) of Regulation ECB/2013/33, report their total assets/liabilities and, as a sub-item, the issuance of e-money in accordance with Table 2 in Part 2 of Annex II to Guideline ECB/2014/15. The panel below reviews the coverage of electronic money issuance under the requirements of Tables 1 and 2 respectively. Data should be reported annually to the ECB by the last working day of the month following the end of the reference period. NCBs may arrange to collect data from reporting institutions or other sources, including supervisory authorities and other suitable sources.

Table 2
Coverage of electronic money issuance under Guideline ECB/2014/15

			With a derogation under Article 9(1) of Regulation ECB/2013/33	
			No	Yes
ELMIs	MFIs	Credit institutions	Table 1	Table 2
		MFIs other than credit institutions	Table 1 and Table 2	Table 2
	Non-MFIs		Table 2	

3.3 Statistical reporting requirements for POGIs and central government

To derive the monetary aggregates, NCBs collect statistical information on POGIs in accordance with Annex I to ECB/2013/39, and information on central government assets and liabilities and flow adjustments in accordance with Part 3 of Annex II to Guideline ECB/2014/15.

The statistical requirements for POGIs (classified as non-financial corporations, S.11)⁴⁶ and central government cover their monetary liabilities vis-à-vis euro area resident non-MFIs, i.e. close substitutes for monetary financial institutions' deposit liabilities, and their holdings of cash and securities issued by euro area MFIs. Certain short-term deposit liabilities of central government (national savings accounts and treasury accounts) and of POGIs held by the money-holding sector have similar characteristics to short-term bank deposits.

The reporting sector is not applicable for countries where no POGIs exist, as defined in Regulation ECB/2013/39, and where central government positions are insignificant. In addition, POGIs have MFI status in most euro area countries and as such their deposit liabilities are already included in NCBs' returns as part of the reporting requirements set out in Section 3.1 above.

⁴⁶ See Article 1(2) of Regulation ECB/2013/39.

4 Statistical treatment of selected instrument categories

Regulation ECB/2013/33⁴⁷ lists the instrument categories to which reporting agents (guided where necessary by NCBs) allocate the financial instruments found at national level, rather than detailing individual instruments. This chapter draws on the detailed description of the instrument categories in Part 2 of Annex II to the Regulation.

4.1 Valuation principles in ESA 2010 versus ECB statistical regulations and guidelines

As noted in Section 2.5.1 above, the valuation principles for outstanding amounts reported under Regulation ECB/2013/33 are to use nominal value for currency, deposits and loans (including finance leases).⁴⁸ Loans are to be reported at less than nominal value only if they have been written off or written down as wholly or partially irrecoverable. While the market valuation of securities is preferred, Regulation ECB/2013/33 accepts various reporting practices if national accounting procedures require them.

In cases where the accounting rules are not specified, the national transposition of Council Directive 86/635/EEC and any other applicable international standards should be applied as set out in Article 8 of the Regulation. The international standards may be accounting, supervisory or statistical standards. As noted in Section 2.5.4, instruments denominated in foreign currency are to be reported as euro amounts converted at the market exchange rates prevailing on the date to which the data relate.

The following table summarises the valuation principles required in MFI balance sheet statistics, as per the ECB Regulation and Guideline, with a detailed discussion contained in the sections below. The corresponding accounting requirements set out in the ESA 2010 are referred to for completeness and comparison.

⁴⁷ Regulation (EU) No 1071/2013 of the European Central Bank of 24 September 2013 concerning the balance sheet of the monetary financial institutions sector (recast) (ECB/2013/33) (OJ L 297, 7.11.2013, p. 1).

⁴⁸ To be valued as if they are loans repayable by instalment; see also Section 4.3.

Table 3

Valuation principles in MFI balance sheet statistics and the ESA 2010

<i>ESA items</i> ⁴⁹		<i>MFI balance sheet items</i> ⁵⁰	
Monetary gold (AF.11)	Price established in organised gold markets (7.62).	Gold and gold receivables (AC1)	Market price on the balance sheet date.
SDRs (AF.12)	Value determined daily by the IMF (7.63).	Receivables from the IMF (AC2); Counterpart of SDRs (LC1)	Value determined by the IMF and converted into euro at rate published by the IMF.
Currency (banknotes and coins) (AF.21)	Nominal or face value (7.64).	Cash (A10); Currency in circulation (L10)	Nominal or face value.
Deposits (AF.22, AF.29)	Nominal value (7.65), includes interest accrued (5.43).	Deposits (L20)	Nominal or principal amount outstanding, excluding interest accrued.
Debt securities (AF.3)	Market value (7.67), nominal value allowed for short-term debt securities issued at par and short-term discounted debt securities (7.68), includes interest accrued (5.242).	Debt securities held (A30); Debt securities issued (L30)	Market value or close equivalent (fair value), includes interest accrued.
Financial derivatives (AF.71)	Market value, or if unavailable, the value of the amount required to buy out or to offset the contract or the amount of premium payable (7.86).	Remaining assets, o/w financial derivatives (A74); Remaining liabilities, o/w financial derivatives (L74)	Market value on a gross basis, allocated to remaining assets or remaining liabilities depending on positive or negative market value.
Loans (AF.4)	Nominal value, for both creditors and debtors, irrespective of whether the loans are performing or non-performing (7.70), includes interest accrued (5.43), ⁵¹ provisions recorded as memorandum item (4.165 (f)).	Loans (A20)	Nominal or principal amount outstanding, excluding interest accrued, less any amounts written down. Preference for gross reporting, i.e. without regard to provisions, provisions recorded as memorandum item.
Listed shares (AF.511)	Representative mid-market price observed on the stock exchange or other organised financial market (7.72).	Equity, o/w listed shares (A51)	Market value, in line with the ESA 2010.
Unlisted shares (AF.512)	To be estimated with reference to either; the value of quoted shares where appropriate, or; the value of own funds, or; discounting forecast profits by applying an appropriate market price to earnings ratio to the smoothed recent earnings of the institutional unit (7.73).	Equity, o/w unlisted shares (A52)	Market value or close equivalent (fair value), in line with the ESA 2010.
Other equity (AF.519)	Nominal value or the value of own funds (7.77).	Equity, o/w other equity (A53)	Nominal value or original cost, in line with the ESA 2010.
Investment fund shares (AF.52)	If listed, valued at current market price, if unlisted, the market value may be estimated as per unlisted shares (AF.512), if redeemable by the fund, they are valued at redemption value (7.79).	Investment fund shares/units (A40)	Market value, in line with the ESA 2010.
Other accounts receivable/payable (AF.8)	Nominal value, for both creditors and debtors (7.90).	Included in Remaining assets (A70) and Remaining liabilities (L70)	Nominal value, but with no separate breakdowns.

⁴⁹ The ESA item codes refer to instrument classifications in the ESA 2010, and references to the relevant paragraphs on valuation are also provided in brackets.

⁵⁰ The MFI balance sheet item codes refer to the respective series for the financial instruments in the [Statistical Data Warehouse](#) (SDW). The valuation treatment reflects the preferences outlined in Article 8 of Regulation ECB/2013/33 and Article 3 of Guideline ECB/2014/15.

⁵¹ Although it is also possible that accrued interest is recorded in other accounts receivable/payable (5.242).

4.2 Cash and currency in circulation

These items on the MFI balance sheet correspond to currency (AF.21) in the ESA 2010, i.e. banknotes and coins that are issued or authorised by monetary authorities. Commemorative coins, which are legal tender across the euro area, are included. Unissued banknotes held by central banks, gold coins and collector coins (which are not intended for circulation and are only legal tender in the country of issue) are in principle excluded (see Section 4.2.3.3 below). Virtual currencies which are not financial assets are also excluded and should be reported as “non-financial assets”.

4.2.1 Cash

The asset category cash comprises banknotes and coins held by reporting MFIs. Also known as vault cash, it includes the banknotes and coins which are held by banks in order to meet their day-to-day business needs, for example in branches and automated teller machines (ATMs). The category includes, with separate identification, holdings of domestic currency (i.e. euro banknotes and coins for MFIs in the euro area) and foreign currency. As currency only includes banknotes and coins which have been put into issuance by the monetary authorities, NCBs should not report holdings of their own currency as assets, and any such holdings should also not be included by NCBs in the reporting of currency in circulation on the liabilities side.

4.2.2 Currency in circulation

In the euro area, currency in circulation is recorded as a liability of the Eurosystem only. Euro banknotes are issued only by the Eurosystem, unlike in some countries outside the euro area where commercial banks may issue banknotes. Euro coins are, by convention, always treated as a monetary liability of central banks for statistical purposes, even though it is typically governments that are the legal issuers.

With regard to banknotes issued by the Eurosystem, central banks record the amount of their liability according to the banknote allocation key, whereby 8% of total Eurosystem issuance is allocated to the ECB and the remainder to NCBs according to their respective shares in the capital of the ECB.⁵² The liability recorded based on the banknote allocation key is unlikely to coincide with the amount that an NCB has actually put into circulation, and the difference is recorded as a claim on or liability to the Eurosystem. Where the actual amount issued is less than the allocation key amount, the NCB records a claim on the Eurosystem (under “remaining assets”). Where the actual amount issued exceeds the allocation key amount, it records a liability to the Eurosystem (under “remaining liabilities”). As the ECB does not itself

⁵² See the Decisions of the ECB on the issue of euro banknotes on the [ECB's website](#).

put banknotes into circulation, it always records a claim on the Eurosystem under “remaining assets”.

In most euro area countries the legal issuer of euro coins is the central government rather than the central bank (although NCBs may be responsible for actually putting coins into circulation, and the volume of issuance is subject to the approval of the ECB). In statistical terms, euro coins in circulation are part of the monetary aggregates and so are, by convention, always included under the liability category “currency in circulation” on the central bank balance sheet. Where the legal issuer of euro coins is the central government, the NCB also records a notional claim on central government equal to the amount issued under remaining assets.

4.2.3 Specific cases and instruments

4.2.3.1 A new country joins the euro area

Whenever a new country joins the euro area, banknotes and coins denominated in the former national currency which remain outstanding after the adoption of the euro continue to be reported under “cash” (assets) or under “currency in circulation” (liabilities) for 12 months after the enlargement. After this period they are transferred to “remaining assets” or “remaining liabilities” and thus cease to be included in the euro area monetary aggregates.⁵³ Their removal from the monetary aggregates is a reclassification and should not be reflected in monetary growth rates.

4.2.3.2 Commemorative coins intended for circulation

Coins intended for circulation include commemorative coins produced to celebrate special occasions (e.g. in 2007 for the 50th anniversary of the signing of the Treaty of Rome). Countries may issue two commemorative €2 coins per year to celebrate a subject of major national or European relevance. These coins are issued at face value and are meant to be used for making payments. They are legal tender throughout the euro area and must be accepted for payments like any other euro coin. They are recorded under “cash” (assets) or under “currency in circulation” (liabilities).

4.2.3.3 Gold coins and coins not intended for circulation

Gold coins held by MFIs other than central banks should not be treated as cash but as a commodity to be recorded under “non-financial assets (including fixed assets)”.

⁵³ This point is mainly theoretical as MFIs typically transfer banknotes and coins not in circulation to NCBs as soon as they receive them.

However, monetary gold is a financial asset and is reported in a separate category on the assets side of the central bank balance sheet (see also Section 4.11).

Commemorative coins are legal tender and are thus in active circulation. They should be included in currency.

Coins not intended for circulation are normally collector, numismatic or bullion coins, which have (limited) legal tender status (in the country of issue) but are not produced with a view to their use as a means of payment. In contrast to commemorative coins, which are legal tender throughout the euro area, collector coins must be readily distinguishable from coins intended for circulation.

For the purposes of MFI balance sheet statistics, coins that meet at least one of the following three objective criteria would not be considered to be in active circulation:⁵⁴

- (i) coins that have legal tender status in the country of issue but are not produced with a view to their use as a means of payment, at least not in the euro area as a whole;
- (ii) coins that are issued at a price above their face value and are not intended for circulation (this applies, for example, to most coins that are made of precious metals where the issue price will normally, but not always, exceed the face value, but not to normal circulation coins issued in special packages (sets or rolls of coins) at a price above their face value);
- (iii) coins that have a non-standard denomination.

Holdings by MFIs of coins not intended for circulation are to be classified as non-financial assets. With regard to the issuance of coins not intended for circulation, collector coins issued by NCBs are reported under “remaining liabilities”, while collector coins issued by the Treasury that are deemed not to be in circulation are not reported on the statistical balance sheet of the NCB.

4.2.4 Valuation principles for cash and currency in circulation

As assets and liabilities, banknotes and coins in euro are reported at face value⁵⁵ in line with the ESA 2010 (7.64). Currency in circulation (as a liability) excludes amounts held by NCBs as vault cash. Holdings of banknotes and coins in foreign currency are converted into euro at the mid-market closing exchange rate (the mid-point between the buying and selling rates) on the balance sheet date (see also Section 2.5.4).

Since currency is recorded at nominal or face value, a currency transaction will always be recorded at nominal or face value, converted at the market exchange rate

⁵⁴ These criteria apply only to issues denominated in euro, and not to past issues in national currencies.

⁵⁵ The nominal or face value is the value of a coin or banknote stamped or printed on the coin or banknote by the issuing authority.

at the time of the transaction if foreign currency is involved. For national currency, the change in holdings between two balance sheet dates must equal net transactions in the intervening period. Quarterly reporting requirements do not include breakdowns by currency of holdings of non-euro-denominated banknotes and coins. Therefore, for the purposes of compiling transactions the ECB assumes that the currency composition of these positions, for NCBs and other MFIs separately, is the same as that of their deposit liabilities vis-à-vis domestic non-MFI units excluding general government (see also Section 7.2.2 on the calculation of exchange rate adjustments).

Monetary gold held by central banks should be reported at market value in euro. Where changes in outstanding amounts are due to fluctuations in the price of gold in euro, an accompanying revaluation adjustment should be reported. One example is where the price of gold in USD remains unchanged but the USD/EUR exchange rate fluctuates. In this case both effects should be treated as a revaluation adjustment, as opposed to splitting the effect into its two components of a positive exchange rate adjustment and a revaluation adjustment of zero.

4.3 Loans

Regulation ECB/2013/33 defines loans in line with the ESA 2010 as “holdings of financial assets created when creditors lend funds to debtors, which are not evidenced by documents or are evidenced by non-negotiable documents”. As described in Part 2 of Annex II to the Regulation, loans also include assets in the form of deposits placed by reporting agents. This would also cover asset positions of nostro and vostro accounts between two financial institutions.

The ESA 2010 instrument category loans (AF.4) comprises loans created when creditors lend funds to debtors, either directly or through an agent, which are either evidenced by non-negotiable documents or not evidenced by documents at all.⁵⁶ Where loans become negotiable, they are only reclassified from loans to debt securities when there is evidence of secondary market trading (5.122). The ESA 2010 makes a distinction in terms of original maturity between short-term loans (loans with a maturity of one year or less, and loans repayable on demand – AF.41) and long-term loans (loans with a maturity of over one year or no stated maturity – AF.42). The ESA 2010 (5.114) further states that all sectors may incur liabilities in the form of loans, adding that deposit-taking corporations normally record short-term liabilities as deposits, not as loans (in line with MFI balance sheet statistics).

⁵⁶ Non-negotiability exists where ownership of a financial claim is not readily capable of being transferred. The ESA 2010 (5.A1.04) outlines the conditions of negotiability.

4.3.1 Loans granted to households and non-profit institutions serving households by purpose of lending

4.3.1.1 Credit for consumption

Credit for consumption refers to loans granted for mainly personal consumption of goods and services. This includes (without being separately identified) loans to sole proprietors/unincorporated partnerships without legal status if the loan is predominantly used for personal consumption and not for house purchase. Loans included in this category may or may not be collateralised by various forms of security or guarantee. Typical examples of loans in this category are loans granted for the financing of motor vehicles, furniture, domestic appliances and other consumer durables, holiday travel, etc. Overdrafts and credit card loans also typically belong in this category.

4.3.1.2 Lending for house purchase

Lending for house purchase refers to loans granted for the purposes of investing in housing for own use or rental, including building and refurbishments, or for the purchase of land. Loans included in this category are those secured on residential property that are used for house purchase, and other loans for house purchase made on a personal basis or secured against other forms of assets. The category includes (without being separately identified) housing loans to sole proprietors/unincorporated partnerships without legal status, if the housing is predominantly used for personal accommodation.

4.3.1.3 Other lending

Other lending refers to loans other than for consumption and house purchase, and includes loans granted to households for business, debt consolidation, education purposes, etc. Loans to sole proprietors/unincorporated partnerships without legal status predominantly for business purposes (as opposed to personal) are separately identified, unless the conditions for reduced reporting apply. Loans included in this category may or may not be collateralised.

4.3.2 Convenience and extended credit card credit

Credit card debt is credit granted via credit cards, providing convenience credit and extended credit, or delayed debit cards (charge cards), which provide convenience credit only, recorded on dedicated card accounts and not on current or overdraft accounts. Convenience credit is the credit granted at 0% interest in the period between the use of the card and the relevant billing date. Extended credit is the amount of convenience credit left outstanding on the account after the relevant billing

date on which interest or tiered interest (usually greater than 0%) is charged. Extended credit typically requires minimum monthly instalments in order to make full or partial repayments.

In terms of recording credit card debt in MFI balance sheet statistics, the counterparty for such credit is the cardholder in the case of personal cards, or the company holding the card in the case of company cards. In terms of classification by purpose of lending, convenience and extended credit card credit to households should be classified as credit for consumption. For original maturity allocation, convenience credit is allocated to the “up to 1 year” category. Extended credit is also allocated to the “up to 1 year” category unless the applicable payment schedule reflects a maturity of greater than one year. As for loans in general, interest accrued and not yet paid is recorded separately from the underlying instrument.

4.3.3 Revolving loans and overdrafts

Revolving loans are loans, excluding overdrafts and credit card debt, obtained through a line of credit and not yet repaid, where funds can be repeatedly repaid and drawn again (whether in one amount or in instalments) up to an agreed contractual credit limit. Revolving loans have the following specific features in MFI balance sheet statistics:

- (i) the borrower may draw on the facility up to an agreed limit without notifying the lender;
- (ii) the amount of available credit fluctuates as funds are borrowed and repaid;
- (iii) the facility may be used repeatedly;
- (iv) there is no obligation to repay regularly.

As with all loan instruments, amounts available through a line of credit that have not been drawn or have already been repaid are not recorded on the MFI’s balance sheet.

Revolving loans should be allocated to the original maturity category of “up to 1 year” unless additional available information allows for a more accurate maturity allocation. Such additional information should reflect the economic substance of the loan. For example, a lower interest rate (than typical short-term facilities) and/or a relatively constant outstanding amount would imply a longer-term maturity of greater than one year. Similarly, an effective maturity may be calculated based on previously observed behaviour and relevant supporting information. The MFI should report the total amount owed under such facilities, irrespective of whether this is within or beyond agreed credit or maturity limits.

Overdrafts are debit balances on current accounts which allow the borrower to withdraw funds above the balance available. Where a deposit account has an overdraft facility and subsequently becomes overdrawn, the withdrawal to zero is the

withdrawal of a deposit, and the amount of the overdraft is recorded as a loan – see also the ESA 2010 (5.82). A balance should only be considered as an overdraft where the overdraft facility is directly assigned to a current account, otherwise it is considered a standard loan instrument or a revolving loan (albeit for reporting purposes, overdrafts and revolving loans are reported together).

In terms of original maturity allocation, overdrafts should be allocated to the category of “up to 1 year” unless additional available information allows for a more accurate maturity allocation. One example would be where the contract of the credit limit specifies a final maturity date, on which the credit limit will be revoked or must be repaid, of greater than one year. As above, the total amount yet to be repaid is reported irrespective of agreed limits.

4.3.4 Reverse repos

Reverse repos (reverse repurchase agreements) are amounts recorded as loans to reflect the transaction in which the reporting MFI lends out cash in exchange for securities purchased at a given price, under a firm commitment to resell the securities at a fixed price on a specified future date. The reporting of loans includes the cash collateral lent out in reverse repos, as well as the following reverse repo-type operations:

- cash loaned out in exchange for securities temporarily transferred to a third party in the form of securities lending against cash collateral;
- cash loaned out in exchange for securities temporarily transferred to a third party in the form of sale/buyback agreement.

Every reverse repo (or similar operation) involves a counterparty which is receiving the cash collateral. These are repos and are included under “deposits” (see Section 4.4.4).

Reverse repo claims vis-à-vis euro area central counterparties (CCPs) in the other financial intermediaries (except insurance corporations and pension funds) sub-sector (S.125 in ESA 2010) are identified separately.⁵⁷ A CCP is an entity that legally interposes itself between counterparties to contracts traded in financial markets, becoming the buyer to every seller and the seller to every buyer. Since such transactions are often substitutes for bilateral business among MFIs, the additional distinction for the business which is intermediated by CCPs is necessary for a correct interpretation of developments in MFI lending to non-MFIs and the “headline” published euro area series on credit are adjusted accordingly.

⁵⁷ The list of CCPs that have been authorised to offer services and activities in the EU can be found on the [website of the European Securities and Markets Authority \(ESMA\)](#). Note that several CCPs resident in the EU are credit institutions and are hence in the MFI sub-sector. Reverse repos with those counterparties are therefore inter-MFI loans and are not to be included in the separate reporting of positions with central counterparties in the “other financial intermediaries” sub-sector. CCPs which are MFI reporting agents should include repos and reverse repos in the statistical reporting of deposits and loans, regardless of their treatment for accounting or other reporting purposes.

Section 4.5.1.9 details the reporting of short selling of securities under reverse repos, while Section 7.1.2 provides information on the adjustment of the monetary aggregates and lending series to exclude positions with CCPs.

4.3.5 Intragroup positions with deposit-taking corporations

MFIs report intragroup positions separately under “loans” to other MFIs. These comprise loans between euro area deposit-taking corporations that belong to the same group, consisting of a parent and all its directly or indirectly controlled euro area resident group members. This allows for the identification of inter-linkages between credit institutions belonging to the same group within the euro area. Positions should be recorded according to the residency of the group member(s) as domestic or other euro area residents.⁵⁸ See also Section 4.3.9.5 on the distinction between loans/deposits and equity financing.

4.3.6 Syndicated loans

Syndicated loans are single loan agreements in which several institutions participate as lenders; the borrower must be made aware of this in the loan contract. For statistical purposes, only amounts actually disbursed by lenders (not total credit lines) are recorded. The syndicated loan is usually arranged and coordinated by one institution (the lead manager). Each participating MFI reports the amount it has lent as a loan to the borrower, not as a loan to the lead manager. Syndicated loan instruments reported separately by each participating MFI should share the same characteristics.

4.3.7 Notional cash pooling

Cash pooling is a bank service provided by some banks that allows corporates to externalise intragroup cash management and thus manage their global liquidity effectively with lower costs. There are several types of cash pooling agreement.⁵⁹ For example, the cash pool may involve a single legal account that pools the funds of the group and is linked to sub-accounts recording intragroup balances (“single legal account cash pooling”), or separate accounts for each entity of the group which are settled, typically on a daily basis, to bring accounts that are in debit and credit into balance (“physical cash pooling”).

⁵⁸ In principle, intragroup loans and deposits recorded between deposit-taking corporations should be balanced at the domestic and euro area aggregate level. Owing to sampling issues in the case of “tail reporters”, misalignments in the classification of counterparties or other errors, however, this may not necessarily be the case. See also Section 7.1.3 on “excess of inter-MFI liabilities”.

⁵⁹ For a detailed account of cash pooling and the implications for statistics, see “[The statistical classification of cash pooling activities](#)”, *Statistics Paper Series*, No 16, European Central Bank, July 2016.

The type most relevant for MFI balance sheet statistics, however, is notional cash pooling, which is defined for statistical purposes as an arrangement provided by an MFI (or MFIs) to a group of entities (pool participants) where:

- (i) the pool participants each maintain separate accounts;
- (ii) the interest to be paid or received by the MFI is calculated on the basis of a “notional” net position of all accounts in the pool;
- (iii) pool participants may draw down overdrafts backed by deposits of other pool participants, without a transfer of funds between accounts.

In notional cash pooling, all accounts maintain a separate legal status (e.g. IBAN accounts) and the participating entities are the direct counterparties of the bank. The pooling is performed by the bank, which provides liquidity to the counterparties in need by means of overdrafts, generally on condition that the “pool” is in surplus overall. As such, from an economic point of view these loans do not constitute a genuine provision of additional financing to the economy provided by the MFI sector.

In line with Article 8(2) and (3) of Regulation ECB/2013/33, notional cash pool positions should be reported on a gross basis and not netted against any other assets or liabilities. Notional cash pool loans should be reported under “revolving loans and overdrafts” and/or “loans with a maturity of up to and including one year”, as applicable. To separate out the impact of such positions from that of other loans and deposits on the balance sheets of MFIs, statistical information on notional cash pools on the balance sheets of reporting agents is provided by NCBs where the data are available in accordance with Table 5 in Part 1 of Annex II to Guideline ECB/2014/15 (as amended by Guideline ECB/2018/17).⁶⁰ Loans (overdrafts) which are provided by MFIs to pool participants can therefore be separately identified. Loans which are not contractually covered by the cash pool arrangement but are granted to pool participants must not be included in the reporting requirements. Section 7.4 details the adjustment applied by the ECB to the aggregated loan series to derive a growth rate adjusted for notional cash pooling positions.

4.3.8 Loans to non-financial corporations by economic activity

Under Article 21 of Guideline ECB/2014/15, NCBs provide, on a best efforts basis, quarterly data on MFI loans to non-financial corporations by branch of economic activity. These are allocated in accordance with the statistical classification of economic activities in the EU, as set out in Regulation (EC) No 1893/2006 and referred to as NACE Revision 2 (Rev. 2).

To improve the analysis of developments in loans to non-financial corporations in the euro area and individual euro area Member States, data on loans to non-financial

⁶⁰ In the euro area, notional cash pooling services are highly concentrated in the Netherlands, where they have been subject to specific data collection since December 2014. Based on a survey carried out by the ECB in cooperation with NCBs, the scale of notional cash pooling activities in other euro area countries is expected to be relatively small.

corporations by branch of activity is provided by NCBs where the data are available in accordance with Part 19 of Annex II to Guideline ECB/2014/15. The Guideline provides two possible reporting templates for loans depending on the disaggregated nature of data available to NCBs. Data are broken down into varying levels of detail relating to the economic sector that the non-financial corporation operates in, and are reported in respect of domestic and euro area non-financial corporations.

4.3.9 Specific cases and instruments

Regulation ECB/2013/33 (Part 2 of Annex II) indicates how various items are to be treated within the reporting of loans, although they are not separately identified. As in the Regulation, not all specific instruments can be covered by this Manual, so the treatment of the selected products defined in this section should be used as a reference for other products with similar characteristics.

4.3.9.1 Financial leases

Financial leases are defined in Regulation ECB/2013/33 as contracts under which the legal owner of a durable good (lessor) lends it to a third party (lessee) for most if not all of its economic life, in exchange for instalments covering the cost of the good and an imputed interest charge. The lessee, as the economic owner, enjoys all the benefits from the use of the good and incurs the costs and risks of ownership. In addition it is the lessee, as the economic owner, that must provide any necessary repair and maintenance of the good. For statistical purposes, financial leases are treated as loans from the lessor (here an MFI) to the lessee (third party), with payments treated as loan repayments rather than rentals on the asset. The durable goods which are the subject of the lease are recorded not on the MFI's balance sheet but on the balance sheet of the lessee (and valued at the purchase price paid by the lessor).⁶¹ Hire-purchase agreements are considered a type of financial lease.

4.3.9.2 Holdings of non-negotiable securities

Holdings of debt securities which are not negotiable and cannot be traded on secondary markets are recorded as loans.⁶² These are instruments where the transfer of legal ownership is subject to restrictions which imply that they cannot be marketed or, although they are technically negotiable, cannot be traded owing to the absence of an organised market. Non-negotiable instruments that subsequently become negotiable and can be traded on secondary markets should be reclassified as debt securities. See also Section 4.5.1.1 on debt securities which are issued.

⁶¹ Financial leases are also defined by the ESA 2010 (15.13). See Section 34.11 on the recording of operating leases by MFIs (as lessees) under IFRS 16. Operating leases (which are unlikely to be offered by MFIs (as lessors)) are not included under the balance sheet item "loans".

⁶² Regulation ECB/2013/33 provides that holdings of debt securities which are negotiable and are usually traded on secondary markets are recorded as securities other than shares.

4.3.9.3 Traded loans and *Schuldscheine*

Loans that have de facto become negotiable are called traded loans. Where there is no evidence of secondary market trading in the traded loans, they are classified as loans. Otherwise, they are classified as debt securities (see also Section 4.5.1).

German *Schuldscheine* and similar instruments (e.g. promissory notes) are classified as loans for the purposes of MFI balance sheet statistics, since they are considered to be more like loans than securities based on their characteristics at the date of contract or issuance. Although they can be transferred (usually at nominal value, and among MFIs), they are not negotiable (e.g. there is no bid-ask spread) and are subject to restrictions on the number of times they may be transferred.

4.3.9.4 Subordinated debt in the form of loans

An MFI's holdings of subordinated debt in the form of loans are classified as loans. These are non-negotiable instruments constituting a subsidiary claim on the issuer that can be exercised only after all higher-status claims (i.e. deposits, loans) have been satisfied, giving them some of the characteristics of equity. For MFI balance sheet reporting purposes, subordinated debt is classified as either "loans" or "debt securities" according to the nature and characteristics of the financial instrument (see also Section 4.5).

Where holdings of all forms of subordinated debt are recorded as a single figure for statistical purposes, the reporting MFI should record the amount under "debt securities" on the grounds that most subordinated debt is in security form.

4.3.9.5 Intragroup loans versus capital endowments

For branches and subsidiaries, financing via inter-company or interbank funding can be classified either as inter-company lending or as capital endowments (equity) in a branch or subsidiary. As with subordinated debt above, positions should be classified according to the criteria of loan and equity instruments.

The ESA 2010 (5.113(c)) states that loans are characterised as an unconditional debt which has to be repaid at maturity and which is interest-bearing. This condition implies that loans should have or should foresee a final maturity date.⁶³ A further consideration is the non-negotiable nature of loans as discussed at the beginning of Section 4.3. In addition, as per Section 4.3.9.2 non-negotiable debt instruments held or issued are classified as either loans or deposits.

In terms of classifying branch or subsidiary funding as equity, certain equity criteria must be evident. As per Section 4.6, equity is defined as a financial asset that has a

⁶³ Certain loan instruments may have undefined maturity, such as some overdraft facilities and loans with undefined legal maturity, but the underlying business needs would differ from financing offered by means of equity financing (long-term capital endowment).

claim on the residual value or net worth of the issuing entity after the claims of all other creditors have been met, i.e. in the case of default all third-party liabilities are repaid first. Equity securities typically do not have a maturity date (it can be unlimited or perpetual) and there is no obligation on the issuer to pay the holder a predetermined amount. An instrument such as a perpetual loan with no obligation to make payments, no stated maturity and, in the case of default, where all third-party liabilities are repaid first is classified as equity since it aligns with the characteristics of equity as outlined in Section 4.6.

For recording purposes, where a reporting MFI is the provider of intragroup funding that meets the criteria of loans it should be recorded as such, with similar reporting applying in the case of equity. Where the reporting MFI is the recipient of intragroup funding that meets the criteria of loans, it is recorded as a deposit. Sections 4.3.5 and 4.4.5 describe the reporting requirements should both parties be deposit-taking corporations.

4.3.9.6 Loans sold or acquired at a discount

MFIs may sell loans at a price which is different from the valuation on the statistical balance sheet before the disposal. This may arise in particular with a sale of non-performing loans. In accordance with Article 8(2) of Regulation ECB/2013/33, loans should be reported on the balance sheet at the principal amount outstanding excluding any amounts written down or written off, unless the NCB allows MFIs to report loans at the principal amount outstanding excluding provisions in accordance with Article 8(4). A revaluation adjustment (i.e. a write-off/write-down at the time of sale) should be recorded to account for the difference between the change in the stock of loans arising from the loan sale and the transaction value (i.e. the sale price). This aligns with the ESA 2010 (6.58), which requires the difference between the redemption price and the transaction price of a sold loan to be recorded under the revaluation account of the seller and the purchaser at the time of the transaction.⁶⁴

Similarly, if an MFI acquires loans at a discount it should record a positive revaluation adjustment which takes into account the difference between the purchase price of the loans and the change in stocks resulting from the acquisition. Further information on the recording of revaluation adjustments for write-offs/write-downs, including an example at the time of sale, is provided in Section 5.4. The recording of loans acquired by MFIs at a discount can be treated analogously to the case of a sale, as in the example in Section 5.4.

Note that loans classified as held for sale continue to be reported at their gross nominal amount on the MFI statistical balance sheet under their original maturity and original category of “loans” until they are transferred or sold (similar to the treatment

⁶⁴ The revaluation account in the ESA 2010 (8.54) “records changes in the value of assets and liabilities due to changes in their prices” and is comparable to a “revaluation adjustment” in MFI balance sheet statistics.

of bad debt loans in Section 4.3.9.7). Under IFRS 5(6), assets held for sale may be classified and reported separate to the relevant instrument category, but Article 8(2) of Regulation ECB/2013/33 and the ESA 2010 (7.70) requires loans to be reported at their principal amount outstanding at the end of the month irrespective of the nature of the loan.

4.3.9.7 Bad loans

Bad loans are those which are overdue or otherwise identified as being impaired. They are not identified separately in MFI balance sheet statistics and are reported in a similar way to other loans, i.e. at the principal amount outstanding excluding any amounts written down or written off, unless the NCB allows MFIs to report loans at the principal amount outstanding excluding provisions in accordance with Article 8(4) of Regulation ECB/2013/33.

Where the loan is still overdue at the time when contractually it should have been fully paid off, the MFI should continue to record the loan's original maturity according to the contractual terms (until the loan is repaid, written off, or the maturity is renegotiated). For the reporting of remaining maturity, i.e. the period from the reference date until the final scheduled payment, loans which are overdue after the final scheduled payment should be excluded from the remaining maturity breakdowns. Where overdue or impaired loans form part of a debt restructuring or become immediately repayable (and there is a contractual agreement between creditor and debtor to this effect), the original maturity remains unchanged unless the final maturity date is prolonged. See also Section 4.3.9.9 on loan renegotiations below.

While accrued interest is recorded under remaining assets, unpaid interest on overdue or bad loans is recorded alongside the loan to which it relates (see also Section 4.3.10). Interest arrears should be included alongside the relevant instrument, to the extent that the instrument is recorded on the balance sheet. Where the interest arrears are no longer recorded on the accounting balance sheet, write-offs (revaluation adjustments) should be made to reflect the removal of the unpaid interest from the asset category, thus avoiding a negative transaction under "loans".

Bad loans are defined in accordance with the definition of a default in the Capital Requirements Regulation (CRR)⁶⁵ for the purposes of MFI balance sheet statistics.⁶⁶ Article 178(1) of the CRR states that "A default shall be considered to have occurred with regard to a particular obligor when either or both of the two following events have taken place:

- (i) the institution considers that the obligor is unlikely to pay its credit obligations to the institution, the parent undertaking or any of its

⁶⁵ Regulation (EU) No 575/2013 of the European Parliament and of the Council of 26 June 2013 on prudential requirements for credit institutions and investment firms and amending Regulation (EU) No 648/2012 (OJ L 176, 27.6.2013, p. 1).

⁶⁶ MFI interest rate statistics adhere to the MFI balance sheet statistics definition.

subsidiaries in full, without recourse by the institution to actions such as realising security (if held);

- (ii) the obligor is past due more than 90 days on any material credit obligation to the institution, the parent undertaking or any of its subsidiaries.”

The statistical definition is based on the CRR, while the accounting definition for FINREP is defined in accordance with international accounting standards. Although bad loans are not identified separately in MFI balance sheet statistics, they are defined in Regulation ECB/2013/33 for the purposes of MFI interest rate statistics as collected under Regulation ECB/2013/34.

4.3.9.8 Repossession in the event of loan default

As noted in Section 4.3.9.7 above, overdue or otherwise impaired loans are reported in a similar way to other loans. If the MFI takes possession of the collateral underlying the loan, the outstanding amount of the loan on the balance sheet is reduced (similar to a repayment of the loan). The amount the loan is reduced by should equal the recovery amount of the collateral upon sale, or the expected recovery value where there is a lag between repossession and disposal. This amount may not equal the full value of the outstanding loan, thus giving rise to a shortfall. Depending on the reporting MFI's recourse to the borrower, the shortfall loan may be further pursued (where recourse to the borrower exists) or may result in debt cancellation/debt forgiveness (without recourse).

4.3.9.9 Loan renegotiations

As defined in Regulation ECB/2013/34 (Section VI of Annex I) on MFI interest rate statistics, renegotiation refers to the active involvement of the borrower in adjusting the terms and conditions of an existing deposit or loan contract, including the interest rate. Extensions and other adjustments of the terms and conditions that are carried out automatically, i.e. without any active involvement on the part of customers, are therefore not renegotiations.⁶⁷ All renegotiations are considered as “new business” in MFI interest rate statistics but not as “pure new loans”.⁶⁸

In line with MFI interest rate statistics and AnaCredit reporting, the original maturity of a renegotiated instrument does not change.⁶⁹ A loan's original maturity is based on

⁶⁷ Regulation (EU) 2016/867 of the European Central Bank of 18 May 2016 on the collection of granular credit and credit risk data (ECB/2016/13) (OJ L 144, 1.6.2016, p.44) goes further and differentiates between renegotiation and forbearance (concessions towards a debtor facing or about to face difficulties in meeting its financial commitments), where renegotiation refers to changes under normal market conditions as opposed to below market conditions. Both are classed as renegotiation in MFI balance sheet statistics.

⁶⁸ See Manual on MFI interest rate statistics, Section 5.4.2.

⁶⁹ See Manual on MFI interest rate statistics, Section 7.7.4, and AnaCredit Reporting Manual (II), Section 3.4.4.

the difference between the settlement date of the loan and the date of the final scheduled payment, whereby the date of the final scheduled payment is the only date that can be impacted by a loan renegotiation.

In practice, therefore, a transaction would only ensue when the new terms and conditions result in an increase in the principal amount advanced, or when there is a movement between reported items. For example, this may be a change to/from euro-denominated currency, or an amendment to the legal final maturity date which causes the loan to move between the requested loan maturity brackets in the MFI balance sheet statistics reporting scheme. A change in the interest rate, payment frequency, collateral, or guarantor of the loan, meanwhile, would result in no visible transaction in MFI balance sheet statistics.

Where a loan is refinanced (as opposed to restructured or rescheduled) and a new financial product is effectively advanced to replace the original product, it is treated as a transaction with a new settlement date and hence a new original maturity applies. The signing of a new contract is not a relevant consideration in a renegotiation; the consideration is whether or not a new instrument is advanced as opposed to the terms and conditions of an existing instrument being amended. This situation is not treated as a reclassification.

4.3.9.10 Index-linked loans

Loans may be formally denominated in one currency but the principal and/or interest payments made in or indexed to a different currency. The ESA 2010 (5.94) treatment for debt securities can be applied analogously in the case of loans, where instruments with both principal and interest indexed to a currency are classified and treated as though they are denominated in that currency (rather than indexed to it). Instruments may also be partially index-linked, for example where either the amount to be paid at maturity or the periodic payments are linked to the foreign currency. For the purposes of statistical reporting, such loans should be treated as denominated in the domestic currency.⁷⁰

The above treatment also applies to similar deposit and debt security instruments.⁷¹ As per Section 2.5.4 above, MFI balance sheet statistics require that all amounts are reported in euro.

4.3.9.11 Loans with undefined legal maturity

Some loan products which are typically long-term in nature may have an undefined maturity (e.g. perpetual loans⁷² or loans which mature at the end of the debtor's

⁷⁰ See the BPM6 (11.50(c)) for the treatment of index-linked instruments, applied analogously in this case.

⁷¹ The Manual on MFI interest rate statistics, Section 7.3, and the AnaCredit Reporting Manual (II), Section 3.4.3, outline similar treatment for loans reported under Regulation ECB/2014/34 and Regulation ECB/2016/13 respectively.

⁷² See Section 4.3.9.5 on the case of a perpetual loan which meets the definition of equity.

lifetime). Principal and interest may or may not be paid over the loan's lifetime (interest will still accrue and fall due). These loans should be classified to the original maturity category of "over 5 years" unless additional available information allows for a more accurate maturity allocation.

4.3.9.12 Loan guarantees

A loan guarantee is an arrangement whereby a guarantor agrees to pay a creditor if a debtor defaults. The loan is initially recorded vis-à-vis the borrower (debtor), with the guarantee – as a contingent liability – recorded off-balance sheet as per Regulation ECB/2013/33. If the debtor defaults and the guarantee is called, the loan should then be recorded vis-à-vis the guarantor instead of the original debtor.

Loan guarantees are considered a type of debt assumption, and as described in Section 5.7.4 do not trigger the recording of reclassification adjustments by the creditor (in this case the reporting MFI). They are treated as a capital transfer (i.e. a transaction) as they involve the mutual agreement of all parties.

4.3.9.13 Loans granted on a trust basis (fiduciary loans)

Loans granted on a trust basis are loans made by an MFI (as the trustee/fiduciary) on behalf of a third party (the trustor/beneficiary), with the latter assuming the credit risk and the MFI being responsible only for managing the loan. Trust loans are not recorded on the balance sheet of the trustee/fiduciary MFI where the risks and rewards of ownership of the funds remain with the beneficiary. They are not regarded as an asset of the MFI in the event that the MFI goes into liquidation.

In accordance with Regulation ECB/2013/33, the risks and rewards of ownership remain with the beneficiary where: (i) the beneficiary assumes the credit risk of the loan, i.e. the trustee is responsible only for the administrative management of the loan; or (ii) the beneficiary's investment is guaranteed against loss, should the trustee go into liquidation, i.e. the trust loan is not part of the assets of the trustee that can be distributed in the event of bankruptcy. (See also Section 4.4.8.7 for the treatment of funds received on a trust basis).

4.3.9.14 Bill-based lending operations (trade bills)

A bill of exchange is an unconditional order in writing whereby one party (the drawer) instructs another (the drawee) to pay a certain amount of money at a future date to the payee (the payee may be the drawer him/herself or a third party). The payment can take place on demand, and either immediately (sight bill) or on a fixed or determinable future date (term bill). Bills of exchange are negotiable, in the sense that the payee (and all future holders) may endorse it to a new party, who then becomes the new beneficiary of the bill. When a bill is transferred, all associated risks and rewards are also transferred and the holder has a primary claim on the

drawee, but only a contingent claim on previous holders. Trade bills are bills of exchange used as a means of payment for services or goods.

While the Regulation does not specify how bill-based operations should be treated in MFI balance sheet statistics, the ESA 2010 (5.125) states that “trade bills drawn on a customer by the supplier of goods and services, which are subsequently discounted by the supplier with a financial corporation, become a claim by a third party on the customer”. The recommendation is to treat a bill of exchange as a claim of the payee (or the subsequent holders) on the drawee, who is the final debtor (the drawee principle), and not on the previous holder(s) (the presenter principle). With regard to instrument classification, they should be recorded under “debt securities” if they are expected to be traded on an organised market, or otherwise under “loans” or “deposits” (like non-negotiable debt securities). The degree of standardisation of the instruments and the structure of the markets on which they can be traded can also be used as criteria.

Where an MFI is the holder of a bill of exchange, the ECB recommends the following:

- reporting agents should record bills of exchange under “loans” or “debt securities” according to the principles outlined above;
- reporting agents should classify bills of exchange as claims on the drawee and not on the previous holder.

An MFI can also be the drawee of a bill of exchange, as is the case with bank acceptances. Where the MFI is the drawee, the ECB recommends the following:

- reporting agents should record the bills drawn on them under “deposits” vis-à-vis the payee (this party is typically the first and last beneficiary of the instrument if it does not go into circulation) or, if the bills are expected to go into circulation, under “debt securities issued” (in which case the holder is not known and no counterparty sector breakdown is required);⁷³
- as a counter entry, reporting agents should record a loan to the drawer (i.e. to the party who asked the bank for the acceptance) or, if the bill is drawn on a deposit, a decrease in the deposits placed by the drawer.

Trade bills (bills of exchange used as a means of payment for services or goods) are distinct from trade credits (credit extended directly by the suppliers of goods and services to their customers). In line with the ESA 2010 (5.237), trade credits are recorded as remaining assets/liabilities (see also Section 4.10).

⁷³ In some countries, bank acceptances are considered by default to be in circulation (and are therefore classified as securities) unless they are sold back to the issuing bank.

4.3.9.15 Factoring and project finance

Factoring refers to a transaction whereby an MFI purchases accounts receivable (i.e. invoices) from a third party. Specifically, it is the sale of a firm's (the factoring client's) claims (in full or in part) recorded under accounts receivable (in the form of invoices), representing money due from its customers, to a financial institution known as a factoring company. The factoring company, which may be an MFI, buys the receivables at a price which is lower than the face value of the invoice, thereby effectively charging the applicable fees and interest. The factoring company (in this case the reporting MFI) manages the sales ledger and the collection of the accounts under the terms agreed by the factoring client (firm). The customers send their payments directly to the factoring company (reporting MFI). Finance is therefore extended for the duration of the trade debt. MFIs acting as factoring companies should record their factoring operations as loans. Factoring may also be referred to as trade receivables or invoice discounting, but the following guidance applies only where the factoring company is the reporting MFI who purchases accounts receivable from a third party. Forfeiting operations are treated analogously to non-recourse factoring.

The factoring company (MFI) may assume the full risk of default by the customer (non-recourse factoring), or this risk may be retained by the factoring client, in which case the factoring company is able to hold the factoring client liable if a debtor is unable to pay (recourse factoring). In particular, in recourse factoring the factoring company (MFI) buys the receivables at a discount to the face value of the invoice. This discount is retained as collateral to cover the risks associated with the operation. Upon payment of the invoices by the customers, the factoring company transmits the proceeds net of the advanced cash and the applicable fees and interest charges to the factoring client. In non-recourse factoring, however, the factoring company (MFI) assumes the full risk of default by the customer and fees and interest are therefore charged immediately to the factoring client, who receives the full amount of the trade credit net of these charges.⁷⁴ For the purposes of counterparty sector classification in non-recourse factoring, the customers are the counterparty as the factoring company (MFI) assumes the risk. In recourse factoring, the ultimate debtor is the factoring client (firm) who should then be the counterparty of the loan. Factoring operations should be recorded at the value of the invoice less the discount retained as collateral (as per example A below), as opposed to fair valuation as allowed under international accounting standards.

Assets arising from **project finance** are also recorded as loans. Project finance refers to loans provided to entities which were created specifically to finance and/or operate physical assets and where the primary source of repayment of the obligations is the income generated by the assets being financed, rather than the independent capacity of a broader commercial enterprise.

⁷⁴ Fees and interest charges of non-recourse factoring are usually higher than those of recourse factoring, owing to the different service provided and risk borne by the factoring company.

Example A

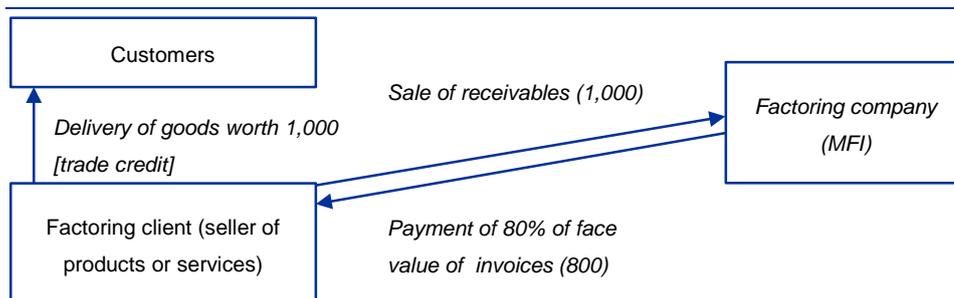
Recourse factoring

This example relates to recourse factoring, where the risk of default by the customer is retained by the factoring client (meaning that the factoring company, in this example an MFI, is able to hold the factoring client liable if a customer is unable to pay). Non-recourse factoring should be treated analogously.

The factoring client (firm) bills its customers and sends copies of the invoices amounting to 1,000 to the factoring company (the reporting MFI). The factoring company then advances to the client, for example, 80% of the face value of the invoices. The other 20% is retained as collateral.

Transactions at the start of the factoring agreement

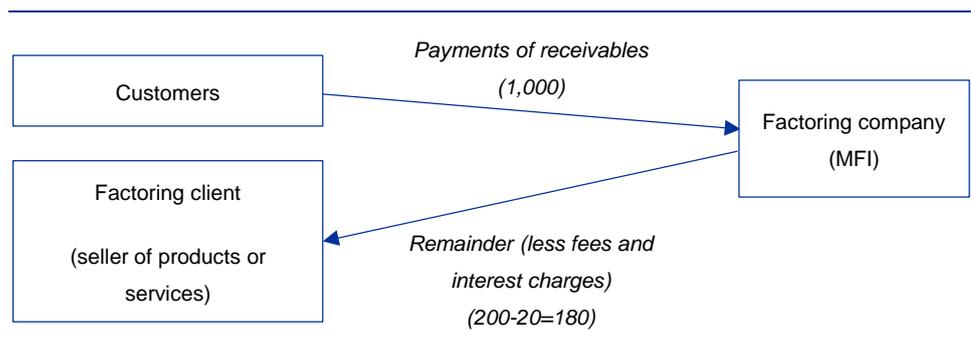
Face value of company's invoices	1,000
Reserve fund held as collateral	200
Cash advanced to client by the factoring company	800



The factoring company (MFI) records a loan to the factoring client of 800, matched on the balance sheet by an outflow of cash. Once the factoring company has received payment of 1,000 from the customers in respect of the outstanding invoices, it will release to the client the retained amount of the invoice (200) minus the appropriate financing fees and interest on the advanced cash (for example 2%). In terms of balance sheet flows, the inflow of cash (1,000) is matched by an outflow of cash to the factoring client (180), the cancellation of the loan to the factoring client (800) and an increase in capital and reserves via profit and loss equal to the total proceeds from fees and interest (20).

If the customers pay only a part of their debts, the factoring company uses the reserve fund held as collateral to cover the difference. If the fund is not sufficient to cover the difference, a claim would arise vis-à-vis the factoring client for the amount in excess of the reserve fund.

Transactions upon payment of receivables	
Reserve fund paid to client less fees and interest	180
Cash proceeds retained by the factoring company (fees and interest)	20



A similar example could be drawn up for non-recourse factoring, where the factoring company assumes the full risk of default by the customer. In this case a loan would be recorded vis-à-vis the customer for an amount equal to the trade credit. The factoring client receives the full amount of the trade credit net of fees and interest charges from the reporting MFI.

4.3.9.16 NCBs' external reserves

NCBs' external reserves in the form of loans are classified as loans for the purposes of MFI balance sheet statistics. See Section 4.11 below for further details on the external reserves of the Eurosystem.

4.3.10 Valuation principles of loans

Article 8(2) of Regulation ECB/2013/33 states that "Deposit liabilities and loans shall be reported at their principal amount outstanding at the end of the month. Write-offs and write-downs as determined by the relevant accounting practices shall be excluded from this amount". This compares with the ESA 2010 (7.70), which requires loans to be valued at the amount of principal that the debtor is contractually obliged to repay to the creditor, irrespective of whether the loans are performing or non-performing. Regulation ECB/2013/33 also states that "Deposit liabilities and loans shall not be netted against any other assets or liabilities".

Further valuation rules are as follows.

- Loans are to be reported at the nominal amount outstanding (and not, for example, at fair value).
- Loans are to be reported by MFIs on a gross basis, i.e. without regard to any provisions made against them. Doubt about the debtor's ability to repay should be reflected on the balance sheet only when a loan is written down or written off.
- The MFI must report the amount of write-offs and write-downs in the reporting period, with a breakdown by sector of counterparty. This requirement should include write-offs and write-downs recognised when a loan is sold or transferred to another party. Loan write-offs are treated in MFI balance sheet statistics as "revaluation adjustments", whereas in the ESA 2010 (6.14) and in the international investment position they are regarded as "changes in volume" (Part 1, Section 2 of Annex IV to Guideline ECB/2014/15). Since write-offs (and write-downs) are the only revaluation item affecting the instrument category "loans", however, MFI balance sheet data can easily be converted to the ESA 2010 basis for inclusion in financial accounts or for comparison with the international investment position. A detailed discussion of the reporting of write-downs and write-offs is provided in Section 5.4.
- Despite the general requirement for gross reporting, Article 8(4) of Regulation ECB/2013/33 allows for the reporting of provisioned loans net of provisions provided that such reporting practices are applied by all resident reporting agents and it is necessary to maintain continuity in the statistical valuation of loans. If loans are reported net of provisions, MFIs should report any change in provisioning in line with Guideline ECB/2014/15 (Part 2 of Annex IV), which states that a revaluation adjustment "also reflects the changes in the level of loan loss provisions, for instance if the outstanding stocks are recorded net of provisions pursuant to Article 8(4) of Regulation (EU) No 1071/2013 (ECB/2013/33). Losses recognised at the time the loans are sold or transferred to a third party are also included, where identifiable" (this is to ensure that the recorded transactions in loans and the change in their balance sheet value can be reconciled).
- Interest receivable on loans should be recorded on the balance sheet as it accrues rather than when it is actually received, and under the item "accrued interest on loans", a sub-item of the category "remaining assets". Accrued interest is excluded from the loan to which it relates. The ESA 2010 also requires interest to be recorded as it accrues, not when it is paid (4.50, 5.43), but requires the accruing interest to be recorded in the appropriate instrument category (5.242) rather than under "remaining assets". The treatment in MFI balance sheet statistics is preferred for monetary policy analysis, since only loans actually extended – net of repayments – are recorded and not the larger amounts including accruing interest.

- Where loan interest falls due and remains unpaid, it should be included in the outstanding nominal amount of the loan.⁷⁵ Interest on overdue or bad loans is also recorded alongside the loan to which it relates (see also Section 4.3.9.7). Should negative interest rates on loans advanced be a consideration, they are treated analogously to negative interest on deposits in Section 4.4.9 and recorded with a negative sign under “remaining assets” until payment falls due.
- The transaction value of loans excludes fees and any other charges.
- MFIs must distinguish between loans denominated in euro and those denominated in foreign currency in monthly reporting. When submitting MFI balance sheet data to the ECB, NCBs ensure that asset (and liability) positions denominated in foreign currencies are converted into euro using market exchange rates (see also Section 2.5.4). MFIs report the amount of loans denominated in each of the main foreign currencies on a quarterly basis, and this information is used by the ECB to remove (as an approximation) the effect of exchange rate changes for the purposes of compiling “flows” data.
- Loans are recorded when they are disbursed (i.e. when they are paid out to the borrower) and not when they are agreed (i.e. when the contract is signed). See also Section 2.5.6 “Time of recording”.

4.3.11 Loan securitisation and other loan transfers

Securitisations and other loan transfers can have a significant impact on the balance sheets of MFIs, and more importantly on month-to-month loan transactions. For this reason, Regulation ECB/2013/33 includes requirements on MFI reporting agents to provide data on securitisation and other loan transfer activities, including on loans that are derecognised from their balance sheets for which they act as servicer (see Section 3.1.1.1 on reporting requirements). These data allow the loans series to be “adjusted” so that credit to the real economy can be properly interpreted, ignoring distortions arising from transfers off of (or onto) MFI balance sheets (see also Section 7.4). These distortions might arise from securitisations, intragroup reorganisations (e.g. a financial corporation engaged in lending transfers its loan portfolio to an MFI in the same group; see also Section 5.6.1), restructurings of cross-border banking groups, or trading of syndicated loans (see Example B below).

While additional related data on the securitisation activities of MFIs are collected outside of Regulation ECB/2013/33, this Manual focuses on securitisation as it affects MFI balance sheet statistics. Other aspects (e.g. the functioning and operations of FVCs and the structure of financial markets) are not considered here.

⁷⁵ This is consistent with the ESA 2010 (5.242 and 5.44) and Section 4.4.9 of the AnaCredit Reporting Manual (II), underlying Regulation ECB/2016/13.

Example B

A domestic MFI sells its share of a syndicated loan to a foreign MFI

A domestic MFI has a share in a syndicated loan to (domestic) non-financial corporation A (for a total amount of 20). A foreign MFI buys the share from the domestic MFI. The initial balance sheets of the two MFIs are as follows:

Domestic MFI			
Assets		Liabilities	
Loans and deposits	100	Loans and deposits	70
o/w syndicated loans to corporate A	20	Capital and reserves	30
Total assets	100	Total liabilities	100

Foreign MFI			
Assets		Liabilities	
Cash	20	Loans and deposits	60
Loans and deposits	80	Capital and reserves	40
Total assets	100	Total liabilities	100

The foreign MFI purchases the share in the loan for 20 in cash. The balance sheets become:

Domestic MFI			
Assets		Liabilities	
Cash	20	Loans and deposits	70
Loan and deposits	80	Capital and reserves	30
Total assets	100	Total liabilities	100

Foreign MFI			
Assets		Liabilities	
Cash	100	Loans and deposits	60
o/w syndicated loans to corporate A	20	Capital and reserves	40
Total assets	100	Total liabilities	100

The asset transfer and its counterpart are both recorded as transactions. As a result of this operation, loans to non-financial corporations provided by domestic MFIs fall by 20, while loans to non-financial corporations reported by foreign MFIs rise by 20.

In terms of the reporting requirements of loans securitised or otherwise transferred, as outlined below, the operation is reported if the acquiring MFI is resident in another euro area country.

4.3.11.1 Key concepts and definitions

Securitisation

Securitisation, in general terms, is a practice where an asset or a pool of cash flow-producing assets is converted into marketable securities. It allows the originator of a loan (here an MFI) to transfer the loan itself (or part of it), or sometimes only the credit risk that the borrower will default, to another entity. In effect, it allows the transfer of credit risk and the creation of liquid instruments out of normally illiquid loans. For the purposes of MFI balance sheet statistics, Regulation ECB/2013/33 defines a securitisation as a transaction that is either:

- (i) a traditional securitisation as defined in Article 4 of the CRR; and/or
- (ii) a securitisation as defined in Article 1 of Regulation ECB/2013/40⁷⁶.

Securitisation operations under (i), the CRR, are those where the credit risk associated with an exposure or pool of exposures is tranching and the subordination of tranches determines the distribution of losses on the underlying assets among the holders of related asset-backed securities (payments must also be dependent on the performance of the exposure).⁷⁷ In addition, the securities issued do not represent payment obligations of the originator institution. The CRR also defines traditional securitisation as the economic transfer of the exposures being securitised from the originator institution to a securitisation special-purpose entity (SSPE) or through sub-participation by an SSPE.⁷⁸ Securitisation operations under (ii), Regulation ECB/2013/40, are those where an asset or pool of assets, or the associated credit risk, is transferred to an entity (FVC) that is separate from the originator and is created for or serves the purpose of the transaction or scheme. There is no requirement under Regulation ECB/2013/40 for the financing instruments issued from the securitisation transaction or scheme to be tranching (the ESA 2010 (5.104) also defines a securitisation operation without any tranching stipulation). In this

⁷⁶ Regulation (EU) No 1075/2013 of the ECB of 18 October 2013 concerning statistics on the assets and liabilities of financial vehicle corporations engaged in securitisation transactions (recast) (ECB/2013/40) (OJ L 297, 7.11.2013, p. 107).

⁷⁷ Regulation ECB/2016/13 on AnaCredit reporting follows the CRR definition of a securitisation.

⁷⁸ The financial vehicle corporation (FVC) definition in Regulation ECB/2013/40 does not exactly match the corresponding concept of SSPE used in Regulation (EU) No 575/2013 (see also Section 8.6 on the differences in supervisory and statistical reporting). While FVCs may have secondary activities in addition to their principal activity of performing securitisation transactions, SSPEs are required to limit their business to securitisation. FVCs which undertake secondary activities may therefore not be classified as SSPEs.

respect, the expectation would be that SSPEs are also classified as FVCs, but that the population of FVCs is broader.

In a “traditional” securitisation there is a transfer of loans from an MFI to an FVC. The impact of this transfer on the MFI’s balance sheet depends on the applicable accounting standards. This is dealt with in more detail in the following section on derecognition.

“Synthetic” securitisations involve a transfer of credit risk without the transfer of the assets themselves. The credit risk may be transferred from the MFI to the FVC via credit default swaps, guarantees or similar mechanisms, which effectively insure the MFI against the default of the borrower. The MFI is said to be buying protection on a reference portfolio of underlying assets, and the FVC is said to be selling protection. The proceeds of the FVC’s debt securities issuance are used to acquire assets to place as collateral against a default in the underlying pool of assets. This collateral often takes the form of a deposit with the MFI originating the loans, or it may be invested by the FVC in high grade assets. If the collateral raised by the issuance of debt securities by the FVC in a synthetic securitisation is equivalent to the exposure to the reference portfolio on which it has sold protection, the securitisation is said to be “fully funded”. In some securitisations the collateral may not fully reflect the exposure but may be related to expected losses, including recovery value in the event of default on the reference portfolio. Synthetic securitisations are not reported separately for the purposes of MFI balance sheet statistics and should not be included in the reporting requirements for securitised loans or other loan transfers.

Derecognition

MFI balance sheet statistics differentiate between securitised loans transferred which are derecognised (removed from the balance sheet), and loans which are not derecognised and so remain on the MFI’s balance sheet.

For the analysis of MFI balance sheets and credit developments, loan sales (or purchases) which result in a decrease (or increase) in reported loan stocks are the most relevant. The net impact of loan derecognition is therefore an important feature of the statistical requirements for securitisations and other loan transfers. A stylised example of the treatment of a sale of loans by an MFI to an FVC with derecognition is provided in Example C below.

A transfer in the legal ownership of assets may not necessarily result in those assets being derecognised from the MFI balance sheet. Under IFRS 9 the derecognition of assets is subject to an assessment of whether or not substantially all the risks and rewards of ownership have been transferred with the asset. If substantially all the risks and rewards of ownership have been retained by the MFI, it must continue to recognise the asset on its balance sheet. In addition, if the MFI has neither retained nor transferred substantially all of the risks and rewards of ownership of the asset and has not relinquished control of the asset, it must continue to recognise the asset to the extent of its continuing involvement. In the case of a loan securitisation without derecognition, the reporting MFI continues to report the securitised loans on its

balance sheet together with a liability which counterbalances the consideration received for the sale.⁷⁹ A stylised example of the treatment of a sale of loans by an MFI to an FVC without derecognition is provided in Example D below.

Example C

Sale of loans with derecognition

An MFI sells at face value loans recorded on its balance sheet at 100. It receives from the FVC 50 in cash and 50 in the senior tranches of the securities issued by the FVC. If expected losses in the portfolio are (for example) 15 and the FVC's junior tranches amount to 50, all risks of the portfolio are deemed to have been transferred through the junior tranches and under IFRS 9 the MFI is allowed to derecognise the portfolio of securitised loans. The MFI records a reduction of 100 in loans on its balance sheet in the reference month, matched by increased holdings of 50 each in cash and FVC securities.

	Assets	Liabilities
Cash	+50	
FVC securities	+50	
Loans	-100	

Assuming that the reporting MFI continues to service the loans, it will report the outstanding amounts of serviced loans of 100 (less any possible redemptions taking place in the reporting period).

Example D

Sale of loans without derecognition

In this case the 50 in FVC securities received by the originating MFI consists of junior tranches only. Risks related to the loans are thus deemed to remain with the MFI, meaning that the loan portfolio cannot be derecognised from the MFI balance sheet. The securitisation is therefore effectively treated as secured borrowing by the MFI. The MFI reports in the reference month receipts from the FVC of 50 in cash and 50 in securities issued by the FVC, but this time records no change in holdings of loans. Instead, a deposit liability of 100 is recorded under deposits with agreed maturity over two years.

⁷⁹ By convention, a deposit with agreed maturity over two years is recorded vis-à-vis the transferee. In economic terms, it is similar to a case where an MFI has itself borrowed against collateral provided by the loans.

	Assets	Liabilities
Cash	+50	
FVC securities	+50	
Deposits with agreed maturity over 2 years (liabilities side)		+100

In accordance with Regulation ECB/2013/33, the MFI must not net the FVC securities acquired against the deposit liability arising from the securitisation. As in Example C above, if the reporting MFI continues to service the loans it will report the outstanding amounts of serviced loans of 100.

4.3.11.1.3 Difference between loan securitisation and covered bonds

Covered bond issuance is governed by special legal frameworks and subject to special prudential supervision. It should be noted that the securitisation of loans and the use of loans as collateral for the issuance of covered bonds are distinct operations. In contrast to securitisation, covered bonds are debt securities issued by a credit institution directly (or fully guaranteed by a credit institution) and covered by a pool of loans (typically mortgage loans) or public sector debt which do not leave the issuer's balance sheet. Covered bonds represent the payment obligations of the originator, which are not dependent on the performance of the pool of assets itself. In the event of default of the issuing or guarantor credit institution, bond holders have a priority claim on the cover pool in addition to their ordinary claim on the credit institution (dual recourse). Transfer of the credit risk, which is a common objective of securitisation, is therefore not achieved by the issuance of covered bonds, and they are not included in the reporting requirements for securitised loans for the purposes of MFI balance sheet statistics.

4.3.11.2 Valuation principles for securitised and otherwise transferred loans

Loan sales and purchases are transactions, since they involve the exchange of economic value between entities by mutual agreement. However, traditional loan securitisations with derecognition conceal underlying credit developments. If only the removal of loans from the balance sheet of the originating MFIs is recorded on the MFI balance sheet, it will appear that loans have been repaid, whereas in reality the borrowers still owe the same amount of debt and no credit has been withdrawn overall from the economy. In cases where the originating MFI, or the MFI sector as a whole, purchases the securities issued by the FVC acquiring the loans, it will appear (if the loans are mortgages, for example) that there has been a switch from lending to households to credit to other financial intermediaries, which although correct if the MFI balance sheet is considered in isolation does not capture the economic reality of

what has happened. Supplementary information is therefore collected to account for such operations. Section 7.4 details the adjustment applied by the ECB to the aggregated loan series to derive a growth rate adjusted for loan sales and securitisations.

For securitisations and other loan transfers with derecognition, the change in the on-balance-sheet stock should reflect the principal amount outstanding from the debtor (nominal value), less any write-downs/write-offs recorded at the time of sale or purchase. The sale or purchase price of the operation should be reported as the “net flows of loans otherwise transferred” to “other counterparties in the transfer” (Table 5a in Part 5 of Annex I to Regulation ECB/2013/33). As per Section 4.3.9.6 on loans sold at a discount, the MFI selling the loans should record a “write-down at the time of sale” (revaluation adjustment) on the loans being sold equal to the difference between the sale price (transaction price) of the loans and the nominal value recorded on its balance sheet prior to the loan sale. Similarly, the acquiring MFI should record the purchased loans on-balance sheet at the principal amount outstanding from the debtor (nominal value), less any write-downs/write-offs recorded at the time of purchase by the acquiring MFI. Where the on-balance-sheet value does not correspond to the purchase price of the loan, a revaluation adjustment equal to the difference between the purchase price (transaction price) of the loans and the nominal value should be recorded on the acquiring MFI’s balance sheet at the time of transfer. See also Section 5.4 on the recording of revaluation adjustments for write-offs/write-downs, including at the time of sale. The value of loans reported under the reporting requirements on the outstanding amounts of securitised loans (Regulation ECB/2013/33, Parts 3, 4 and 5 of Table 5) should also comply with the valuation rules for on-balance-sheet loans as described in Section 4.3.9, i.e. the principal amount outstanding excluding write-offs and write-downs, and gross of provisions (unless the NCB allows reporting net of provisions).

In the case of “retained” or “internal” securitisations, it is important that the securities are not netted against other holdings of securities. Retained securitisations involve the issuance of debt securities by an FVC not to be sold to investors but to be placed with the originating MFI. The MFI may use them as collateral in repurchase agreements with other financial institutions or in central bank refinancing operations. Securities held under retained securitisations are not considered as “holdings of own securities” and must be reported on a gross basis.

4.3.12 Off-balance-sheet credit lines

Article 22 of Guideline ECB/2014/15 requests quarterly data on MFI credit lines to complement the analysis of credit developments in the euro area and individual euro area Member States. NCBs are required to compile and report aggregated data on MFI credit lines granted to domestic residents and MFI credit lines granted to other euro area non-domestic residents, broken down by institutional sector, in accordance with Part 20 of Annex II to Guideline ECB/2014/15.

Credit lines are undrawn credit facilities extended by the reporting MFI. They are defined in the CRR and are classified as medium risk, medium/low risk or low risk. Guideline ECB/2014/15 requires NCBs to apply this definition on a best efforts basis, while allowing for the reporting of a national definition for credit lines, with the aim of harmonising data to enhance cross-country comparability in the longer term.

Where sectoral breakdowns are not available, NCBs may either request such additional information from reporting agents or estimate the sectoral breakdowns using information available at national level from other sources.

4.4 Deposits

MFI balance sheet reporting identifies transferable deposits, similar to the ESA 2010, and also distinguishes between overnight deposits (only some of which may be transferable) and other categories of deposit, as explained in more detail below. The ESA 2010 distinguishes between transferable deposits (AF.22) and other deposits (AF.29) only. For the purposes of MFI balance sheet statistics, the category “deposits” appears by convention on the liabilities side of the MFI balance sheet only. Deposit-type assets held by MFIs are recorded as loans, or in some circumstances (as explained below) as securities, while loan liabilities are recorded as deposits. Interbank or intergroup placements will therefore be recorded as a deposit by the debtor MFI and as a loan by the creditor MFI. This would also cover liability positions of nostro and vostro accounts between two financial institutions. Credit union shares may be considered as deposits for statistical purposes, as outlined in Regulation ECB/2013/33. The ESA 2010 (5.118 – 5.119) states that all sectors other than deposit-taking corporations may hold deposits as assets, and that all placements between deposit-taking corporations are always recorded as deposits (in line with MFI balance sheet statistics in the case of loan liabilities).

Deposits are amounts owed to creditors by reporting agents which are not negotiable instruments and therefore not marketable. They combine the features of transferability, convertibility and certainty (in terms of their nominal value) as described in Part 1, Section 1 of Annex I to Regulation ECB/2013/33. Instruments may be non-negotiable if their ownership is not readily capable of being transferred such that they cannot be marketed or, although technically negotiable, cannot be traded owing to the absence of an organised market. Non-negotiable instruments issued by reporting agents that subsequently become negotiable and can be traded on secondary markets should be reclassified as debt.

For the purposes of the ECB reporting scheme, deposits are broken down into overnight deposits, deposits with agreed maturity, deposits redeemable at notice and repurchase agreements (also known as repos).

4.4.1 Overnight deposits

Overnight deposits, as defined by Regulation ECB/2013/33, are convertible into currency and/or transferable on demand by cheque, banker's order, debit entry or similar means, without significant delay, restriction or penalty. They include (i) balances (interest-bearing or not) which are convertible on demand or by close of business on the following day without significant penalty or restriction, but which are not transferable, and (ii) balances (interest-bearing or not) representing prepaid amounts in hardware-based or software-based e-money schemes (e.g. prepaid cards). Overdrafts on current accounts are always treated as loans and must not be netted under overnight deposits.

Deposit accounts, such as some online-only accounts, that do not have payment instruments attached (e.g. debit card or direct transfers to third parties) are only accessible via transfers to other accounts and are also regarded as overnight deposits to the extent that they do not carry an agreed maturity or a period of notice, even if the conversion into currency may involve a delay owing to the clearance time of the transfers.

4.4.1.1 Transferable deposits

Transferable deposits are, for the purposes of MFI balance sheet statistics, a sub-category of overnight deposits, namely those which are directly transferable on demand to make payments to other economic agents by commonly used means of payment, such as credit transfer, direct debit, credit or debit card, e-money transactions, cheques, or similar means, without significant delay, restriction or penalty. Deposits that can only be used for cash withdrawal and deposits from which funds can be withdrawn or transferred only through another account of the same owner are not transferable deposits.

Transferable deposits held with central banks include the accounts that each credit institution has with its domestic NCB and which serve payment/settlement functions. TARGET2 accounts fall within this category, including when the end-of-day balance on a credit institution's TARGET2 account serves to fulfil its minimum reserve obligations.⁸⁰ Some central banks also have current accounts for employees. Those are typically used for payment transactions and should therefore be included in the category of transferable deposits; the same may apply to deposits held by the government sector and by entities located in the rest of the world.

⁸⁰ The Trans-European Automated Real-time Gross settlement Express Transfer system (TARGET) consists of various modules in which different types of accounts are kept. Not all of the accounts would qualify as transferable for the purposes of MFI balance sheet statistics; in particular, NCBs should not include any "technical" TARGET accounts and those from the ancillary systems within transferable deposits (for example, NCB-ECB accounts are technical accounts). It is worth noting that although these do not qualify as transferable, they are nonetheless inter-MFI deposits/loans and as such should not be reported under "remaining assets" or "remaining liabilities".

4.4.2 Deposits with agreed maturity

Deposits with agreed maturity are non-transferable deposits which cannot be withdrawn before an agreed fixed term, or that can be withdrawn only subject to a penalty. This item includes, in the maturity band “over two years”, administratively regulated savings deposits where the maturity-related criterion is not relevant, and deposits held for specific purposes, even if they are technically redeemable on demand (e.g. as qualification for a housing loan at a discounted rate in due course), for which the interest rates and/or terms and conditions are specified in national legislation. Deposits with roll-over provisions must be classified according to the earliest maturity. Deposits with agreed maturity which permit early redemption subject to notice, or are redeemable on demand subject to a penalty, are nevertheless classified as deposits with agreed maturity. In the first of these cases, after notification has been given, balances are reclassified as deposits redeemable at notice up to three months or as deposits redeemable at notice over three months, as applicable.

The maturity periods to be reported are “up to and including one year”, “over one year and up to and including two years”, and “over two years”; in each case with reference to the original maturity.

This item also includes counterparty liabilities related to securitisation transactions in which the loans or other assets remain on the MFI’s statistical balance sheet (i.e. they are not derecognised from the balance sheet). In this case a balancing liability to the consideration received for the loan sale is recorded vis-à-vis the transferee, which by convention is assigned to deposits with agreed maturity over two years.

Deposits frozen at a premium, margin deposits and earmarked balances are generally classified as deposits with agreed maturity (see Section 4.4.8).

4.4.3 Deposits redeemable at notice

Deposits redeemable at notice are non-transferable deposits, usually with no agreed maturity, but which may be withdrawn without penalty only after a period of notice. The notice periods to be reported are “up to and including three months” and “over three months” (with the sub-category “of which, over two years’ notice”). They include deposits which, although legally withdrawable on demand, would be subject to penalties and restrictions according to national practice and thus do not qualify as “overnight” deposits; these are classified in the first maturity band. They also include investment accounts which do not have a period of notice or agreed maturity, but which have restrictive drawing provisions (classified in the second band, namely “over three months’ notice” and “of which, over two years’ notice”). In certain cases, deposits redeemable at notice also include deposits placed with a fixed term to maturity/agreed maturity which allow early redemption after prior notification. These are normally classified as deposits with agreed maturity, but once notification has been given they are included under deposits redeemable at notice (and allocated to

the first or second maturity band, depending on the period of notice applicable). Non-transferable sight deposits (sight saving deposits) are included in the “up to three months” maturity band.

Earmarked balances may be classified as deposits redeemable at notice (see Section 4.5.8).

4.4.4 Repos

This item includes amounts recorded as a deposit liability in the form of a repurchase agreement (repo) representing the counterpart of cash received in exchange for securities sold by the reporting MFI, with a commitment to repurchase them at a fixed price on a specified future date. In this case, the MFI will have sold securities for cash, with an obligation to return the cash (reflected here) when the securities are bought back.

Liabilities arising from the following repo-type operations are also recorded under this item:

- cash deposited as collateral against the lending of securities or gold by the MFI;
- cash deposited with an MFI in exchange for securities temporarily transferred to a third party under a sale/buyback agreement.

A loan of securities or gold without cash collateral (whether with no collateral or with collateral other than cash) is not recorded on the balance sheet at all, see Box 1 below for further detail.

Repo liabilities vis-à-vis euro area central counterparties (CCPs) are classified in the other financial intermediaries (except insurance corporations and pension funds) sub-sector (S.125 in ESA 2010).⁸¹ A CCP legally interposes itself between counterparties to contracts traded in financial markets, becoming the buyer to every seller and the seller to every buyer. Since such transactions are often substitutes for bilateral business among MFIs (“tri-party” repos, see Box 1 below), an additional distinction is made within the deposit category “repos” with respect to business with these counterparties. As these positions, which are intermediated by non-MFIs, effectively reflect inter-MFI business, they are excluded from monetary aggregates and counterparts (see also Section 7.1.2).

⁸¹ While this is the typical statistical classification of CCPs, there are some which are credit institutions and are hence in the MFI sub-sector. Reverse repos with these counterparties are therefore inter-MFI loans and are not to be included in the separate reporting of positions with central counterparties in the other financial intermediaries sub-sector. CCPs which are MFI reporting agents should include repos and reverse repos in the statistical reporting of deposits and loans, regardless of the treatment for accounting or other reporting purposes.

Box 1

Repurchase agreements, securities lending and similar operations

The treatment of repurchase operations (repos and reverse repos),⁸² securities lending against cash collateral and similar transactions is also discussed in the sections on loans. In brief, such transactions are treated statistically as loans against collateral and not as transactions in the security or other instrument involved, which remains on the balance sheet of the original holder. Where an MFI is a party to such an operation, it records a deposit liability where it has in effect borrowed cash (the corresponding asset being the cash received), and a loan where it has lent funds against the collateral of the security or other instrument.⁸³ The recording practice is the same where an MFI (usually an NCB in this case) swaps (lends or borrows) gold against cash, usually in the form of foreign currency deposits. Furthermore, if the entity borrowing the security or other instrument sells it, it should record a negative holding on its balance sheet to avoid double-counting, since both the original holder and the purchaser will record the security or other instrument on their balance sheet (see also the treatment of short selling in Section 4.5.1.9).

Where securities lending without cash collateral operations are undertaken (the collateral may be some other instrument, or there may be no collateral), however, nothing should be entered on the balance sheet. As in repo-type operations, securities lent without cash collateral remain on the original owner's balance sheet if there is a binding agreement to reverse the operation. Since no cash has changed hands, no entries are to be made under "deposits" or "loans". As before, if the temporary acquirer later sells the securities outright, the sale should be recorded as a transaction in securities and entered on the balance sheet of the temporary acquirer as a negative position in the instrument.

Repurchase transactions

Repurchase transactions are where the parties to a repo or similar transaction agree to exchange bonds or other financial instruments for an equivalent amount of cash, with a binding agreement to reverse the transaction. Rather confusingly, such a transaction is sometimes called a sale of bonds against cash collateral, whereas the statistical treatment (which reflects the economic reality) is that of a loan of cash against collateral in the form of bonds. As noted above, the bonds remain on the balance sheet of the original holder and are treated as not having changed economic ownership, since the original holder retains all the benefits and risks of owning them (including entitlement to the interest accruing on them); see also the ESA 2010 (5.129). When the repo matures, the borrower of the cash will return more than he originally received, the difference reflecting interest for the use of the cash during the life of the contract. This interest should be accrued under "remaining liabilities" on the balance sheet of the cash borrower and under "remaining assets" on the balance sheet of the cash lender.

⁸² A repurchase agreement (repo) is the sale of securities combined with a binding agreement to buy them back later. A reverse repo is the purchase of securities combined with a binding agreement to sell them back later. A repo for one party to the transaction is thus a reverse repo for the other party.

⁸³ See also the ESA 2010 (5.128 and Table 5.2) for a summary of securities lending (with and without cash collateral) and repurchase agreements.

Tri-party repos

A tri-party repo allows MFIs to access the secured interbank lending market. The lending operation is mediated by a third party, typically a custodian bank or central counterparty (CCP), and has the advantage of reducing counterparty risk for the lender. Tri-party repos are structured as follows: (i) the borrower enters into a repurchase agreement with the third party (classified as a deposit), borrowing the required amount and pledging collateral to the third party as required; (ii) the lender enters into a reverse repurchase agreement with the third party (as discussed in Section 4.3.4, reverse repurchase agreements are classified as loans in MFI balance sheet statistics); (iii) the third party administers the transaction and the collateral, acting as the direct counterparty to the seller and the buyer, thus assuming the risk of default of the borrower. Owing to the impact of such operations on monetary aggregates, it is important that both legs of a tri-party repo are recorded vis-à-vis the same sector (CCPs are typically a sub-sector of OFIs in statistical reporting, see Section 4.4.4 above) and that both legs are always classified as loans and deposits. The impact of operations with central counterparties on monetary aggregates and their counterparts is discussed in Section 7.1.2.

4.4.5 Intragroup positions with deposit-taking corporations

Intragroup positions reported under “deposits” comprise deposits between euro area deposit-taking corporations (except the central bank) that belong to the same group, consisting of a parent and all its directly or indirectly controlled euro area resident group members. This allows for the identification of inter-linkages between credit institutions belonging to the same group within the euro area. Positions should be recorded according to the residency of the group member(s). The group member(s) should also appear on the domestic or relevant “other euro area Member State” MFI list. Deposit and loan positions recorded against domestic deposit-taking corporations should be equal. See also Section 4.3.9.5 on distinguishing between loans/deposits and equity financing.

4.4.6 Syndicated loan liabilities

As in Section 4.4 above, loan liabilities of MFIs are recorded as deposits by the receiving MFI. This includes syndicated loans received by reporting agents, which are identified separately under “deposits”. Syndicated loans are single loan agreements in which several institutions participate as lenders; the borrower (here the reporting MFI) must be made aware of this in the loan contract.

Syndicated loans are usually arranged and coordinated by one institution (the lead manager). As each participating MFI reports the amount it has lent as a loan to the borrower, not as a loan to the lead manager, positions reported here should only reflect syndicated loans in which the reporting MFI is the borrower and not the lead manager.

4.4.7 Notional cash pooling

Notional cash pooling is covered in detail in Section 4.3.7, under loans, with analogous treatment applying for deposit positions. In line with Article 8(2) and (3) of Regulation ECB/2013/33, notional cash pool positions should be reported on a gross basis and not netted against any other assets or liabilities. Notional cash pooling deposit positions should be included under “overnight deposits”. To separate out the impact of such positions from that of other loans and deposits on the balance sheets of MFIs, statistical information on notional cash pools on the balance sheets of reporting agents is provided by NCBs where the data are available in accordance with Table 5 in Part 1 of Annex II to Guideline ECB/2014/15 (as amended by Guideline ECB/2018/17).⁸⁴

4.4.8 Specific cases and instruments

Regulation ECB/2013/33 (Part 2 of Annex II) indicates how various kinds of instrument are to be reported (without being identified separately) as part of deposits. As in the Regulation, not all specific instruments can be covered by this Manual; the treatment of the selected products defined in this section should therefore be used as a reference for other products with similar characteristics.

4.4.8.1 Non-negotiable debt instruments

Non-negotiable debt instruments issued by reporting agents are generally classified as deposit liabilities. These are instruments where the transfer of legal ownership is subject to restrictions which imply that they cannot be marketed or, although technically negotiable, cannot be traded owing to the absence of an organised market. Non-negotiable instruments issued by MFIs that subsequently become negotiable and can be traded on secondary markets should be reclassified as debt securities.

4.4.8.2 Deposits which can be frozen at a premium

Some overnight or redeemable at notice-type deposit products may allow the customer the option to freeze a specified amount for a period of agreed maturity, in exchange for a higher interest rate than that of the underlying contract.

For the purposes of MFI balance sheet statistics, the frozen part of the deposit should be recorded together with the original product where the only consequence of early redemption or cancellation is the loss of the bonus on the frozen part. Where

⁸⁴ In the euro area, notional cash pooling services are highly concentrated in the Netherlands, where they have been subject to specific data collection since December 2014. Based on a survey carried out by the ECB in cooperation with NCBs, the scale of notional cash pooling activities in other euro area countries is expected to be relatively small.

further penalties apply in addition to the loss of the bonus, the frozen part of the deposit should be classified to the relevant agreed maturity category.

Where penalties and charges apply to early withdrawal from such accounts, this acts as a disincentive to withdraw funds before the agreed maturity and thus renders such deposits less liquid. As a consequence, the loss of the interest bonus alone is not a sufficient constraint to prevent early withdrawal of the frozen part of the deposit and should therefore not be a determinant in classification as deposits with agreed maturity.

4.4.8.3 Deposits with embedded derivatives

Deposits with embedded derivatives (hybrid deposits) are classified according to the ESA 2010 (5.220), which requires the underlying instrument and associated derivative to be reported separately where possible. Where separation is not possible, the instrument should be classified according to the main characteristics of the entire contract.

The treatment is similar under IFRS 9 (4.3). Where the host contract is not considered a financial asset (e.g. it is a financial liability), it may be recorded either entirely as a deposit or separated into the host contract (i.e. the deposit) and the embedded financial derivative. Where the host contract is an asset under IFRS 9, the embedded derivative is not separated; instead the hybrid instrument is classified as a whole according to the main characteristics of the contract. It is recommended, however, that the ESA 2010 treatment is adopted for MFI balance sheet statistics.⁸⁵ The classification used for accounting purposes in the case of deposits also applies for statistical reporting (i.e. may be recorded either entirely as a deposit or separated out).

4.4.8.4 Margin deposits

Repayable margin deposits (margins) made under derivative contracts should be classified as deposits with agreed maturity by reporting MFIs where they represent cash collateral deposited with them and where they remain in the depositor's ownership and are repayable to the depositor when the contract is closed out. The MFI receiving the amount should be free to use the funds for on-lending. Where part of the margin must be retained, e.g. for the clearing house, only the part at the disposal of the MFI should in principle be classified as a deposit liability. The maturity classification is determined by the period of the derivative contract, as the deposit is in effect blocked until the derivative matures.

All repayable margin deposits are therefore to be treated as loans/deposits, while non-repayable margin deposits are to be treated as transactions in the financial derivative since they reduce the liability created through the financial derivative.

⁸⁵ This represents a divergence from IFRS guidance on the assets side, but uniform treatment for both assets and liabilities is important from a statistical reporting perspective.

Where repayable and non-repayable margin deposits are recorded in the same account, it can be very difficult to distinguish between the two. In such cases Regulation ECB/2013/33 allows them to be recorded under “deposits” or “remaining liabilities”. Where margin deposits are placed by the MFI, the treatment is symmetric to the above but recorded under “loans”.

4.4.8.5 Earmarked balances

Earmarked balances relating to, for example, leasing or other loan contracts (e.g. deposits “blocked” to serve as collateral for specific loans or guarantees) are classified as deposits with agreed maturity or redeemable at notice depending on the provisions of the underlying contract or on the maturity/period of notice reflecting the underlying leasing/loan contract. Deposits which are only partly blocked should be treated accordingly with respect to the part serving as collateral, while the other part should continue to be recorded within overnight deposits.

Earmarked shares relating to loans made by the MFI should also be classified as deposit liabilities, and their breakdown by agreed maturity or period of notice should follow the maturity provisions of the loan contract.

4.4.8.6 Subordinated debt and shares issued by MFIs

Subordinated debt issued by an MFI in the form of deposits or non-negotiable loans is recorded under “deposits”, in the appropriate maturity category (see also Section 4.3.9.4 on subordinated debt in the form of loans).

Some deposit-type instruments issued by MFIs are referred to as shares. They are classified as deposits instead of as capital and reserves if: (i) the relationship between the issuing MFI and the holder is essentially that of debtor and creditor (regardless of any property rights in these shares), and (ii) the shares can be converted into currency or redeemed without significant restrictions or penalties, though perhaps with a notice period (see also Regulation ECB/2013/33, Part 2 of Annex II). The notice periods for the conversion of such shares into currency are used to classify these shares according to the appropriate maturity breakdown. The shares must also comply with the following conditions:

- (i) regulatory provisions provide the MFI with no unconditional right to refuse to redeem them;
- (ii) the shares will normally be redeemed at nominal value;
- (iii) holders cannot lose more than the nominal value of the shares if the event of the MFI’s insolvency.

The treatment suggested by the Regulation for shares that are deposit-type instruments is consistent with international accounting standards and supervisory standards regarding cooperative shares issued by MFIs.⁸⁶ Where “significant restrictions or penalties” are associated with the redemption of the shares, however, this would lead to them being classified under capital and reserves in statistical reporting. This criterion is not included in accounting and supervisory standards and could possibly result in divergences between them and the statistical treatment.

Reporting MFIs which hold such shares as assets should classify them as loans, in line with the convention that deposits do not appear on the assets side of an MFI’s balance sheet.

4.4.8.7 Deposits received on a trust basis (fiduciary deposits)

An MFI which receives funds or deposits as a trustee/fiduciary from a customer (the trustor/beneficiary) for placement on deposit with another MFI or some other institution (the recipient)⁸⁷ should not report them as a deposit on its own balance sheet. This conforms to the ESA 2010 requirement to recognise the principal party to a transaction.⁸⁸ The funds should be recorded as a deposit on the recipient’s balance sheet only. This rule avoids double-counting. The trustee is responsible for repaying the funds to the beneficiary, with the beneficiary retaining the risks and rewards of ownership of the funds. The trustee’s involvement is confined to the administration of the account, with the funds protected in the event that the trustee MFI fails.

Where an MFI is the recipient of fiduciary deposits from a trustee, it should make every effort to classify such accounts according to the beneficial owner based on information that is usually available to MFIs. If the recipient bank has insufficient information about the beneficiary to provide an accurate sector classification, however, the deposit should be classified according to the residency and sector of the trustee.

The above treatment applies analogously for securities received on a trust basis and escrow deposit accounts where an MFI receives funds as a trustee and disburses them depending on the fulfilment of the contractually agreed conditions. See also Section 4.3.9.13 for the treatment of funds granted on a trust basis.

⁸⁶ In particular, IFRIC Interpretation 2” on “Members’ shares in cooperative entities and similar instruments” defines the criteria under which the cooperative shares should be classified as equity. These criteria are adopted in the “*Guidelines for implementation of the framework for consolidated financial reporting*” (FINREP) of 15 December 2009.

⁸⁷ The trustee may also be the recipient MFI.

⁸⁸ The ESA 2010 (1.78) states that when a unit carries out a transaction on behalf of another unit (the principal) and is funded by that unit, the transaction is recorded exclusively in the accounts of the principal. As a rule, one should not go beyond this principle by trying, for instance, to allocate taxes or subsidies to ultimate payers or ultimate beneficiaries under the adoption of assumptions.

4.4.8.8 Travellers' cheques

Travellers' cheques issued by MFIs have similar properties to currency in circulation. The Regulation does not state how they should be classified within the reporting scheme. Nevertheless, the ECB would expect travellers' cheques to be treated in a similar way to prepaid money balances stored on technical devices (electronic money); they should therefore be classified under "overnight deposits". Paper-based travellers' cheques are not classified as electronic money in the MFI balance sheet reporting scheme, however, as they are excluded from the scope of Directive (EU) 2015/2366.

4.4.8.9 Gold swaps and gold loans/deposits

Gold swaps represent the liability counterpart of cash (usually foreign currency deposits) received by MFIs (in most cases NCBs) in exchange for gold which they have temporarily relinquished, but retain on their balance sheet, under a binding agreement to reverse the transaction at an agreed price and on a specific future date. The treatment is similar to that for repos and also applies to gold loans against cash collateral. The economic risks and benefits of ownership of the gold (such as the right to holding gains and losses) remain with the original owner (here the reporting MFI, usually an NCB). The institution lending the gold records the cash received as an asset, with a matching liability in deposits; the institution borrowing the gold records a decline in cash assets and an offsetting increase in loans to the lender.

The statistical treatment of gold swaps (where cash is received in exchange for gold which has been temporarily relinquished) thus differs from a case in which gold temporarily changes hands without collateral, or against a pledge of securities or other non-cash collateral. In these cases, no cash is recorded on the assets side and no corresponding deposit entry is made under "deposit liabilities". Where no cash is transferred or pledged, the gold swap or loan is not recorded on the balance sheet at all, i.e. it should be treated as an off-balance-sheet operation.

Where the temporary acquirer of gold (under either a gold swap or a gold loan) later sells the gold outright, the sale should be recorded as a transaction in gold and entered on the balance sheet of the temporary acquirer (the short seller) as a negative position in gold. This is to prevent double-counting, since the gold will be recorded by both the original owner (on whose balance sheet it has remained) and the new buyer.

4.4.9 Valuation principles of deposits

Article 8 of Regulation ECB/2013/33 states that "Deposit liabilities and loans shall be reported at their principal amount outstanding at the end of the month", and "Deposit liabilities and loans shall not be netted against any other assets or liabilities".

Further valuation rules are as follows:

- Deposit liabilities are to be reported at the nominal amount outstanding and on a gross basis, where nominal amount means the amount of principal that a debtor (in this case the reporting MFI) is contractually obliged to repay to a creditor, in line with the ESA 2010 (7.65). On a gross basis means that no claims against the deposit holder are deducted from the deposit.
- Interest payable on deposits should be reported on the balance sheet as it accrues rather than when it is actually paid, and should be recorded under the item “accrued interest on deposits”, a sub-item of “remaining liabilities”, rather than being added to the deposit to which it relates. The ESA 2010 also requires interest to be recorded as it accrues, not when it is paid (4.50, 5.43), and requires the accruing interest to be recorded in the appropriate instrument category (5.242) rather than under “remaining liabilities”. The treatment in MFI balance sheet statistics is preferred for monetary policy analysis, since it records the amount actually in the account of the deposit holder and not an imputed amount (the accruing interest) not yet credited to the account.
- With negative interest rates now a feature of monetary policy, MFI balance sheet statistics require negative interest accruals on deposits to be recorded on a gross basis (i.e. without set-off between the assets and liabilities side. Negative accrued interest on deposits should be imputed to the liabilities side of the balance sheet (where the underlying business is recorded) and recorded with a negative sign under “remaining liabilities” until payment falls due. This treatment is analogous to unpaid loan interest past due (Section 4.3.10).
- The transaction value of deposits excludes fees and any other charges.
- When submitting MFI balance sheet data to the ECB, NCBs ensure that liability (and asset) positions denominated in foreign currencies are converted into euro using market exchange rates prevailing on the balance sheet date (see also Section 2.5.4 and the ESA 2010 (7.66)). MFIs must distinguish between deposits denominated in euro and those denominated in foreign currency in monthly reporting. MFIs report the amounts of deposits denominated in each of the main foreign currencies on a quarterly basis, and this information is used by the ECB to remove (as an approximation) the effect of exchange rate changes from the “flows” data (see also Section 7.2.2).

These requirements ensure that MFI balance sheet reporting of deposits for statistical purposes are unaffected by the concept of “fair valuation” in international accounting standards.

4.5 Debt securities held and debt securities issued

Debt securities are reported in MFI balance sheet statistics with an original maturity of up to and including one year, over one year and up to and including two years, and over two years. These items on the MFI balance sheet correspond to debt

securities (AF.3) in the ESA 2010. The ESA 2010 has two original maturity classes: one year or less (AF.31) and more than one year (AF.32).

Where the reporting MFI issues securities with an original maturity of up to and including two years, the Regulation requires any amount issued within this maturity band with a less than 100% nominal capital guarantee to be identified separately. This is because debt securities issued by an MFI with an original maturity of up to two years are monetary instruments included in M3, and items carrying some capital uncertainty at redemption may be viewed differently from other instruments in this category (i.e. the contractual redemption value in the issuing currency may be lower than the amount originally invested owing to the combination of debt and derivative components). As per Regulation ECB/2013/33, and in line with the ESA 2010 (5.090), debt securities are securities with the following characteristics:

- (i) are negotiable and can be traded or offset on secondary markets, or can be sold on the market;
- (ii) do not grant the holder any ownership rights over the issuer;
- (iii) give the holder the unconditional right to a fixed or contractually determined income in the form of coupon payments and/or a stated fixed sum on a specific date or dates, or starting from a date specified at the time of issue;
- (iv) state an issue date, issue price, redemption date (or maturity date) and redemption price.

Debt security categories exclude financial derivatives, *Schuldscheine* and similar instruments (see also Sections 4.3.9 and 4.4.8).

For the purposes of the ECB reporting scheme on MFI balance sheet statistics, debt securities are broken down into holdings of debt securities vis-à-vis all institutional sectors, including quarterly requirements vis-à-vis individual countries. Debt security issuance is broken down vis-à-vis individual currencies and aggregated at domestic, euro area and rest of world level.

4.5.1 Specific cases and instruments

Regulation ECB/2013/33 (Part 2 of Annex II) indicates how various debt security-type instruments are to be reported. Not all specific instruments can be covered by this Manual; the treatment of the selected products defined in this section should therefore be used as a reference for other products with similar characteristics

4.5.1.1 Negotiable deposits or loans

The category “debt securities” includes deposits or loans (traded loans) that have become negotiable, i.e. that have been restructured into a large number of identical

documents that can be traded on secondary markets. Evidence of secondary market trading must exist, including in the form of market makers, and frequent quotation of the financial asset such as provided by bid-offer spreads (see also Section 4.3.9 on the classification of borderline debt instruments). Non-negotiable instruments issued by MFIs that subsequently become negotiable and can be traded on secondary markets should be reclassified as debt securities.

4.5.1.2 Negotiable debt securities not actively traded

Sections 4.3.9.2 and 4.4.8.1 detail non-negotiable instruments that are not actively traded and are therefore classified as loans or deposits. Debt instruments that are not actively traded but are negotiable are classified as debt securities. The distinction lies in the fact that the issuer of a negotiable instrument has no obligation to redeem the security from the holder before maturity, while the issuer of a non-negotiable instrument has a commitment to redeem the security, by anticipation, at the request of the holder.

4.5.1.3 Subordinated debt

Subordinated debt issued by MFIs in security form is classified as debt securities issued (just as subordinated debt issued by MFIs in the form of deposits is classified as deposits). Where all subordinated debt issued by an MFI is identified as a single amount for statistical purposes, Regulation ECB/2013/33 classifies the amount as debt securities issued on the grounds that most subordinated debt is in security form. Subordinated debt should not be included in capital and reserves (see also Section 4.4.8.6 on subordinated debt in the form of deposits). A similar treatment applies for holdings of subordinated debt in security form.

4.5.1.4 Securities with embedded derivatives

Negotiable instruments combining debt and derivative features, including negotiable debt instruments containing embedded derivatives, and negotiable instruments whose redemption value and/or coupon is linked to the performance of an underlying reference asset, asset price or other reference indicator over the life of the instrument are classified under “debt securities held”, if assets, or under “debt securities issued”, if liabilities.

Debt securities with embedded derivatives are classified according to the ESA 2010 (5.220), which requires the underlying instrument and associated derivative to be reported separately where possible, similar to deposits with embedded derivatives (hybrid deposits) in Section 4.4.8.3. Where separation is not possible, the instrument should be classified and valued according to the main characteristics of the entire contract. The instrument is valued according to its primary characteristics, even

though the value of that security or loan may well differ from the values of comparable securities and loans because of the embedded derivative.⁸⁹ Where valuation changes arise from one reporting period to the next, they are reported as revaluation adjustments.

While IFRS 9 (4.3) requires a host contract, which is an asset in the scope of IFRS, to not be separated but classified according to the main characteristics of the entire contract, the ESA 2010 guidance is the approach followed for MFI balance sheet reporting of debt securities held (assets) owing to the need for equal treatment on both sides of the balance sheet.

This type of instrument may also be referred to as a hybrid debt security and includes turbos and equity warrant bonds. It also includes negotiable instruments whose redemption value and/or coupon is linked to the development of an underlying reference asset, asset price or other reference indicator over the maturity of the instrument. Where the original maturity of the instrument is up to two years and the contractual redemption value in the issuing currency at maturity is lower than the amount originally invested, it is reported under the sub-item “debt securities up to two years and nominal capital guarantee below 100%”.

4.5.1.5 Depository receipts

Depository receipts, also called global depository receipts, are negotiable instruments issued by a bank to represent securities (bonds or equities) which are listed on a foreign stock exchange (see also the ESA 2010 (5.143)). The depository receipt is traded on a local stock exchange and thus enables the holder to (indirectly) trade the underlying security on his local stock exchange even though this security remains listed on its (foreign) home stock exchange.

The mechanism regulating the issuance and life of a depository receipt is as follows:

- (i) the (domestic) bank issuing the depository receipt purchases securities of the (foreign) company on the foreign stock exchange;
- (ii) the securities are grouped into packets and each packet is issued as a depository receipt on the local stock exchange;
- (iii) the depository receipt is typically denominated in the local currency.

For the purposes of MFI balance sheet statistics, the holder of a depository receipt records a holding of the underlying security (asset) and does not record a claim on the issuer of the depository receipt, which merely administers the arrangement. The holding of the underlying security is recorded vis-à-vis the original issuer. Analogously, the bank that issues the depository receipt excludes the holdings of the

⁸⁹ See the BPM6 (5.83(d)) on the types of financial arrangements that are not considered financial derivatives.

underlying securities and the depositary receipts which it has issued from its statistical balance sheet.

4.5.1.6 Non-participating preference shares

Non-participating preference shares are classified as debt securities in line with the ESA 2010 (5.97). They pay a fixed dividend to holders (treated as interest income), but do not allow the holder to participate in the issuer's residual assets on liquidation. All other types of preference shares are classified as equity.

4.5.1.7 Holdings of own debt securities

Holdings of own securities by MFIs comprise securities which were purchased by another investor at issue and then repurchased by the original issuer, as well as securities effectively issued and retained by the holder at issuance.⁹⁰ Types of own holdings reported by the MFIs include own debt securities held, own equity held and own MMF shares/units held. They are reported as off-balance-sheet positions, i.e. debt securities both held and issued are reported net of such own holdings. This treatment is in line with the ESA 2010 (5.30), which requires such operations to be recorded as a "redemption of liabilities rather than an acquisition of consolidating assets". This is also consistent with the ESA 2010 (5.151) treatment for share buybacks or stock repurchases, whereby cash is exchanged for a reduction in the number of outstanding shares.

Holdings of debt securities resulting from "retained" or "internal" securitisations (i.e. where the debt securities issued by an FVC are placed with the originating MFI) are not to be treated as holdings of own securities. They are to be reported on the MFI balance sheet as holdings of FVC securities.

4.5.1.8 Debt securities issued or held on a trust basis

Securities issued or held by a reporting MFI on a trust basis are treated analogously to deposits received and loans issued on a trust basis, as detailed in Sections 4.3.9.13 and 4.4.8.7.

Where securities are issued by a reporting MFI on behalf of a third party, the securities should not appear on the reporting MFI's balance sheet. They are reported as securities issued on the balance sheet of the third party only. The holders of such securities classify their holdings vis-à-vis the original issuer (i.e. the third party in this case). This may happen where a parent MFI issues securities through a branch. Only where the branch itself is the legal issuer may such securities be reported on its balance sheet.

⁹⁰ See Table 2 in Part 4 of Annex II to Guideline ECB/2018/17, amending Guideline ECB/2014/15.

4.5.1.9 Securities lending, short selling and reverse repos

Securities temporarily acquired or sold under a repo or similar agreement, or borrowed or lent under a securities lending operation, remain on the original owner's balance sheet and are not to be recorded on the balance sheet of the temporary acquirer. An MFI which sells securities acquired under a repo or borrowed must record a negative holding under debt securities held.

As per the ESA 2010 (5.126), legal title passes on both sides of the transaction so that borrowed securities and collateral can be sold or "on-lent". A trader in securities who does not own a particular security but expects its price to fall may nevertheless sell it in the expectation of buying it back more cheaply later. This is called going short. The short seller must deliver the security to the buyer, and to do so he must borrow the security, probably through a reverse repo. Since the security will remain on the balance sheet of the original owner and appear on the balance sheet of the new owner, the short seller must record a negative holding to avoid double-counting. A similar treatment applies where the security has not first been borrowed (naked short selling).

4.5.1.10 NCBs' external reserves

NCBs' external reserves in the form of debt securities are classified as debt securities for the purposes of MFI balance sheet statistics (see also Section 4.11 below for further details on reserve assets of the Eurosystem).

4.5.2 Valuation principles of debt securities

Article 8 of Regulation ECB/2013/33 states that the accounting rules followed by MFIs shall be those laid down in the national transposition of Council Directive 86/635/EEC of 8 December 1986 on the annual accounts and consolidated accounts of banks and other financial institutions, as well as in any other international standards applicable, unless otherwise provided for in Regulation ECB/2013/33. It also requires all financial assets and liabilities to be reported on a gross basis for statistical purposes, without prejudice to accounting practices and netting arrangements prevailing in Member States. Guideline ECB/2014/15 requires the application of a market valuation for securities held and issued, in line with the requirements of the ESA 2010.⁹¹ While the Guideline acknowledges the provisions of Article 8 of Regulation ECB/2013/33, it states that the application of non-standardised valuation rules is therefore acceptable as long as the book value does not diverge significantly from the market value. The ESA 2010 (7.33) requirement is for assets and liabilities to be valued at market prices on the date to which the balance sheet relates.

⁹¹ See Article 3(6) and Part 11, Section 2(3) of Annex II to Guideline ECB/2014/15.

Further valuation rules are as follows:

- As per Guideline ECB/2014/15 above, the ECB's preference is that in MFI balance sheet statistics reporting MFIs should present asset and liability positions at current market value or a close equivalent to market value (fair value). It is accepted that in practice MFIs may continue to use local accounting rules requiring valuation other than current market value, such as acquisition value or the lower of market price and acquisition value (as long as the book value does not diverge significantly from the market value).
- While securities on the liabilities side of the statistical balance sheet are not necessarily always reported at market value, on the assets side at least some or all holdings are valued at current market prices. As mentioned above, local accounting valuations may also be used provided they are not substantially different from market valuation. The use of different methods inevitably affects balance sheet outstanding amounts and transactions (see also Sections 5.2 and 5.3). Similarly, the ESA 2010 requires both short-term debt securities issued at par and short-term debt securities issued at a discount to be valued at nominal value if current market prices are not available (7.68). The ESA 2010 states that such treatment should be confined to short-term debt securities, whereas longer-term debt securities are always to be valued at current market price, whether they are coupon bonds or deep-discounted/zero-coupon paper (7.69). In principle, consistency in the valuation of issues and holdings of securities issued by MFIs is important in MFI balance sheet statistics because they may be monetary instruments and because holdings of the money-holding sector are calculated as a residual.
- Part 4, Section 3 of Annex II to Guideline ECB/2014/15 requires accrued interest on debt securities held and issued to be identified within "remaining assets" and "remaining liabilities" respectively or within the corresponding instrument category. NCBs should report these accruals in accordance with national practices. Interest receivable should be recorded on the balance sheet as it accrues rather than when it is actually received and is recorded as a transaction. The ESA 2010 also requires interest to be recorded as it accrues and not when it is paid (4.50, 5.43), but requires the accruing interest to be recorded in the appropriate instrument category (5.242). In addition, where securities are issued at a premium or discount the difference between the issue price and its face or redemption value when it matures measures interest that the issuer is obliged to pay over the life of the debt security (6.53).
- Debt securities denominated in foreign currency should be converted into national currency at the mid-market closing exchange rate on the balance sheet date, in line with the ESA 2010 (6.64) (see also Section 2.5.4).
- Fluctuations in the valuation of assets and liabilities that arise because of changes in the price at which assets and liabilities are recorded or traded give rise to revaluation adjustments. These include the changes that occur over time in the value of end-of-period stocks because of changes in the reference value at which assets and liabilities are recorded, i.e. holding gains/losses. Part 2,

Section 2 of Annex IV to Guideline ECB/2014/15 states that the nature and extent of revaluation adjustments depend on the valuation method used. Although market valuation is recommended on both sides of the balance sheet, in practice a variety of different valuation methods may be employed to avoid the need for reporting agents to provide data on different bases. It is important, however, that revaluation adjustments properly complement whichever accounting rules are applied, so that changes in stocks corrected for revaluation adjustments result in accurate transactions data, which are the most important data for analysis. The adjustment of the price revaluation of assets and liabilities and how transactions in debt securities are derived based on varying valuation practices are discussed in Chapter 5.

- The ECB uses quarterly data on the amount of debt securities issued denominated in each of the main foreign currencies to remove (as an approximation) the effect of exchange rate changes from the “flows” data (see also Section 7.2.2).

4.6 Equity (assets)

Regulation ECB/2013/33 states that equity represents property rights on corporations or quasi-corporations. It also has the following characteristics:⁹²

- (i) provides the holder with a claim on the residual value or net worth of the issuing entity after all claims of all other creditors have been met, i.e. in the case of default all third-party liabilities are repaid first;
- (ii) there is no obligation to pay the holder a fixed or predetermined income or dividend;
- (iii) there is not usually a stated maturity date, but there is a specific issue date with a stated issue price;
- (iv) they are negotiable; in the case of listed and unlisted shares only.

Equity as defined in Regulation ECB/2013/33 includes unlisted shares, listed shares and other equity. These items correspond to the ESA 2010 item “equity” (AF.51), which is further broken down into “listed shares” (AF.511), “unlisted shares” (AF.512) and “other equity” (AF.519).

Guideline ECB/2014/15 requires the breakdown of equity to be reported on a quarterly basis. The Guideline defers to the ESA 2010 definitions of equity. As such, listed shares are equity securities listed on an exchange, where such an exchange may be a recognised stock exchange or any other form of secondary market. As per the ESA 2010 (5.146), the existence of quoted prices on an exchange means that current market prices are usually available for listed shares. Unlisted or unquoted

⁹² See Regulation ECB/2013/33 (Point 4 in the table in Part 2 of Annex II), the ESA 2010 (4.53 and 5.154) and the IMF Handbook on Securities Statistics (2.26).

shares are equity securities not listed on an exchange. Other equity is defined as all other forms of equity held in a corporation which are not shares and not reported as listed or unlisted shares, as per the ESA 2010 (5.153-5.154).

For the purposes of the ECB reporting scheme for MFI balance sheet statistics, holdings of equities are further broken down by the institutional sector of the counterparty, over a monthly and quarterly basis, and include quarterly requirements vis-à-vis individual countries.

Issues of equity by a reporting MFI are identified separately as a sub-item of the liability category “capital and reserves”, along with undistributed profits and other elements of shareholders’ funds (see Section 4.8).

4.6.1 Specific cases and instruments

4.6.1.1 Debt securities convertible to equity

Convertible debt securities such as contingent convertible (coco) bonds are recorded as debt securities as long as the conversion to equity has not taken place. The conversion from debt securities to equity is a transaction owing to the mutual agreement of both parties implicit in the characteristics of the convertible security and should not be treated as a reclassification between debt securities and equity. If there is a difference between the valuation of the debt securities (prior to conversion) and equity (at conversion), a revaluation adjustment should be made to debt securities.

4.6.1.2 Capital endowments versus intragroup loans

For branches and subsidiaries, financing via inter-company or interbank funding can be classified as either capital endowments (equity) or as inter-company lending to a branch or subsidiary. Such positions should be classified according to the criterion of loan and equity instruments, as detailed in Section 4.3.9.5 on the recording of intragroup loans versus capital endowments. Section 4.3.9.5 also addresses a borderline case in which a perpetual loan with no obligation to make payments, no stated maturity and where all third-party liabilities are repaid first is classified as equity following the characteristics of equity as outlined above (beginning of Section 4.6).

Where the reporting MFI is the provider of intragroup funding, its corresponding equity holdings should be reported at market value in line with the valuation principles outlined in Section 4.6.2 below. Where valuation effects arise from changes in the reported value of equities, they are recorded as revaluation adjustments (see Chapter 5). Should losses occur in the issuing entity, the following treatment applies.

- Where the reporting MFI holds equity in a subsidiary, the reporting MFI (head office) is not liable for any losses in the subsidiary as there is a lower bound of zero on the value of the shares it owns. Equity held in subsidiaries should be allocated according to the characteristics of listed shares, unlisted shares and other equity as outlined in Section 4.6 above.
- Where the reporting MFI holds equity in a branch, the investment by the reporting MFI (head office) can assume a negative position should losses in the branch occur. This should be reported as a negative position under “equity held” by the reporting MFI (head office). Should the loss-making branch cease to exist as a result (and be non-resident), the losses are assumed by the reporting MFI (head office) and reported under “capital and reserves” rather than “equity held”. Equity in branches should be allocated to other equity.

Where the reporting MFI (branch or subsidiary) is the recipient of such funding, it is reported as “equity capital raised”, a sub-item of “capital and reserves”. As outlined in Section 4.8 on the recording of capital and reserves, equity capital raised is recorded at its original value on the balance sheet. It should reflect the amount raised, including any share premium or discount. Revaluation adjustments should therefore not arise.

4.6.1.3 Preference shares

Holdings of participating preference shares are classified as equity securities regardless of income considerations, on the basis that they provide the holder with a claim on a share in the residual value of the corporation on dissolution. Similarly, redeemable or retractable preference shares, which can be redeemed at the request of either the issuing entity or the shareholder (and have strict conditions attached on issue), are classified as equity securities. Where such shares are retained following redemption rather than being cancelled, they are classified as unlisted equity securities. Such shares continue to entitle the holder to a share in the residual value of the corporation on liquidation, although they carry no voting rights and no dividends are payable.

Convertible preferred shares, cumulative/non-cumulative preferred shares, perpetual preferred shares, floating preferred shares, etc. are recorded in a similar way once they provide the holder with a claim on the residual value or net worth of the issuing entity.⁹³ Structured preference shares, which are based on an underlying portfolio of financial instruments, including derivatives, are recorded under “equity” or “financial derivatives” depending on the main characteristics of the contract, where separation is not possible (treated analogously to hybrid debt securities as discussed in Section 4.5.1.4).

⁹³ Further examples of equity securities are discussed in Chapter 3 of the IMF Handbook on Securities Statistics.

4.6.1.4 Holdings of own equity

An MFI's holdings of its own equity comprise securities which were purchased by another investor at issue and then repurchased by the issuing MFI, as well as securities effectively issued and retained by the holder at issuance.⁹⁴ Holdings of own equity held are not to be included under "equity" on the MFI balance sheet and should be netted from "capital and reserves" on the liabilities side of the balance sheet. The volume of own equity held which has been excluded from the balance sheet may be collected, in accordance with Guideline ECB/2014/15, as amended by ECB/2018/17. The purchase of own equity securities from third parties is reflected by a reduction in "capital and reserves".⁹⁵ This is in line with the ESA 2010 (5.30), which requires such operations to be recorded as a "redemption of liabilities rather than an acquisition of consolidating assets".

Holdings of own equity do not include share buybacks or stock repurchases, where the MFI purchase of the equity results in the shares being extinguished. Share buybacks are recorded as cash exchanged for a reduction in the number of outstanding shares (ESA 2010, 5.151). These operations would nevertheless have a similar impact on 'capital and reserves' as in the case above.

4.6.2 Valuation principles of equity

Article 8 of Regulation ECB/2013/33 states that the accounting rules followed by MFIs shall be those laid down in the national transposition of Council Directive 86/635/EEC of 8 December 1986 on the annual accounts and consolidated accounts of banks and other financial institutions, as well as in any other international standards applicable, unless otherwise provided for in Regulation ECB/2013/33. It also requires all financial assets and liabilities to be reported on a gross basis for statistical purposes, without prejudice to accounting practices and netting arrangements prevailing in Member States. Guideline ECB/2014/15 requires the application of a market valuation for holdings of equity, in line with the requirements of the ESA 2010.⁹⁶ While the Guideline acknowledges the provisions of Article 8 of Regulation ECB/2013/33, it states that the application of non-standardised valuation rules for securities and other assets is therefore acceptable as long as the book value does not diverge significantly from the market value.

The ESA 2010 (7.33) requirement is for assets and liabilities to be valued at market prices on the date to which the balance sheet relates. Specifically, the ESA 2010 (7.71) requires listed shares to be valued at market price. The general market price rule also applies to unlisted shares and other equity, though by definition no market prices are available for these items. The ESA 2010 (7.73) sets out clear rules for the valuation of unlisted shares. Their values should be estimated with reference to either:

⁹⁴ See Table 2 in Part 4 of Annex II to Guideline ECB/2018/17, amending Guideline ECB/014/15.

⁹⁵ Specifically, in the capital and reserves sub-item "equity capital raised" (see Section 4.8.1).

⁹⁶ See Article 3(6) and Part 11, Section 2(4) of Annex II to Guideline ECB/2014/15.

- (i) the values of listed shares where appropriate;
- (ii) the value of own funds;
- (iii) discounting forecast profits by applying an appropriate market price to earnings ratio to the smoothed recent earnings of the institutional units.

However, these estimates will take into account liquidity (assumed to be inferior for unlisted shares), the net worth accumulated by the business, and its branch of activity (7.73). The ESA 2010 (7.74) goes on to suggest a formula, taking into account own funds (but with discretion, having regard to differences between listed and unlisted corporations):

- value of unlisted shares = market price of similar listed shares x (own funds of unlisted corporations / own funds of similar listed corporations).

The ESA 2010 (7.07) defines own funds as the sum of net worth (B.90) plus the value of equity and investment fund shares (AF.5) as liabilities in the balance sheet. This is called the capitalisation approach.

Sections 5.2 and 5.3 discuss how transactions in equity (assets) are derived from balance sheet levels based on varying valuation practices.

4.7 Investment fund shares/units

Regulation ECB/2013/33 defines investment fund shares/units as those issued by investment funds, which are collective investment undertakings (CIUs) that invest in financial and/or non-financial assets, to the extent that the objective is investing capital raised from the public. The ESA 2010 (5.160-5.161) defines investment fund shares or units (AF.52) as shares of an investment fund if the fund has a corporate structure, or units if the fund is a trust. Investment funds are defined as CIUs through which investors pool funds for investment in financial and/or non-financial assets. They are called mutual funds, unit trusts, investment trusts and undertakings for collective investments in transferable securities (UCITS), and may be open-ended, semi-open or closed-end funds. These instruments are further split depending on the issuer: i.e. MMF and non-MMF investment funds.

4.7.1 MMF shares/units

MMFs are defined in Article 2 of Regulation ECB/2013/33 (see Section 2.1.3). MMFs are part of the MFI sector, and their shares/units (AF.521 in the ESA 2010) are part of the money-holding sector in the euro area and form part of euro area broad money. For this reason, Regulation ECB/2013/33 requires an MFI's holdings of MMF shares/units to be reported separately on the assets side of the MFI balance sheet, and an MMF's issues of shares/units to be reported separately on the liabilities side of the MFI balance sheet.

4.7.2 Non-MMF investment fund shares/units

Non-MMF investment funds are defined in Article 1(1) of Regulation ECB/2013/38⁹⁷. Non-MMF investment fund shares/units correspond to the instrument category AF.522 in ESA 2010. They are defined in the ESA 2010 (5.165) as investment fund shares or units other than MMF shares or units which represent a claim on a portion of the value of an investment fund other than an MMF and are issued by investment funds.

4.7.3 Valuation principles of investment fund shares/units

Article 8 of Regulation ECB/2013/33 states that the accounting rules followed by MFIs shall be those laid down in the national transposition of Council Directive 86/635/EEC of 8 December 1986 on the annual accounts and consolidated accounts of banks and other financial institutions, as well as in any other international standards applicable, unless otherwise provided for in Regulation ECB/2013/33. It also requires all financial assets and liabilities to be reported on a gross basis (without prejudice to accounting practices and netting arrangements prevailing in Member States). Guideline ECB/2014/15 requires that “in line with the ESA 2010, investment fund shares/units must be reported at market value”.

The ESA 2010 (7.33) requirement is for assets and liabilities to be valued at market prices on the date to which the balance sheet relates. The ESA 2010 (5.162 and 5.167) also specifies that investment fund shares may be listed or unlisted. Unlisted shares are usually repayable on request, at a value corresponding to their share in the own funds of the financial corporation. Transactions in investment fund shares or units include the value of net contributions to a fund.

Revaluation adjustments are reported for MMF shares and units issued and held, but not for holdings of non-MMF investment fund shares and units. The allocation should be performed in such a way as to only cover the actual price revaluations that are reflected as changes in the value of MMF shares/units, and as a result of losses/gains on the fund's assets. Where derogations are granted to some or all MMFs in respect of the reporting of revaluation adjustments, as per Guideline ECB/2014/15, NCBs are nevertheless expected to provide information on a best efforts basis, especially when the amounts involved are significant.

4.8 Capital and reserves

This category comprises amounts arising from equity capital issued by reporting agents, representing for the holder property rights in the MFI and generally an entitlement to a share in its profits and in its residual value in the event of liquidation. Profit (or loss) as recorded in the statement of profit and loss, funds arising from

⁹⁷ Regulation (EU) No 1073/2013 of the ECB of 18 October 2013 concerning statistics on the assets and liabilities of investment funds (recast) (ECB/2013/38) (OJ L 297, 7.11.2013, p. 73).

income not distributed to the shareholders, and provisions set aside by reporting agents in anticipation of likely future payments and obligations are also included.

Capital and reserves generally includes the counterpart of any revaluations of assets held, which is particularly relevant if the reporting agent is subject to fair value accounting.

Regulation ECB/2013/33 states that “capital and reserves” includes the following sub-items:

- (i) equity capital raised;
- (ii) profit or loss accumulated in the accounting period;
- (iii) income and expenses recognised directly in equity;
- (iv) funds arising from income not distributed to shareholders;
- (v) provisions.

Guideline ECB/2018/17 (amending Guideline ECB ECB/2014/15) requires the above items be identified separately under “capital and reserves” on a monthly basis.

4.8.1 Equity capital raised

This item includes the full amount of equity capital raised. It is recorded at its original value on the balance sheet and should reflect the amount raised including the share premium or discount, i.e. the difference between the nominal value of issued equity and the amount actually raised. It includes all funds contributed by the owners, from the initial contribution to any subsequent issuance of forms of ownership, and reflects the full amount of capital raised. Equity capital raised is reported net of the reporting MFI’s holdings of own securities, as per Section 4.6.1.4 above.

The distinguishing feature of equity compared with other financial instruments is that equity instruments must convey a right on the residual value of a company and do not give rise to a contractual obligation for the institution to deliver cash or another financial asset under conditions that are potentially unfavourable to the issuer.

Ordinary shares represent the typical form of equity. Other instruments such as preference shares, partly paid shares, redeemable shares or non-voting shares would also be classified as equity to the extent that they meet the functional criteria mentioned above (see also Section 4.6 on equity held). Non-participating preference shares are reported as debt securities, while participating preference shares (provided that the dividend distribution is discretionary) are recorded as equity. Where MFIs issue instruments in tranches with different characteristics, they should be assigned according to the characteristics of the securities in each tranche.

4.8.2 Profit or loss accumulated in the accounting period

This item is a cumulative account consisting of all profits and losses of the current accounting period as recorded in the statement of profit and loss that have not yet been transferred to retained earnings. These interim profits and losses result from the stocking of income-generating items such as (net) interest, fees and commissions, trading income, dividends/other income from equity investment, etc. and operating expenses such as payroll costs, administrative expenses, etc. It also includes realised and unrealised gains and losses to the extent that they are allocated to the statement of profit and loss according to the accounting framework.⁹⁸

Operating profits/losses are defined as the amounts that (i) accumulate during the MFI's accounting/financial reporting period (resulting from accumulated interest and commission income and expenditure, gains or losses on financial transactions, etc.) and (ii) are acknowledged for prudential reasons but have not yet been formally recognised as profits/losses in the annual (or quarterly) accounts. They comprise gains/losses and possibly unrealised losses, but generally not unrealised gains (which remain in the revaluation accounts).

As operating profits/losses do not represent a third-party claim, reporting agents should preferably report them net of any provisions for future tax and dividend payments (which should be classified under "remaining liabilities"). However, NCBs may follow the supervisory/accounting approach, which requires MFIs to enter profits/losses in "remaining liabilities" and move them to the "capital and reserves" sub-item only after they have been formally recognised as such when the accounts for the financial reporting period have been closed. At the end of the accounting period the accumulated profit or loss is reclassified as retained earnings within the item "funds arising from income not distributed to shareholders" until a decision on the distribution of dividends or appropriation as reserves has been made.

4.8.3 Income and expenses recognised directly in equity

This item is the counterpart to the net revaluations of assets and liabilities which are recorded directly in equity and not in the statement of profit and loss according to the accounting framework. Once realised, these gains and losses are normally moved to profit and loss for the period. This category typically records unrealised gains and losses relating to securities that are not measured at fair value through profit and loss. This item is the accumulated value of the revaluations posted in both current and previous years.

⁹⁸ Whenever the accounting framework allows "hedge accounting", i.e. the possibility of matching the gain/loss on the hedging instrument to the hedged item, the net gain/loss is normally recorded in the statement of profit and loss or directly in equity.

4.8.4 Funds arising from income not distributed to shareholders

This item includes reserves and other funds such as the portion of income from the current year and net income for the period that will not be distributed to shareholders. Reserves may be required by law and are usually created with the aim of protecting the institution from possible general losses or from specific activities undertaken. It also includes profit or loss brought forward after the end of the accounting period and before a decision on the distribution of dividends or appropriation as reserves has been taken. Once the decision on the distribution of dividends is taken, the component appropriated as reserves remains within “funds arising from income not distributed to shareholders”.

Dividends awaiting distribution are reported under “remaining liabilities”.

4.8.5 Provisions

This item comprises specific and general provisions against loans, securities and other types of assets. Such provisions should comprise all allowances for impairments and loan losses. Provisions should be reflected in capital and reserves only to the extent that they are not netted against the asset position of the accounting balance sheet to which they refer, i.e. to balance the loss recorded in the statement of profit and loss. When a new provision is created, “provisions” increases by an equivalent amount, the counterpart being a cost in the statement of profit and loss.

Provisions representing liabilities against third parties, such as provisions for pending legal issues and litigations, pensions and related benefits, etc. should not be included here but reported under “remaining liabilities”.

Box 2

Bridging table between IAS/IFRS/GAAP and MFI balance sheet statistics

The table below links the sub-components of capital and reserves with the definition used in FINREP on the basis of IAS/IFRS guidance and local GAAP.⁹⁹

BSI item	FINREP item	Reference for the definition of the FINREP item	FINREP (Annex IV – nGAAP templates) punctual reference (table_row_column)
Equity capital raised	Capital	IAS 1.54(r), BAD Art. 22, IAS 1.78(e)	F01.03,010_010
	+ Share premium	IAS 1.78(e); CRR Art. 4(124)	F01.03,040_010
	+ Equity instruments issued other than capital	FINREP Annex V, Part 2.18-19, IAS 32.28-29	F01.03,050_010
	+ Other equity	IFRS 2.10; FINREP Annex V, Part 2.20	F01.03,080_010

⁹⁹ This table is an updated version of the corresponding section of Table 7.3.3 as presented in the third version of *Bridging the reporting requirements – methodological manual*, published in May 2014. See the website of the [ECB](#) or [EBA](#).

	- Treasury shares	IAS 1.79(a)(vi); IAS 32.33-34, AG 14, AG 36; FINREP Annex V, Part 2.30	F01.03,240_010
	- Share capital repayable on demand ¹⁰⁰	IAS 32 IE 33; IFRIC 2; FINREP Annex V, Part 2.12	F01.02,270_010
Profit and loss accumulated in the accounting period	Profit or loss attributable to owners of the parent	IAS 1.81B (b)(ii)	F01.03_250_010
	- Interim dividends	IAS 32.35	F01.03,260_010
	- Fair value changes of the hedged items in portfolio hedge of interest rate risk (assets)	IAS 39.89A(a); IFRS 9.6.5.8	F01.01,250_010
	+ Fair value changes of the hedged items in portfolio hedge of interest rate risk (liabilities)	IAS 39.89A(b); IFRS 9.6.5.8	F01.02,160_010
Income and expenses recognised directly in equity	Accumulated other comprehensive income	CRR Art. 4(100)	F01.03,090_010
Funds arising from income not distributed to shareholders	+ Retained earnings	CRR Art. 4(123)	F01.03,190_010
	+ Revaluation reserves	IFRS 1.30, D5-D8; FINREP Annex V, Part 2.28	F01.03,200_010
	+ Other reserves	IAS 1.54; IAS 1.78(e)	F01.03,210_010
Specific and general provisions¹⁰¹	Loans and advances ¹⁰² – Allowances for financial assets without increase in credit risk since initial recognition (Stage 1)	IFRS 9.5.5.5, FINREP Annex V, Part 1.32, 44(a)	F12.01,080_100 Also: see references to columns 20-90
	+ Loans and advances – Allowances for debt instruments with significant increase in credit risk since initial recognition but not credit-impaired (Stage 2)	IFRS 9.5.5.3, FINREP Annex V, Part 1.32, 44(a)	F12.01,250_100 Also: see references to columns 20-90
	+ Loans and advances – Allowances for credit-impaired debt instruments (Stage 3)	IFRS 9.5.5.1, 9. Appendix A, FINREP Annex V, Part 1.32, 44(a)	F12.01,430_100 Also: see references to columns 20-90
	+ Non-trading financial assets mandatorily at fair value through profit or loss – Loans and advances – Accumulated negative changes in fair value due to credit risk on non-performing exposures ¹⁰³	FINREP Annex V, Part 2.69, FINREP Annex V, Part 1.32, 44(a)	F04.02.01,110_020
	+ Financial assets designated at fair value through profit or loss – Loans and advances – Accumulated negative changes in fair value owing to credit risk on non-performing exposures	FINREP Annex V, Part 2.69, FINREP Annex V, Part 1.32, 44(a)	F04.02.02,120_021

4.8.6 Transactions in capital and reserves

Operations which have an impact on capital and reserves result in transactions if they affect the reporting MFI's cash flows or the share of these flows for the investors. While revaluation and reclassification adjustments of the sub-items are not a reporting requirement for MFI balance sheet statistics, the following operations will have an impact on the aggregate "capital and reserves" balance sheet item if revaluation and reclassification adjustments are reported.

¹⁰⁰ The part for which significant restrictions do not apply is not considered equity in statistical terms and is therefore subtracted.

¹⁰¹ Under IAS/IFRS this category only includes allowances on loans.

¹⁰² This FINREP item also covers instruments that are not classified as loans in statistical terms. The allowances relating to instruments that do not meet the statistical definition should be excluded.

¹⁰³ As a proxy for impairment losses.

Transactions in **equity capital raised** include new funds contributed by owners less withdrawal of equity. As equity is recorded net of own holdings (see Section 4.6.1.4), a buyback of the MFI's shares is recorded as a transaction, as is the conversion of bonds from debt to equity at the time of conversion.

Transactions in **profit or loss accumulated in the accounting period** would include income and expenses arising from actual business transactions, e.g. accrual of interest, reception of income from dividends, and income generated by fees. Conversely, any changes arising from gains or losses recorded in the statement of profit and loss are recorded as revaluation adjustments (see Chapter 5). As in Section 4.8.2, when accumulated profit or loss is officially transferred to retained earnings, the transfer of the amounts between "profit and loss accumulated in the accounting period" and "funds arising from income not distributed to shareholders" should be regarded as a reclassification adjustment within "capital and reserves".

Transactions do not typically occur in **income and expenses recognised directly in equity**. Unrealised valuation changes should be recorded as revaluation adjustments. Realised valuation changes, which can represent an outflow of funds, occur when the valuation changes imputed to this item are realised and recorded in the statement of profit and loss, for example when a security whose valuation changes are recorded directly at equity is sold. This operation would be considered to be a reclassification adjustment, but as it is within capital and reserves the aggregate will not change.¹⁰⁴

Transactions in **funds arising from income not distributed to shareholders** would include outflows arising from dividend distributions to shareholders. As above, the transfer of accumulated profit and loss to retained earnings should be recorded as a reclassification within capital and reserves.

Specific and general **provisions** are normally impacted by the creation of new provisions, their reversal, or the write-off/write-down (or revaluation) of assets. When a provision is created or reversed, a counterpart entry is made in the statement of profit and loss, meaning that capital and reserves remains unchanged in the aggregate. In statistical terms this effect can be viewed as an anticipation of future write-offs/write-downs on loans or revaluations on other assets and should therefore be treated as a revaluation adjustment. When a loan is written off/written down (as detailed in Section 5.4), the decrease in outstanding amounts is matched by a corresponding decrease in capital and reserves, impacting provisions (and the statement of profit and loss where the loss exceeds the imputed provisions). These effects should be treated as revaluation adjustments.

The treatment of provisions imputed against securities or other types of assets at the time the corresponding asset is no longer recorded on the balance sheet (i.e. in the case of sale) is more complicated. The treatment depends on the valuation method applied for the assets (i.e. statistical discrepancies arising from different valuation

¹⁰⁴ The reclassification adjustment covers the gains/losses already accumulated in equity, while newly incurred gains/losses at the time of sale are directly recorded in the statement of profit and loss and represent revaluation adjustments.

methods in the statistical and accounting balance sheet), but the underlying principle is that changes in provisions owing to such effects should not result in transactions.

4.9 Non-financial assets (including fixed assets)

This category consists of tangible or intangible assets other than financial assets. It includes dwellings, other buildings and structures, machinery and equipment, valuables, and intellectual property products such as computer software and databases owned by the reporting MFI. It also includes properties taken into possession by MFIs (as collateral on defaulted loans), and virtual currencies which are not financial assets. As noted in Section 4.2.3.3, MFIs' holdings of coins that are not intended for circulation (such as collector coins) and gold coins held by MFIs (other than central banks) are also included here.

In the ESA 2010, non-financial assets (as recorded on the MFI balance sheet) fall into various categories of produced non-financial (AN.1) and non-produced non-financial assets (AN.2). Produced non-financial assets are outputs from production processes and include fixed assets such as buildings, intellectual property, inventories and valuables. Non-produced non-financial assets comprise economic assets that come into existence other than through processes of production. They include land, natural resources, contracts, leases, licences and goodwill.

In the context of leases, assets underlying financial leases used by the reporting MFI (as lessee) should be included in this category. Operational lease assets subject to on-balance-sheet recognition under IFRS 16 are also included here.¹⁰⁵ The offsetting entry to an operational lease obligation is recorded under "remaining liabilities". This is an apparent deviation from the definition of operating leases under the ESA 2010.¹⁰⁶ Any impact on the MFI balance sheet owing to the application of IFRS 16 is recorded as a reclassification adjustment.

Financial assets which the reporting MFI may regard as fixed (e.g. shareholdings in subsidiaries or affiliates, loans, or debt securities which the MFI intends to hold to maturity) are not recorded here but under "equity", "debt securities", or "loans" according to the type of instrument.

4.9.1 Valuation principles of non-financial assets

The ESA 2010 (7.42) states that fixed assets are recorded at market prices if possible (or basic prices in the case of own-account production of new assets) or, if not possible, then at purchasers' prices at acquisition reduced by the accumulated

¹⁰⁵ IFRS 16 *Leases* introduced the on-balance-sheet recording of operating leases, except short-term leases or those with a low value underlying asset (see IFRS 16:5). It includes a revised definition for identifying leases (see IFRS 16:9).

¹⁰⁶ Operating leases are defined by the ESA 2010 (15.08). The durable good which is the subject of the operating lease is recorded on the balance sheet of the lessor as there is no change of economic or legal ownership, and payments under the lease are rentals (a form of payment for services).

consumption of fixed capital. Items should be valued as if they were being acquired on the date to which the balance sheet relates (i.e. at current market prices). The valuation of non-financial assets should include any associated costs of ownership transfer.

Regulation ECB/2013/33 provides no specific guidance on the valuation of non-financial assets. They are covered by the general prescription in Article 8 on the national transposition of Council Directive 86/635/EEC with respect to the accounting rules to be followed by MFIs. For harmonisation purposes, the ESA 2010 guidance should be followed. As with all MFI balance sheet data, financial assets and liabilities are reported on a gross basis.

4.10 Remaining assets and remaining liabilities

Remaining assets (or remaining liabilities) are the residual items on the balance sheet, comprising assets (or liabilities) not included elsewhere. NCBs may require the reporting of specific sub-positions included in this item. For the purposes of MFI balance sheet statistics, remaining assets (or liabilities) include what the ESA 2010 calls “other accounts receivable/payable” (AF.8), but also certain other items such as positions in financial derivatives (AF.71 in the ESA 2010) and accrued interest on deposits and loans, which the ESA 2010 recommends should be recorded in the underlying instrument (see also Section 2.5.2). Net amounts receivable/payable in respect of future settlement of transactions in securities or foreign exchange operations is also included, as are statistical discrepancies which may arise when the statistical balance sheet is derived from the accounting balance sheet.

Some data on remaining assets and remaining liabilities are reported monthly as a memorandum item (i.e. not as a mandatory item but only to the extent available), namely transit items, suspense items and (only for the Eurosystem) intra-Eurosystem positions arising from the allocation of euro banknotes (see Section 4.2 and Section 7.1 for an explanation of how these positions arise). MFIs also report, as memorandum items, additional quarterly breakdowns of remaining assets and remaining liabilities for the purposes of compiling euro area financial accounts (see Section 8.2).

The categories “remaining assets” and “remaining liabilities” exclude certain financial instruments such as guarantees, commitments, and administered and trust loans, which should not be recorded on the reporting MFI’s statistical balance sheet if the reporting MFI does not bear the economic risks and returns of the loan (see also Sections 4.3.9 and 4.4.8). They should also exclude non-financial assets such as land and commodities, which are recorded in “non-financial assets (including fixed assets)” (see Section 4.9), and liabilities which the reporting MFI may regard as non-financial but which represent shareholders’ funds (to be included in “capital and reserves” as per Section 4.8).

Remaining assets (or liabilities) on the MFI balance sheet include positions outlined in the following sections. These are the contents of remaining assets/remaining liabilities as set out in Regulation ECB/2013/33.

4.10.1 Financial derivative positions subject to on-balance-sheet recording

A financial derivative is a financial instrument that is linked to another financial instrument, index or commodity and enables specific risks (e.g. changes in interest rates, foreign exchange rates, prices or credit standing) to be traded in financial markets in their own right. The ESA 2010 requires positions in financial derivatives to be recorded for both involved parties, whether the market value is available or not. In the latter case the derivatives should be valued at either the amount required to buy out or to offset the contract (e.g. for over-the-counter options) or the amount of premium payable (7.86). The current market price of a derivative values the claim of one party on the other. It is this value that is recorded in MFI balance sheet statistics if an MFI is a party to the contract. Whether it is recorded as an asset or as a liability depends on the market value, which may fluctuate between positive (an asset) and negative (a liability) over the life of the contract (the same derivative instrument could thus be recorded as an asset or a liability over the course of its lifetime). The market price can also be zero, as it is at the start of a swap contract.

Derivatives are recorded in the MFI balance sheet on a gross basis at market value unless business accounting rules require off-balance-sheet recording. They are identified separately under “remaining assets” if they have a positive value for the reporting MFI or under “remaining liabilities” if they have a negative value. Positions are reported vis-à-vis MFIs and aggregated “non-MFI” counterparts, with a geographical breakdown (domestic, euro area other than domestic, and rest of the world residents).

For statistical purposes, a derivative is treated as a separate financial instrument from the instrument on which the contract is based. Derivative positions recorded in the MFI balance sheet are therefore not linked to the underlying financial instrument, nor do they reveal the nominal amount for which the contract was struck. See also Section 4.4.8.3 on deposits with embedded derivatives and Section 4.5.1.4 on debt securities with embedded derivatives.

Box 3

Interest rate swaps and currency swaps

Interest rate swaps are derivative contracts that commit two parties to a future exchange of payment streams related to fixed or floating interest rates in the same currency for an agreed period of time. Currency swaps (sometimes called cross-currency interest rate swaps) are similar derivative contracts except that the payment streams relate to fixed or floating interest rates in different currencies. The payments are based on notional amounts of principal, which are fixed at the initiation of the swap. The swap contract may (but typically does not) involve an exchange of these principal amounts. Central bank swap arrangements are treated as standard currency swaps

for the purposes of MFI balance sheet statistics. Namely, an NCB or the ECB purchases foreign currency with local currency and simultaneously recognises a forward contract which reflects the obligation to unwind the operation at a certain date.

In accordance with the statistical treatment applicable to all financial derivative instruments, MFI balance sheets should include at market value those interest rate or currency swap contracts that have a market value, which is the market price that reflects the net present value of the (known or expected, payable or receivable) streams of cash flows. Such net present value is then allocated according to its sign, i.e. to its sub-item under “remaining assets” if positive or under “remaining liabilities” if negative. No other entries should be made on the balance sheet in respect of the outstanding commitment to a future exchange of payment streams or principal.

If accounting conventions require interest rate and currency swaps and other forward-type instruments to be recorded on the balance sheet on a gross basis (i.e. recording the present values of inflows and outflows separately, without netting), reporting agents should, for the purposes of MFI balance sheet statistics, calculate the net value of these entries and allocate it as described above.

4.10.2 Non-repayable margins lodged under derivative contracts (remaining liabilities)

Section 4.4.8.4 on repayable margin deposits noted that margins under financial derivative contracts placed as cash collateral with reporting MFIs should be classified as deposits with agreed maturity where they remain in the depositor’s ownership and are repayable to the depositor when the contract is closed out and the MFI receiving the amount is free to use the funds. In principle, where part of the margin must be retained, e.g. for the clearing house, only the part at the disposal of the MFI should be classified as a deposit liability. All repayable margin deposits are therefore to be treated as loans/deposits, while non-repayable margin deposits are to be treated as transactions in the financial derivative since they reduce the liability created through the financial derivative. Where repayable and non-repayable margin deposits are recorded in the same account, it can be very difficult to distinguish between the two. In such cases Regulation ECB/2013/33 allows them to be recorded under “deposits” or “remaining liabilities” (analogous to Section 4.4.8.4). The maturity classification is determined by the period of the derivative contract, as the deposit is in effect blocked until the derivative matures. However, in cases where a central counterparty is involved to the extent that there is no link between the deposit and the derivative contract, the maturity is as stated in the deposit contract.

4.10.3 Gross amounts receivable (remaining assets) or payable (remaining liabilities) in respect of suspense items

Suspense items are balances on an MFI’s balance sheet which are not booked in the name of customers but nevertheless relate to customers’ funds (e.g. amounts awaiting investment, transfer or settlement). As a general rule, reporting agents

should present suspense items on the balance sheet on a gross basis. Suspense items that represent a liability for the reporting MFI (e.g. customer funds awaiting transfer) should be reported as a separate “of which” item under “remaining liabilities”, while asset suspense items should be reported separately under “remaining assets”. There may be exceptions to this general rule. Where asset suspense balances are closely associated with the balance sheet items to which they relate, reporting agents could continue to record suspense balances within those items without identifying them separately, thus retaining the breakdowns by sector, residence, etc. In such cases reallocating the amount involved to the residual categories of “remaining assets” or “remaining liabilities” would imply a loss of information.

4.10.4 Gross amounts receivable (remaining assets) or payable (remaining liabilities) in respect of transit items

Transit items represent funds (usually belonging to customers) that are in the course of being transmitted between MFIs. Remaining assets include cheques and other forms of payment that have been sent for collection to other MFIs. Remaining liabilities include credit transfers and other items for which the corresponding payment has not yet been made by the reporting MFI. Reporting agents should record on a gross basis amounts receivable/payable in respect of transit items that are outstanding on the reporting date, classifying them as a separate “of which” item under “remaining assets” or “remaining liabilities” as appropriate.

4.10.5 Net amounts receivable/payable in respect of future settlement of foreign exchange transactions

For statistical purposes, the exchange of deposits usually associated with spot foreign exchange transactions should be recorded on the settlement date (the ESA 2010 (5.51) requires financial transactions to be recorded when payment takes place). Nevertheless, the ECB accepts that this exchange may be recorded on the contract date if this is the current treatment in MFIs’ accounting systems. Reporting agents should then enter foreign exchange amounts receivable/payable on the balance sheet on the contract date. The aggregate of amounts receivable/payable should be recorded on a net basis at market value in “remaining assets” or “remaining liabilities”, according to the sign.

Given the limited analytical value of the information, however, the ECB accepts that these amounts receivable/payable may be treated as off-balance-sheet positions for the purposes of MFI balance sheet statistics, if this is the current treatment in MFIs’ accounting systems. MFIs’ accounting systems may not distinguish such amounts receivable/payable from forward contracts with a residual maturity of 1-2 days. If forward positions are already recorded as financial derivatives on the balance sheet at market value (see Section 4.10.1 above on financial derivatives), the ECB accepts that the amounts receivable/payable arising from unsettled spot foreign exchange

operations may also be classified as “financial derivatives” (which are also classified under “remaining assets” or “remaining liabilities”).

4.10.6 Accrued interest receivable (remaining assets) or payable (remaining liabilities)

Interest receivable on loans and debt securities held should be recorded on the balance sheet as it accrues and not when it is actually received. In a departure from the treatment preferred by the ESA 2010, it should be reported as a separate “of which” item under “remaining assets” rather than being added to the underlying asset to which it relates (see also Section 2.5.2). Similarly, interest payable on deposits and debt securities issued should be reported as a separate “of which” item under “remaining liabilities” rather than being added to the underlying liability to which it relates. Unpaid interest past due is included in the outstanding nominal amount of the instrument and is not recorded here.

Accrued interest is defined in Regulation ECB/2013/33 (Point 7(d) in the table in Part 2 of Annex II), as interest receivable on loans, which should be subject to on-balance-sheet recording as it accrues (accruals basis) rather than when it is actually received (cash basis).¹⁰⁷

4.10.7 Dividends to be received (remaining assets) or paid (remaining liabilities)

In accordance with the ESA 2010 (4.57), and unlike the treatment of interest, dividends are recorded when they become due rather than being accrued over the period to which they relate. They are recorded at the point in time at which the share price starts to be quoted on an ex-dividend basis and not at a price that includes the dividend. In line with FINREP, dividends to be received (paid) should be included under “remaining assets” (“remaining liabilities”) at the moment the shareholder’s right to receive a payment is established (i.e. awaiting distribution as per Section 4.8.4).¹⁰⁸ The receipt of income from dividends or the distribution of dividends is recorded as a transaction (with a counter entry in the profit and loss account).

¹⁰⁷ This is in accordance with the general principle of accruals accounting and FINREP and AnaCredit reporting under Regulation ECB/2016/13.

¹⁰⁸ See IAS 18.29-30 and Section 7.3.3 of the “MFI balance sheet and interest rate statistics, securities holdings statistics and implementing technical standards on supervisory reporting” report, which can be found on the [ECB’s website](#).

4.10.8 Provisions representing liabilities against third parties (pensions)

Where the reporting MFI provides for employee pensions through a non-autonomous pension scheme, the technical reserves of the fund (meaning its liability to present and future pensioners) are to be recorded under “remaining liabilities”.

4.10.9 Amounts receivable (remaining assets), or payable (remaining liabilities) which do not relate to the reporting MFI’s main business

This category includes amounts receivable or payable in respect of trade credit, amounts due to suppliers, tax due or rebates receivable, wages and social contributions payable, etc.

4.10.10 Asset counterpart to coins issued (remaining assets – central bank balance sheets only)

In euro area countries coins are usually a liability of central government and not of the central bank, although in all cases coins are reported under the liability item “currency in circulation” on central banks’ balance sheets and are part of the monetary aggregates (see Section 4.2.2 above). Where central government is the legal issuer of coins, a notional offsetting claim on central government is entered under “remaining assets”.

4.10.11 Banknotes and coins denominated in the former national currency which remain outstanding after adoption of the euro

As noted in Section 4.2.3.1, outstanding amounts of banknotes and coins in the former national currency continue to be reported under “cash” or “currency in circulation” for 12 months and are then to be transferred to remaining assets and liabilities.

4.10.12 Intra-Eurosystem net assets or liabilities related to the allocation of euro banknotes

As discussed in Section 4.2.2, euro currency in circulation is, for statistical purposes, allocated among Member States based on the banknote allocation key, whereby 8% of total Eurosystem issuance is allocated to the ECB and the remainder to NCBs according to their respective shares in the capital of the ECB. The difference between this allocation and the amount actually put into circulation by the central bank is recorded under “remaining assets” or “remaining liabilities” depending on the sign.

4.10.13 Irrevocable payment commitments (IPCs)

An IPC is an obligation from one party to another, formalised in a contract, to execute a future payment under certain circumstances. The obligation is typically perpetual and irrevocable, and will remain unchanged until such obligation is fulfilled. This type of financial arrangement is usually guaranteed by a pledge of assets (securities or cash). IPCs can be used as an alternative payment to cash for the ex ante contribution of credit institutions to national resolution funds, deposit guarantee schemes and the Single Resolution Fund (SRF).

For the purposes of statistical reporting, IPCs which are used as an alternative way of financing ex ante contributions to the SRF are to be treated as firm financial liabilities of the credit institution contributing to the SRF (i.e. as opposed to an off-balance-sheet contingent liability).¹⁰⁹ They should therefore be recorded under “remaining liabilities” by the reporting MFI using them (matched by an expense in “capital and reserves”). IPCs in this context correspond to payments not settled with cash, on the basis that all Single Resolution Board (SRB) ex ante contributions are treated as taxes. This is in line with the ESA 2010 (5.06) definition of a financial liability as an obligation to provide a payment or a series of payments to a creditor. Should the IPC be cancelled, the liability is extinguished and a reclassification should be recorded for both “remaining liabilities” and “capital and reserves”, as opposed to considering them as transactions.

Collateral underlying the IPC is treated analogously to the recording of securities lending with cash collateral or a reverse repo as outlined in Section 4.3.4. In the case of cash collateral, a loan vis-à-vis the SRB is recorded by the reporting MFI, matched by a decrease in cash (actually paid to the Banque de France, which manages the IPCs of credit institutions to the SRB and acts as the depository of assets pledged).

As outlined in Section 2.3.3, the SRF is considered part of the SRB and is classified as a central government entity within the “rest of world” sector.

4.10.14 Valuation principles of remaining assets and remaining liabilities

Regulation ECB/2013/33 provides no specific guidance on the valuation of remaining assets and remaining liabilities. They are covered by the general prescription in Article 8 of the Regulation that the accounting rules followed by MFIs shall be those laid down in the national transposition of Council Directive 86/635/EEC. For harmonisation purposes, ESA 2010 guidance should be followed. As with all MFI balance sheet data, financial assets and liabilities are reported on a gross basis.

The ESA 2010 (7.90) says that trade credits and advances and other accounts receivable/payable are to be valued on the balance sheet of both creditor and debtor

¹⁰⁹ For further details, see the European Commission’s “Eurostat guidance note on statistical implications of new resolution legislation”, which can be found on the [European Commission's website](#). Under Article 8(1) of Regulation ECB/2013/33, however, the accounting rules followed by banks form the basis for their statistical reporting, so not all banks will diverge from their accounting treatment of IPCs.

at nominal value. For financial derivatives (included in a separate instrument category in the ESA 2010 (AF.71) rather than in other accounts receivable/payable), the general rule of market valuation applies.

4.11 Eurosystem reserve assets

Under Guideline ECB/2014/15, NCBs and the ECB must report data on their own holdings of monetary gold under “gold and gold receivables (only monetary gold)”, and receivables from the IMF, such as special drawing rights (SDRs), under “receivables from the IMF – drawing rights, SDRs, other”, which are identified separately on the assets side of the balance sheet. In addition, NCBs and the ECB must report their liability counterpart to the allocation of special drawing rights from the IMF, identified separately on the liabilities side of the balance sheet as “counterpart of SDRs”.

Gold,¹¹⁰ SDRs and external claims of the NCB which meet the IMF’s definition of reserve assets in terms of liquidity, ready availability for use and credit standing of the debtor constitute external reserves. These external claims will typically include substantial assets denominated in foreign currencies, representing claims on non-residents, typically central banks, other MFIs or governments. For euro area countries, cross-border claims within the euro area (irrespective of the currency of denomination) and claims denominated in euro are not reserve assets irrespective of the identity of the debtor.

The ECB publishes monthly data on reserve assets of the Eurosystem as part of the balance of payments and international investment position of the euro area. The MFI balance sheet reporting framework for NCBs does not include a position called reserve asset instruments, however. Monetary gold is instead recorded in a dedicated sub-item, while holdings of SDRs together with other asset positions vis-à-vis the IMF are reported in the item “receivables from the IMF”. The ECB does not show these items separately in published MFI balance sheet statistics, but includes them indistinguishably in MFIs’ external assets without identifying them separately (see also Section 7.1).

Receivables from the IMF represent the asset position a member country holds vis-à-vis the Fund. In accordance with the IMF’s definition, these receivables consist of (i) the reserve tranche, i.e. any foreign currency holdings (including SDRs) that a member country may draw at short notice; (ii) any debt of the IMF (under a loan agreement) in the General Resource Account, the General Arrangements to Borrow and the New Arrangement to Borrow; and (iii) any existing claims arising from contributions to trusts, such as the one related to the Poverty Reduction and Growth Facility (formerly ESAF). Points (i) and (ii) correspond to the reserve position vis-à-

¹¹⁰ As noted in Section 4.2.3.3, gold held by a central bank is normally classified as monetary gold and is a financial asset, whereas gold held by anyone else (including other MFIs) is treated statistically as a commodity and thus reported under “non-financial assets (including fixed assets)”.

vis the IMF as collected for the balance of payments and international investment position.

4.11.1 Valuation principles of reserve assets

With regard to the valuation of monetary gold and receivables from the IMF, the former should be valued at its market price on the balance sheet date, in line with the ESA 2010 (7.62). Receivables from the IMF are denominated in SDR and should be converted into euro at the rate published by the IMF on the balance sheet date, in line with the ESA 2010 (7.63).¹¹¹ SDRs are issued without charge. To balance the holdings of SDRs, a notional accounting entry (“counterpart of IMF special drawing rights”) is recorded on the liabilities side of the balance sheet. For statistical purposes, general and special allocations of drawing rights are treated as a reclassification and not as a transaction. Fluctuations in the euro amount of all positions denominated in SDR arising from exchange rate changes should be taken into account by way of a revaluation adjustment for “receivables from the IMF” under assets and for “counterpart of SDRs” under liabilities.

¹¹¹ See the [IMF website](#).

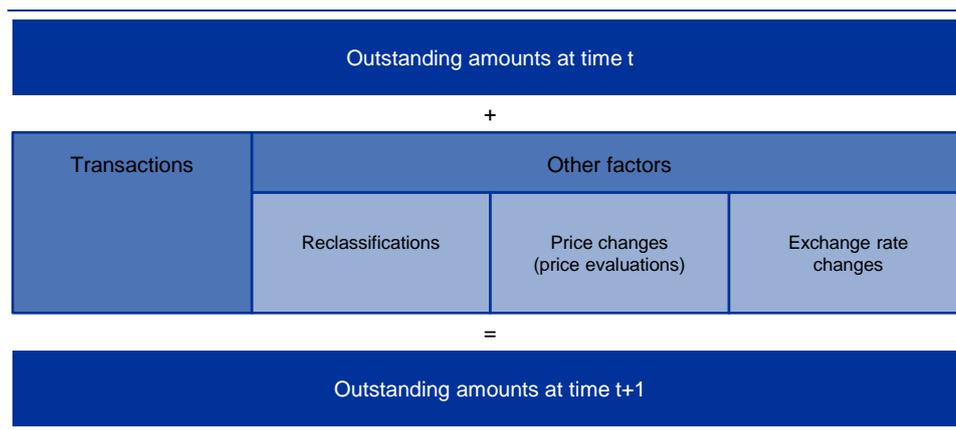
5 Transactions and adjustments

5.1 Conceptual overview

An important element in MFI balance sheet statistics is the distinction between transactions and other factors affecting balance sheet outstanding amounts and their change over a reference period. These other factors comprise valuation effects arising from changes in prices, or in exchange rates on the one hand and reclassifications (which ESA 2010 *inter alia* refers to as “other changes in the volume of assets”) on the other. It is transactions that are used to measure the flow of financing between MFIs and other sectors and the rest of the world, however, and it is from transactions that growth rates of monetary aggregates and certain counterparts are calculated.

Figure 3

Factors affecting balance sheet outstanding amounts over a reference period



As noted in Section 2.4 above, the ESA 2010 (1.66) defines a transaction as “an economic flow that is an interaction between institutional units by mutual agreement or an action within an institutional unit that it is useful to treat as a transaction, often because the unit is operating in two capacities”. The ESA 2010 (5.01) goes on to define financial transactions as “transactions in financial assets (AF) and liabilities between resident institutional units, and between them and non-resident institutional units”. Transactions would cover sales and purchases of items recorded on balance sheets at the start and end of a reporting period, as well as transactions reversed within the reference period. The ESA 2010 (5.19) further states that financial transactions are to be recorded at transaction values independently of the valuation principle in use for on-balance-sheet recording. Transaction values may not necessarily be the same as prices quoted in the market at the time of the transaction (5.21), and exclude charges, fees, etc. (5.22) which are recorded separately as payments for services.

Regulation ECB/2013/33¹¹² defines transactions as follows: “Financial transactions are computed by the ECB as the difference between stock positions at end-of-month reporting dates, from which the effect of changes that arise due to influences other than transactions is removed”. Financial transactions are therefore derived by the ECB, as explained in further detail in Section 7.2 below, from input received from NCBs, which include data on:

- outstanding amounts, as collected from reporting agents;
- price revaluation adjustments on securities (issued or held by MFIs), equity, non-financial assets, capital and reserves, remaining assets and liabilities;
- loan write-offs/write-downs, as collected from reporting agents;
- reclassification adjustments, as derived by the NCBs using available information.

Revaluation adjustments are typically reported directly by MFIs in relation to at least a minimum set of items covering the write-offs and write-downs on loans and the price revaluation of securities. With regard to the price revaluation of securities, NCBs can approach reporting agents in two distinct ways. One approach is to allow reporting agents to report directly observed transactions, from which NCBs derive revaluation adjustments to be transmitted (on an aggregated basis) to the ECB. Section 5.2 describes the two methods for direct reporting of transactions, the transaction method and the balance sheet method. The alternative is to allow MFIs to report revaluation adjustments for securities, as explained in Section 5.3. NCBs also transmit price revaluation adjustments for certain items specific to their balance sheet, namely gold and gold receivables, and receivables from the IMF. Price revaluation adjustments on non-marketable financial assets and liabilities (namely currency, deposits and loans) are not collected, however, as they do not apply to these items since they are recorded at nominal value on the balance sheet. There are specific reporting requirements relating to the transmission of revaluation adjustments in respect of loan write-offs/write-downs and write-downs at the time of a loan transfer or sale (see Section 5.4 for further details).

Reclassification adjustments comprise any change in the balance sheet of the MFI sector that arises as a result of changes in the MFI reporting population, corporate restructuring, reclassification of counterparties and of assets and liabilities, the (partial) correction of reporting errors and the introduction of new statistical concepts or definitions, all of which give rise to breaks in the series and hence affect the comparability of successive end-of-period levels. NCBs compile data on reclassification adjustments in accordance with Guideline ECB/2014/15 using supervisory information, plausibility checks, ad hoc enquiries (e.g. related to outliers), information on joiners and leavers of the reporting population and any other source available to them (including other national statistical requirements), and

¹¹² Regulation (EU) No 1071/2013 of the European Central Bank of 24 September 2013 concerning the balance sheet of the monetary financial institutions sector (recast) (ECB/2013/33) (OJ L 297, 7.11.2013, p. 1).

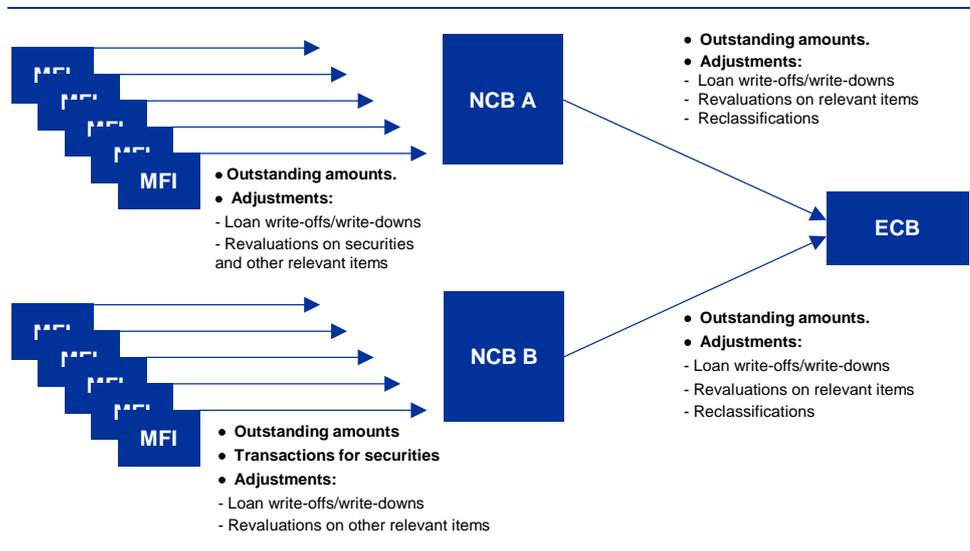
report them to the ECB. Annex IV to Guideline ECB/2014/15 contains specific guidance on the treatment of certain types of reclassifications. In principle, as a minimum NCBs send information on all reclassification adjustments exceeding €50 million. Where developments give rise to reclassification adjustments across national frontiers, NCBs may need to collaborate to ensure consistent treatment throughout the euro area. The compilation principles for reclassification adjustments are reviewed in Sections 5.5, 5.6 and 5.7, and include the treatment of euro area enlargements, which may be seen as a special type of reclassification.

Exchange rate adjustments are detailed in Section 5.8. This section covers proxies for valuation effects arising from exchange rate fluctuations that are calculated by the ECB, unless provided by NCBs (in cases where more detailed information is available at national level, thus leading to better estimations).

Detailed numerical examples are included at the end of each related section for ease of reference.

The following flow chart depicts the data flow from individual reporters to NCBs, and from NCBs to the ECB, with NCB A receiving revaluation adjustments for securities from MFIs and NCB B receiving transactions data from MFIs.

Figure 4
Flow of data



5.2 Revaluation adjustments: direct reporting of transactions in securities by MFIs and the derivation of revaluation adjustments

Where reporting agents are allowed to directly report transactions in securities, they may do so following one of two distinct methods: the transaction method or the balance sheet method. Each method may give different results and may affect the allocation of changes in M3 among counterparts. The two methods are also relevant for the use of MFI balance sheet data in financial accounts, which are constructed in line with the ESA 2010 principles (see Section 8.2). The methods are described in the following sections.

5.2.1 Transaction method versus balance sheet method

Transaction method

The transaction method records all sales and purchases of items held on balance sheets at the start and/or end of a reporting period, as well as all transactions reversed within the reference period. This method requires the flow to be valued at the transaction value, which is normally the market value of the securities on the transaction date in accordance with the ESA 2010.

The transaction method may make it difficult to relate recorded transactions in some categories to developments in reporting MFIs' balance sheets, however. This is because recorded transactions will include purchases that are reversed during the period and whose effects are therefore not visible in the end-of-month balance sheet positions for the securities portfolio. Transactions may also be valued at different prices to those at which the relevant securities are valued on the balance sheet (where they actually appear on the balance sheet), since MFIs report transactions at transaction value but will still follow national practice for valuing securities when it comes to balance sheet outstanding amounts.

Balance sheet method

The balance sheet method records all sales and purchases of items held on balance sheets at the start and/or end of a reporting period, but not transactions reversed within the reference period.

Under the balance sheet method, the sale during the month of any securities held on the balance sheet at the end of the previous month is deemed to have taken place at the price at which the securities were recorded on the previous month's balance sheet, irrespective of the price at which the sale actually took place. Similarly, the purchase during the month of any securities retained on the balance sheet at the end of the current month is deemed to have taken place at the price at which the securities are recorded on the current month's balance sheet. Therefore, if securities are carried on balance sheets at current market prices, sales and purchases will be recorded at the market prices on the previous and current balance sheet dates

respectively, although the transactions may have taken place at other market prices. Similarly, if securities are carried at their nominal value, sales and purchases will also be recorded at their nominal value. In addition, if securities are carried at their acquisition price, a sale will be recorded at the price originally paid no matter how long ago, while the purchase of a security will be recorded at the price paid for it, which will also be its carrying value on the end-of-period balance sheet.

The balance sheet method does not record transactions reversed during the reference period. It includes only those transactions that influence balance sheet positions (e.g. sales of securities that were on the previous balance sheet and purchases of securities that are retained on the current balance sheet date), recorded at the value at which they affect the balance sheet. If a security held on the opening balance sheet is sold and subsequently repurchased and retained, this is considered to be an entirely new purchase.

5.2.2 Advantages and disadvantages of each method

The direct recording of transactions via the transaction method allows total net transactions measured at market value to be derived. This is in line with the ESA 2010 and consistent with other statistics such as financial accounts and the balance of payments. It does complicate the comparison of transactions with balance sheet outstanding amounts, however, and is therefore not ideal for the purposes of calculating growth rates, as operations that have no link to end-of-period outstanding amounts are included.

The lack of harmonisation of valuation rules across the euro area and the fact that even the same reporting institution may use different valuation rules to value different portfolios supports the use of the balance sheet method, which provides a closer link between statistics on outstanding amounts and transactions and is therefore a better basis for calculating growth rates reflecting only transactions with an impact on end-of-period outstanding amounts. The balance sheet method omits an important element of transactions, however, namely those undertaken and then reversed during the reference period. It therefore departs from the definition of transactions in the ESA 2010, leading to possible inconsistencies with other statistics.

5.2.3 Examples of the direct recording of transactions and the derivation of revaluation adjustments

Example E below provides a numerical illustration of the transaction method and balance sheet method for the direct recording of transactions in securities when valued at market prices. Example F illustrates the transaction method and balance sheet method for the direct recording of transactions in securities when valued at historic cost. Example G then outlines the differing revaluation adjustments that are derived from each method.

Example E

Securities carried at market value

Suppose that, during the reference month of February, the security portfolio of an MFI comprises four bonds (A, B, C and D respectively). For the sake of simplicity the bonds are assumed to be euro-denominated, meaning that no exchange rate-related effects arise, and to have the same market price evolution as shown below.

On 31 January the MFI holds one bond A and one bond B, each of which has a market price on that date of 99. Both bonds were bought at 98 on 15 January. While bond A is kept on the balance sheet until the end of the reference period, bond B is sold on 20 February at 102. In addition, on 10 February the MFI buys one bond C at 101 and one bond D at 101. While bond D is kept on the balance sheet until the end of the period, bond C is sold on 20 February at 102. On 28 February, therefore, the MFI holds one bond A and one bond D, each of which has a market price on that date of 103.

	Prices	15-Jan 98	31-Jan 99	10-Feb 101	20-Feb 102	28-Feb 103
Securities	A	BUY 1	1 IN STOCK			1 IN STOCK
	B	BUY 1	1 IN STOCK		SELL 1	
	C			BUY 1	SELL 1	
	D			BUY 1		1 IN STOCK

During the reference period the holdings of securities have therefore increased by 8, from 198 to 206, as follows:

		31-Jan	10-Feb	20-Feb	28-Feb	
Amounts outstanding	A	99			103	
	B	99				
	C					
	D				103	
		1-Open			2-Close	3-Difference=(2)-(1)
Total outstanding		198			206	8

- Transaction method at market value

Two inflows are recorded on 10 February related to the purchases of bonds C and D. The value of each transaction is 101, which is the market price of each of the securities on that date. In turn, two outflows are recorded on 20 February related to the sale of securities B and C. The transactions are each valued at 102, which represents the market price of each of the securities on that date. As above, this method requires the flow to be valued at the transaction value, which is normally the

market value of the securities on the transaction date. Overall, transactions in securities amount to -2, as follows:

Transactions		31-Jan	10-Feb	20-Feb	28-Feb	
Transaction method	A					
	B			-102		
	C		101	-102		
	D		101			
						4-Total flow
						-2

- *Balance sheet method at market value*

The transactions involving bond C (a purchase and resale within the period) are not recorded under this approach. The securities are carried on the balance sheet at market value, so the prices used for the valuation of the individual transactions would then be 99 for the sale of bond B (because this was its balance sheet value on the end-January balance sheet) and 103 for the purchase of bond D (because this is its balance sheet value on 28 February). The method would then record an outflow of 99 related to the disposal of bond B and an inflow of 103 related to the purchase of bond D. Overall, transactions in securities amount to 4, as follows:

Transactions		31-Jan	10-Feb	20-Feb	28-Feb	
Balance sheet method	A					
	B			-99		
	C					
	D		103			
						4-Total flow
						4

Example F

Securities carried at historic cost

On 31 January the MFI records on its balance sheet one bond A and one bond B, each at a value of 98. On 28 February the MFI still carries bond A at 98, while bond D is recorded at 101, its acquisition cost. During the reference period the holdings of securities have therefore increased by 3, from 196 to 199, as follows:

		31-Jan	10-Feb	20-Feb	28-Feb	
Amounts outstanding	A	98			98	
	B	98				
	C					
	D				101	
		1-Open			2-Close	3-Difference=(2)-(1)
Total outstanding		196			199	3

- *Transaction method at historic cost*

The derivation of transactions under the transaction method is independent of the valuation criterion applied to record securities on the balance sheet. In particular, transactions are valued at their own transaction price, which is normally the market value of the securities on the transaction date, in line with the ESA 2010 methodology. In addition, all acquisitions and disposals are considered, including purchases reversed within the reference period.

Two inflows are recorded on 10 February related to the purchases of bonds C and D. The value of each transaction is 101, which is the transaction price of each of the securities on that date. In turn, two outflows are recorded on 20 February related to the sale of securities B and C. The transactions are each valued at 102, which represents the transaction price of each of the securities on that date. Overall, transactions in securities amount to -2, as follows:

Transactions		31-Jan	10-Feb	20-Feb	28-Feb	
Transaction method	A					
	B			-102		
	C		101	-102		
	D		101			
					4-Total flow	-2

- *Balance sheet method at historic cost*

Suppose now that securities are valued on the balance sheet at historic cost. The prices used for the valuation of the individual transactions would then be 98 for the sale of bond B (because this was its balance sheet value on the end-January balance sheet) and 101 for the purchase of bond D (because this is the balance sheet value on 28 February). The method would then record an outflow of 98 related to the disposal of bond B and an inflow of 101 related to the purchase of bond D. Overall, transactions in securities amount to 3, as follows:

Transactions		31-Jan	10-Feb	20-Feb	28-Feb	
Balance sheet method	A					
	B			-98		
	C					
	D		101			
						4-Total flow
						3

Example G

Deriving revaluation adjustments to be transmitted to the ECB

Where MFIs report transactions directly, for computational reasons NCBs nevertheless use the transactions data to derive a valuation adjustment to be transmitted to the ECB. In particular, ignoring the effect of reclassifications and exchange rate adjustments, price revaluation adjustments would be obtained as the difference between the change in outstanding amounts and transactions. A further example based on the cases illustrated above may help to explain this process.

Suppose that securities are carried on the balance sheet at market value; the difference in outstanding amounts over the reference period then amounts to 8. A distinction can be made between the following two cases:

- If transactions are reported using the transaction method, transactions amount to -2 (Example E), so the NCB derives as a residual a revaluation adjustment of 10:

3-Difference=(2)-(1)	
8	
4-Total flow	5-Revaluation=(3)-(4)
-2	10

- If transactions are reported using the balance sheet method, transactions amount to 4 (Example E), so the NCB derives as a residual a revaluation adjustment of 4:

3-Difference=(2)-(1)	
8	
4-Total flow	5-Revaluation=(3)-(4)
4	4

Suppose now that those securities are recorded on the balance sheet at historic cost; the difference in outstanding amounts over the reference period then amounts to 3. A distinction can be made between the following two cases:

- If transactions are reported using the transaction method, transactions amount to -2 (Example F), so the NCB derives as a residual a revaluation adjustment of 5:

3-Difference=(2)-(1)	
3	
4-Total flow	5-Revaluation=(3)-(4)
-2	5

- If transactions are reported using the balance sheet method, transactions amount to 3 (Example F), so the NCB derives as a residual a revaluation adjustment of 0:

3-Difference=(2)-(1)	
3	
4-Total flow	5-Revaluation=(3)-(4)
3	0

These examples show that where transactions are reported by MFIs, the NCB will derive (by residual) different estimates of the revaluation adjustment depending on whether the MFI reports transactions using the transaction method or the balance sheet method, and also depending on the practice it follows for valuing balance sheet outstanding amounts. The following section provides an interpretation of the revaluation adjustments obtained in the various cases in terms of gains/losses on holdings of securities.

5.2.4 Interpreting revaluation adjustments under direct recording of transactions

The two methods have different implications in terms of the relationship between the price revaluation adjustments they imply and gains/losses on holdings of securities. In particular, while the revaluation adjustments implied by the transaction method are conceptually equivalent to (realised and unrealised) gains/losses on holdings of securities, the balance sheet method delivers revaluation adjustments that cover the changes in the carrying value of securities held throughout the reference period only (see Example J for the mathematical derivation).

In general, the magnitude of the differences between the two methods depends on a number of factors. The higher the turnover in securities, the larger the number of purchases reversed within the reference period that are omitted under the balance sheet method. The length of the reference period has a similar impact, namely that the longer the period, the more likely it is that a purchase will be reversed within that

period. For instance, if a security is purchased in January and sold in February, the transactions constitute a reversed purchase for quarterly statistics, but not for monthly statistics. Volatility in market prices and the valuation methods used in the balance sheet also play a role, with valuation at market prices usually reducing the differences.

The two approaches also have different implications for monetary statistics, as they may attribute a change in M3 to different counterparts. Example H illustrates these implications, while Section 7.1 discusses the consolidated MFI balance sheet and M3 and its counterparts in detail.

Example H Interpreting revaluation adjustments

Suppose that, within the reference period, MFIs buy corporate bonds from households for 100 and sell them back to households for 105. M3 must fall, both under the transaction method and under the balance sheet method, by the net amount of the transactions (5), as households reduce cash or deposits by 5. The two methods produce different results with regard to the counterparts of M3, however.

The transaction method records a withdrawal of credit by MFIs to non-financial corporations (-5 in the counterpart “credit to euro area residents”), because in net terms MFIs have sold 5 of corporate bonds. But MFIs have not in fact withdrawn credit from non-financial corporations: the amount of funds available to the non-financial corporations sector is unchanged.

By contrast, the balance sheet method records no asset transaction to match the fall in M3, because the trades in corporate bonds took place within the reference period. By default, the counterpart for the decline in M3 appears in the residual “other counterparts” category (i.e. it leads to a compensating increase in the position “capital and reserves” via the profit and loss account, or in “remaining liabilities” depending on the accounting treatment).

For monetary analysis, i.e. the analysis of M3, credit and other counterparts of M3, the balance sheet method proves more helpful (or less misleading) in this case than the transaction method.¹¹³ As mentioned above, the two methods also have different implications for the financial accounts when MFI balance sheet statistics are used as an input. In brief, the transaction method is consistent with the conceptual basis of the financial accounts whereas the balance sheet method is not. These linkages are clarified in Section 8.2.

¹¹³ The transaction method may be applied, however, if one of the following conditions is met: (i) market valuation is the only, or at least the most commonly used, method of valuing holdings of securities; or (ii) the transaction method proves to be less costly to implement than the balance sheet method. Even so, the transaction method is applied only if it provides data of a sufficiently high quality and within the necessarily tight deadlines required for compiling monetary statistics.

When MFIs record transactions directly and report these to NCBs, NCBs derive revaluation adjustments to be transmitted (on an aggregated basis) to the ECB as a residual from the change in balance sheet outstanding amounts, corrected for the impact of reclassification adjustments, and from reported transactions.¹¹⁴ As mentioned above and outlined in Example I below, the revaluation adjustments indirectly obtained under the transaction method equal the (realised and unrealised) gains/losses on the security holdings, while the balance sheet method only covers the change in the carrying value of securities held throughout the period. NCBs then transmit to the ECB the same consistent set of data for outstanding amounts, reclassifications and revaluation adjustments, from which the ECB derives transactions data.

Example I

Revaluation adjustments linkage to gains/losses and carrying values

Suppose that securities are carried on the balance sheet at market value (Example E above). A distinction can be made between the following two cases:

- If transactions are reported using the transaction method, the imputed revaluation adjustments amount to 10, as discussed above. This is the sum of the unrealised gains on bonds A and D (4 and 2 respectively, making a total of 6) and the realised gains on B and C (3 and 1 respectively, making a total of 4):

Transactions		31-Jan	10-Feb	20-Feb	28-Feb		Revaluation components
Transaction method	A						4
	B			-102			3
	C		101	-102		4-Total flow 5-Revaluation=(3)-(-4)	1
	D		101			-2 10	2

- If transactions are reported using the balance sheet method, the imputed revaluation adjustments amount to 4, as discussed above. This is equivalent to the change in the carrying value of bond A, which is held throughout the period:

Transactions		31-Jan	10-Feb	20-Feb	28-Feb		Revaluation components
Balance sheet method	A						4
	B			-99			0
	C					4-Total flow 5-Revaluation=(3)-(-4)	0
	D		103			4 4	0

¹¹⁴ The change in the outstanding amounts is also to be corrected for changes in exchange rates. NCBs are required to do this on the basis of internal estimates of the adjustments.

Suppose now that securities are recorded on the balance sheet at acquisition price (Example F above). A distinction can be made between the following two cases:

- If transactions are reported using the transaction method, the imputed revaluation adjustments amount to 5, as discussed above. This is the sum of the realised gains on B and C (4 and 1 respectively, making a total of 5):

Transactions		31-Jan	10-Feb	20-Feb	28-Feb		Revaluation components
Transaction method	A						0
	B			-102			4
	C		101	-102		4-Total flow 5-Revaluation=(3)-(4)	1
	D		101			-2 5	0

- If transactions are reported using the balance sheet method, the imputed revaluation adjustments amount to 0, as discussed above. This is because the carrying value of bond A, which is held throughout the period, does not change over the reference period:

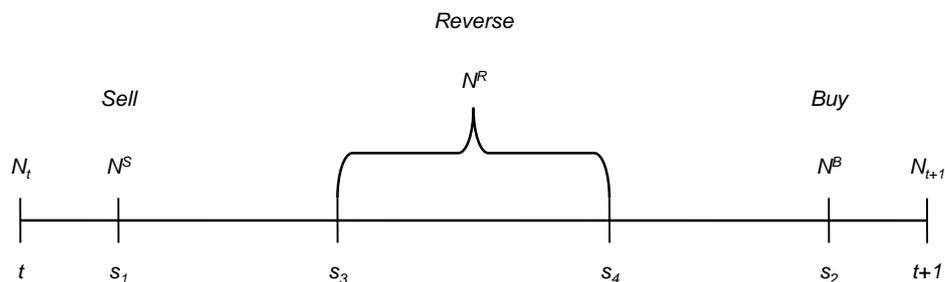
Transactions		31-Jan	10-Feb	20-Feb	28-Feb		Revaluation components
Balance sheet method	A						0
	B			-98			0
	C					4-Total flow 5-Revaluation=(3)-(4)	0
	D		101			3 0	0

Example J

Derivation of revaluation adjustments under direct recording of transactions

This example provides a detailed overview of the mathematical aspects of the derivation of revaluation data in the context of MFI balance sheet statistics under direct recording of transactions. In particular, it shows that the revaluation adjustments implied by the transaction method are equivalent to the (realised and unrealised) gains/losses on holdings of securities, while the balance sheet method delivers revaluation adjustments that cover the changes in the carrying value of securities held throughout the reference period only.

Suppose that an MFI trades only in one security S , and denote by N_t the number of such securities at time t . Between t and $t+1$ the MFI sells N^S securities at time s_1 and purchases N^B securities at time s_2 which are then kept until time $t+1$. In addition, a number N^R of securities are purchased and sold back during the period at times s_3 and s_4 respectively.



If N^K denotes the number of securities that are kept on the balance sheet between t and $t+1$, it is clear that $N_t = N^K + N^S$ and, similarly, $N_{t+1} = N^K + N^B$. Now let p_t represent the value at which securities S are carried on the balance sheet at time t , and let p'_t be the corresponding market value. Without loss of generality, assume that all securities are recorded using the same valuation criterion and that the same carrying value applies to each of the securities within N^K , N^S and N^B (p_t^K , p_t^S and p_t^B denoting the corresponding carrying values). The outstanding amounts S_t of the securities holdings satisfy the following equations:

$$S_t = p_t^K \times N^K + p_t^S \times N^S \quad [5.2.1]$$

$$S_{t+1} = p_{t+1}^K \times N^K + p_{t+1}^B \times N^B \quad [5.2.2]$$

As discussed in the main text, ignoring the effect of reclassifications and exchange rate adjustments (without loss of generality), price revaluation adjustments R_{t+1} at time $t+1$ under direct recording of transactions can be obtained as the difference between the change in outstanding amounts between t and $t+1$ and the estimated transactions T_{t+1} :

$$R_{t+1} = (S_{t+1} - S_t) - T_{t+1} \quad [5.2.3]$$

A distinction can therefore be made between two cases depending on the method used to record transactions. Suppose first that transactions are derived using the transaction method, then:

$$T_{t+1} = p'_{s_2} \times N^B - p'_{s_1} \times N^S + (p'_{s_4} - p'_{s_3}) \times N^R \quad [5.2.4]$$

Substituting equations [5.2.1], [5.2.2] and [5.2.4] into [5.2.3] yields:

$$R_{t+1} = (p_{t+1}^K - p_t^K) \times N^K + (p_{t+1}^B - p'_{s_2}) \times N^B + (p'_{s_1} - p_t^S) \times N^S + (p'_{s_4} - p'_{s_3}) \times N^R \quad [5.2.5]$$

The first two terms represent the unrealised gains/losses related to changes in the valuation of, respectively, securities that were held from time t to $t+1$ (change in carrying value multiplied by the number of securities), and securities that were bought during the period (carrying value at time $t+1$ minus cost, multiplied by the number of securities). In turn, the last two terms represent the realised gains/losses related to, respectively, securities held at time t but sold during the period (selling

price minus carrying value at time t , multiplied by the number of securities), and securities traded (reversed purchases) during the period (selling price minus cost, multiplied by the number of securities).

It therefore follows that price revaluation statistics obtained by residual under direct derivation of transactions using the transaction method are conceptually equivalent to the gains/losses on MFIs' security holdings during the reference period.¹¹⁵

If transactions are derived using the balance sheet method, however, the derivation yields different results, as purchases that are reversed during the period are not taken into account and only the values at which securities are recorded on the balance sheet are relevant for the valuation of sales and purchases. In particular:

$$T_{t+1} = p_{t+1}^B \times N^B - p_t^S \times N^S \quad [5.2.6]$$

Substituting equations [5.2.1], [5.2.2] and [5.2.6] into [5.2.3] yields:

$$R_{t+1} = (p_{t+1}^K - p_t^K) \times N^K \quad [5.2.7]$$

Hence, unlike the revaluation adjustments implied by the transaction method, the balance sheet method only reflects the change in the carrying value of securities held throughout the period.

5.3 Revaluation adjustments: indirect reporting of transactions through reporting price revaluation adjustments on securities

For the most part, however, MFIs report revaluation adjustments rather than transactions to NCBs. Where transactions in securities are not reported by MFIs, Regulation ECB/2013/33 requires MFIs to instead provide data on price revaluation adjustments, intended to capture the price-related effects on the outstanding amounts of their holdings of securities recorded on the balance sheet. MFIs report monthly revaluation adjustments in accordance with the minimum requirements set out in Table 1A in Part 4 of Annex I. MFIs must report valuation adjustments for at least the following instrument categories on the assets side: debt securities held (totals and broken down into securities issued by domestic and other euro area MFIs and general government), investment fund shares (broken down into MMF and non-MMF investment fund shares) and equity (totals and broken down into shares and other equity issued by domestic and other euro area MFIs). NCBs may request

¹¹⁵ It should be stressed, however, that gains/losses implied by MFI balance sheet statistics may still differ from gains/losses effectively imputed in the income statement, as the valuation criteria may differ. For example, in line with the general reporting instructions for MFI balance statistics, many NCBs require credit institutions to value listed securities (i.e. securities quoted on a stock exchange for public trading) classified under IFRS as "held to maturity" and "loans and receivables" at market price for MFI balance sheet purposes, while the income statement follows the general IFRS requirement to value these items at amortised cost.

valuation adjustments for more categories, however, and must in any case provide further information on assets from other available sources if there are significant valuation effects on MFI balance sheets not covered in the reporting from MFIs themselves.¹¹⁶

However, Regulation ECB/2013/33 does not prescribe how reporting agents should calculate revaluation adjustments on holdings of securities: what matters is that they should be consistent with the valuation applied to securities on the balance sheet. In practice, MFIs have various options when deriving price revaluation adjustments, as discussed in the following section.

5.3.1 Price-related gains/losses on holdings versus change in the carrying value of securities

Price-related (realised and unrealised) gains/losses on holdings of securities

In particular, the adjustments equal the realised gains/losses of the MFI on sales of securities, including purchases reversed during the period (the selling price minus the carrying value at the beginning of the period or, in the case of purchases reversed during the period, minus the purchase price, each multiplied by the corresponding number of securities), plus the unrealised gains/losses on securities that are carried on the balance sheet throughout the period (change in carrying value multiplied by the number of securities) or that were purchased during the period and are still held at the end of the period (carrying value at the end of the reference period minus the purchase price, multiplied by the number of securities). The calculations exclude the effects of changes in exchange rates. This method relies on the availability of detailed data on individual transaction prices and on the value at which securities are carried on the balance sheet.

The price revaluation adjustments obtained under this option are equivalent to the application of the transaction method for the derivation of transactions.

Change in the carrying value of securities held throughout the period

Under this approach, the adjustments equal the changes in the valuation of the securities that are kept on the balance sheet over the reference period multiplied by their number, and therefore do not include any sales or purchases that take place during the period. The calculations exclude the effects of changes in exchange rates. This method only requires data on the value at which securities are carried on the balance sheet. The price revaluation adjustments obtained under this option are equivalent to the application of the balance sheet method for the derivation of transactions.

¹¹⁶ NCBs may also request valuation adjustments on the liabilities side. On this point, Part 4 of Annex I to Regulation ECB/2013/33 states that “No minimum reporting requirement is established for the liability side of the balance sheet. However, if valuation practices applied by reporting agents to debt securities issued result in changes to their end-period outstanding amounts, NCBs are permitted to collect data relating to such changes. Such data are reported as “other revaluation” adjustments.”

In most cases, MFIs apply the balance sheet method when reporting price revaluation data.¹¹⁷ As described above, in this case the adjustments will depend only on the method used by the reporting MFI to value securities on its balance sheet. If, for example, it has no transactions in the securities concerned in the relevant month, and reports holdings of debt securities at market prices on the balance sheet date, balance sheet outstanding amounts will be fully affected by the change in price. If it reports holdings at historic cost, the change in market prices will have no impact on the balance sheet. If it reports holdings at the lower of market price and historic cost, there may be a valuation effect depending on where the market price stands in relation to the acquisition price. The revaluation adjustments reported therefore depend not only on the movement in prices between the opening and closing balance sheet dates but also on the valuation method used.

NCBs aggregate the price revaluation adjustments they receive from their reporting agents and transmit them to the ECB, which then calculates transactions as a residual, after taking account of reclassifications and any other non-transactional effects on balance sheet outstanding amounts, and exchange rate changes. When reporting agents follow the transaction method described above, transactions estimated using this approach are consistent with the ESA 2010. In most cases, however, MFIs follow the balance sheet method, meaning that the estimated transactions exclude any trades reversed within the reference period and also do not fully reflect valuation changes in securities sold or purchased during the period. As noted earlier, this outcome is not consistent with the ESA 2010, although it may better facilitate monetary analysis.

Example K

Relationship between the derivation of price revaluation adjustments and direct recording of transactions

As mentioned above, Regulation ECB/2013/33 does not state in detail which method should be followed by reporting agents to directly derive revaluation data on holdings of securities. One option is to report price-related (realised and unrealised) gains/losses on holdings of securities, in line with equation [5.2.5] in Example J. This is equivalent to obtaining the adjustments indirectly by recording transactions with the transaction method. This approach is difficult to implement, however, because it relies on the availability of detailed price data on individual transactions and on the value at which securities are carried on the balance sheet. In most cases reporting agents use equation [5.2.7] to derive price revaluation adjustments, which then match the changes in the carrying value of securities held throughout the period. This is equivalent to deriving transactions data using the balance sheet method. Example G above provides detailed guidance on how revaluation adjustments can be derived directly on the basis of [5.2.5] or [5.2.7].

¹¹⁷ It is also accepted that reporting agents – under certain conditions – derive price revaluations by applying the changes in valuation to the number of securities carried on the balance sheet at the beginning or end of the period, whichever is the lower. This is acceptable if it reduces reporting costs. See Example K for further details.

Although simpler than [5.2.5], the application of equation [5.2.7] can nevertheless be burdensome for reporting agents. It is therefore accepted that whenever securities of the same type are recorded at market value (or following any other procedure that guarantees the same recording value for all securities), price revaluations may be derived by applying the change in the carrying value to the lower of the two balances at t and $t+1$:

$$R_{t+1} = (p_{t+1}^K - p_t^K) \times \min(N_t, N_{t+1}) \quad [5.3.1]$$

This clearly represents a deviation from the definition used in the balance sheet method, especially at a time of high turnover, i.e.: $N^K \leq \min(N_t, N_{t+1})$. Nevertheless, it is considered acceptable in view of the potential cost savings for reporting agents. Where securities are recorded at historic cost or the lower of purchase or market value, this simplified method cannot always be applied as the valuation rule could imply that similar securities are recorded at different prices.

5.3.2 The case of MMFs

In accordance with Part 3, Section 3 of Annex IV to Guideline ECB/2014/15, the calculation of price revaluation adjustments on MMF assets follows the common procedure applicable to all MFIs. On the liabilities side, positive changes in the value of shares/units have traditionally been considered equivalent to the payment (as opposed to the accrual) of interest on deposits, implying that the counterpart of the revaluations on the assets side would not be “money market fund shares/units” but “remaining liabilities”. A decline in the price of MMF shares/units as a result of losses on the assets side cannot be compared to interest payments, however. While there has been a relative shift over recent years towards MMFs with variable (as opposed to constant) net asset values, it is rare for MMFs to experience significant changes in the value of their assets, and therefore in practice also in the value of their shares/units issued.¹¹⁸

With regard to the treatment of exchange rate changes in the context of MMF shares/units, MMFs may hold assets denominated in foreign currency whose equivalent amounts in euro may be affected by changes in exchange rates. The change in shares/units on the liabilities side of their balance sheet is attributed to non-resident holdings of these instruments.¹¹⁹ The effect of exchange rate changes on the outstanding value of MMF shares/units through its effect on assets held by MMFs therefore has no impact on monetary aggregates (outstanding amounts or

¹¹⁸ The net asset value (NAV) of an investment fund is the value of its assets minus its liabilities, excluding investment fund shares. MMFs with constant NAVs aim to maintain an unchanging NAV per unit or share. Variable NAV MMFs have no such explicit aim, but the variability of the NAVs is expected to be low.

¹¹⁹ The allocation of the exchange rate adjustment affecting MMF shares/units to non-resident holdings also reflects the observation that MMFs resident in the euro area which hold foreign currency denominated securities tend to be those set up by non-euro area financial institutions for non-euro area investors.

flows). See Section 7.2 for insights on the mathematical allocation of exchange rate adjustments in this special case.

5.3.3 Security-by-security reporting

While the direct reporting of transactions is allowed in the MFI balance sheet statistics framework, most reporting agents record transactions indirectly through the direct reporting of revaluation adjustments.¹²⁰ Securities data are typically compiled based on an aggregated data collection, although NCBs may collect the required statistical information on securities issued and held by MFIs on a security-by-security basis to the extent that the aggregated data can be derived in accordance with minimum statistical standards as specified in Regulation ECB/2013/33.¹²¹ In this case, transactions according to the transaction method can only be derived if the security-by-security reporting covers not only outstanding amounts data but also transactions. Similarly, when the balance sheet method is applied transactions can only be derived if in addition to the outstanding amounts of securities on a security-by-security basis, reporting agents also transmit for each security its carrying value on the balance sheet. The same principle applies for the calculation of revaluation adjustments. Under Regulation ECB/2013/33, NCBs may grant derogations in respect of the reporting of price revaluations (including complete exemption) to credit institutions who conduct security-by-security reporting provided that the information reported includes, for each security, its carrying value on the balance sheet, and for non-ISIN securities, further information on the instrument category, maturity and issuer. Security-by-security reporting and MFI balance sheet statistics are discussed in more detail in Section 8.4.

5.4 Revaluation adjustments for loan write-offs/write-downs

Like price revaluations on securities, the (full or partial) removal from the balance sheet of loans that are subject to write-offs or write-downs needs to be taken into account when deriving transactions in loans. In particular, a write-off or write-down of loans has an impact on the reported value of the outstanding amount of loans but is not related to a change in the amount of MFI financing to the economy and is not recorded as a transaction. The adjustment refers to the impact of write-offs/write-downs on the value of loans recorded on the balance sheet, and data are reported in accordance with the minimum requirements set out in Table 1A in Part 4 of Annex I to Regulation ECB/2013/33, with full sector details for loans to domestic and other euro area residents. Write-downs recognised only when loans are sold or transferred to a third party (e.g. a financial vehicle corporation) are also included where identifiable.

¹²⁰ See the *Survey of national practices regarding MFI balance sheet statistics*, ECB, November 2015. Available on the [ECB's website](#).

¹²¹ For details on the derivation of transactions when the security-by-security method is used, see also the *Manual on investment fund statistics*, ECB, December 2017, Section 8.2, available on the [ECB's website](#).

A write-off/write-down should be reported only to the extent that the action is reflected in the reported loans outstanding (see Example L). Bad debt loans which are overdue or otherwise impaired are reported in full on the balance sheet unless they have been written down/off (see also Section 4.3.9). As such, statistically recorded write-offs/write-downs cannot be interpreted as a proxy for developments in non-performing loans, as the criteria for the associated partial or full loan derecognition are subject to national GAAP. It is irrelevant whether the reporting MFI records write-offs/write-downs continuously or only at intervals, or whether a final court judgement is pending, provided that national accounting practice supports a reduction in the carrying amount of the loans due to impairment. Under IFRS 9 the gross carrying amount of a financial asset is reduced when an entity has no reasonable expectation of recovering the entire or partial amount outstanding (IFRS 9, Section 5.4.4). AnaCredit reporting also requires write-offs according to applicable accounting standards. The counterpart entry to a write-off/write-down should be in “capital and reserves”. As stated in Section 2.4 and Section 4.3.10, a write-off/write-down as a result of debt forgiveness, where mutually agreed between two institutional units, is a transaction and therefore not reported as a loan revaluation.

While loan data are to be collected in the MFI balance sheet statistical framework at nominal outstanding amounts and on a gross basis (i.e. without regard to any loan loss provisions made against them), Article 8(4) of Regulation ECB/2013/33 does allow reporting net of provisions to maintain the historical consistency of national loans series (see also Section 4.3.10). If outstanding amounts are reported net of provisions, the adjustment for loan write-offs/write-downs also reflects the changes in the level of loan loss provisions. For example, if a reporting MFI has already made a loan loss provision against the loan in question, this provision is already reflected in the reported value of the loan (and in the related adjustment), so when the final write-off/write-down takes place only the marginal change compared with the value of the provision is to be deducted from the outstanding amounts (or added to them if the provision was too high) and recorded in the related adjustment (see Example M).

Example L

Derivation of write-offs/write-downs for loans reported gross of provisions

Consider the loan portfolio of an MFI vis-à-vis non-financial corporations at time t . For the sake of simplicity, suppose that all loans are euro-denominated, so no adjustments for changes in exchange rates need to be taken into account. Between time t and $t+1$, the MFI does not provide any new loans and none of the loans outstanding at time t are paid back.

	Time (t) Outstanding stock	Transactions	Revaluation adjustment	Time (t+1) Outstanding stock
Loan portfolio	100	0	-5	95

The loan portfolio amounts to 100 at time t . At time $t+1$ some of the loans are written down and the loan portfolio falls to 95; the change in outstanding amounts is -5. The MFI then reports a revaluation adjustment of -5, so (using the notation in Example J) transactions at time $t+1$ can be estimated as:

$$T_{t+1} = -5 - (-5) = 0.$$

Note that where provisions exist against the loan, they should be adjusted as required.

Example M

Derivation of write-offs/write-downs for loans reported net of provisions

The case where loans are reported net of provisions is slightly more complicated.

	Time (t) Outstanding stock	Transactions	Revaluation adjustment	Time (t+1) Outstanding stock
Loan portfolio	98	0	-3	95
(provisions)	(2)			(5)

As in Example L above, the loan portfolio amounts to 100 at time t , but loan provisions amount to 2, so the on-balance-sheet loans amount to 98. At time $t+1$ no loans are written down or written off, but loan provisions increase by 3 so loans outstanding decreases to 95 and the change in outstanding amounts is -3. The MFI then has to report a revaluation adjustment of -3, which equals the change in loan loss provisions (with opposite sign). Hence, transactions at time $t+1$ are:

$$T_{t+1} = -3 - (-3) = 0.$$

Example N

Derivation of write-downs when loans are sold or transferred

Suppose a loan of 100 is transferred from the MFI's balance sheet at time $t+1$. A provision of 20 has already been recorded against the loan. The loan is sold for a value of 70, implying a write-down/write-off of 30 at the time of sale.

	Time (t) Outstanding stock	Transactions	Revaluation adjustment	Time (t+1) Outstanding stock
Loan portfolio	100	70	-30	0
(provisions)	(20)			(0)

Prior to the loan sale, the (simplified) balance sheet is reported as follows, reflecting the loan and related provision:

Outstanding stock at time (t)			
Assets		Liabilities	
Loan	100	Capital and reserves	100
		o/w equity	80
		o/w P&L	
		o/w provisions	20
	100		100

At time t+1 the loan is sold for 70, which is received as cash in this simplified example. As mentioned above, the counterpart to write-downs/write-offs is usually in “capital and reserves”. However, as there is already a provision of 20 against the loan, this must be taken into account and only the loss above that which is provisioned is allocated to the P&L account (although not an ECB reporting requirement, the effects on both the P&L and provision account are in effect also treated as revaluation adjustments since they do not constitute income or expenses). The balance sheet and associated revaluation adjustments should be reported as follows:

Outstanding stock at time (t+1)			
Assets		Liabilities	
Loan	0	Capital and reserves	70
Cash	70	o/w equity	80
		o/w P&L	-10
		o/w provisions	0
	70		70

Revaluation adjustment at time (t+1)			
Assets		Liabilities	
Loan	-30	Capital and reserves	-30
Cash		o/w equity	
		o/w P&L	-10
		o/w provisions	-20
	-30		-30

The only transactions evident are a +70 transaction in cash and -70 in loans. Further considerations for the reporting of loans transferred/sold are discussed in Section 4.3.11.

5.5 Reclassification adjustments for changes in the composition of the reporting sector

Changes in the composition of the reporting sector may give rise to the transfer of business across economic sector boundaries. Such transfers do not represent transactions and are therefore treated as an adjustment in “reclassification adjustments”. An institution that joins the reporting sector may transfer business into the sector, whereas an institution leaving the reporting sector may transfer business out of the sector. Example O below shows the implications of the suggested treatment. Where a joining institution starts its business from scratch after joining the reporting sector, however, this represents a financial transaction that is not removed from statistical data.¹²² Similarly, where a leaving institution decreases its activities prior to leaving the reporting sector, this is captured as a transaction in the statistical data.

The impact of a transfer of business into/out of the reporting sector on the sector’s outstanding assets and liabilities depends on whether the institution is a full or tail reporter. An institution joining the MFI sector as a full reporter will usually report its first data at the end of the month in which it joins or at the end of the same quarter. Similarly, the data of a full reporter leaving the reporting sector are removed at the time of its departure. To the extent that the first/last assets and liabilities reported are transferred into/out of the reporting sector, an adjustment may be made in the reporting period in which this transfer occurs. Where institutions join or leave as reporters in the reporting tail, the impact on the asset and liability items depends on the grossing-up procedure used.

Most of the information needed to make an adjustment for changes in statistical coverage is usually available within the statistical reporting system. However, it may be necessary for NCBs to collect ad hoc information from institutions entering the reporting sector to determine whether the first reported assets and liabilities have been transferred from outside the reporting sector or built up after entry. Similar information is collected from institutions leaving the reporting sector.

The net effect of the joiners or leavers on the aggregated assets and liabilities of the reporting sector is calculated by aggregating the first assets and liabilities reported by new entrants and the last assets and liabilities reported by leavers and, for each item, taking the difference between the two. This net figure is entered under “reclassification adjustments”. In certain circumstances there may be an effect on counterparty reporting, and this effect must also be included in the adjustments, in this case as a change in sector. For instance, if an MFI surrenders its authorisation but continues to operate as an OFI funded through the interbank market, the recorded rise in MFI lending to OFIs requires an adjustment (as it is a change in the classification of a counterparty sector).

¹²² This criterion applies in borderline cases. For example, the establishment of a new bank that takes over the operations previously carried out by a representative office on behalf of a non-resident bank gives rise to a transaction that is not removed when compiling transactions data.

Example O

Derivation of reclassification data when an OFI joins the MFI population

This example shows the impact of a new institution joining the MFI population. The discussion is limited to the point of joining and does not take into account the activities of the institution after it has joined the MFI population (when operations will be treated as transactions). For the sake of simplicity, it is also assumed that the joining institution does not have cross-positions with the MFI sector (otherwise the change in the MFI population would also lead a change in the classification of counterparties; the impact of such changes is discussed in Example U below).

A financial corporation engaged in lending (OFI) to domestic households is granted a banking licence and therefore joins the MFI population. Suppose that its balance sheet is as follows:

OFI			
Assets		Liabilities	
Loans and deposits	100	Loans and deposits	70
o/w loans to households	100	Capital and reserves	30
Total assets	100	Total liabilities	100

From the moment the OFI joins the MFI population, all its assets and liabilities are included in the aggregated data of the MFI sector, resulting in changes in outstanding amounts which are recorded as reclassifications:

MFI sector – amounts outstanding before the join			
Assets		Liabilities	
Loans and deposits	1,000	Loans and deposits	800
o/w loans to households	900	Capital and reserves	200
Total assets	1,000	Total liabilities	1,000

MFI sector – amounts outstanding after the join			
Assets		Liabilities	
Loans and deposits	1,100	Loans and deposits	870
o/w loans to households	1,000	Capital and reserves	230
Total assets	1,100	Total liabilities	1,100

MFI sector – changes in amounts outstanding			
Assets		Liabilities	
Loans and deposits	100	Loans and deposits	70
o/w loans to households	100	Capital and reserves	30
Total assets	100	Total liabilities	100

MFI sector – Reclassifications			
Assets		Liabilities	
Loans and deposits	100	Loans and deposits	70
o/w loans to households	100	Capital and reserves	30
Total assets	100	Total liabilities	100

5.6 Reclassification adjustments for changes in the structure of the MFI sector

Changes in the structure of the MFI sector arise in the context of intragroup reorganisations or mergers, acquisitions and divisions. These corporate restructuring operations typically lead to changes in the valuation of financial assets and liabilities; revaluation adjustments are entered to reflect these changes and thus allow transactions to be correctly derived. In addition, the operations often give rise to a transfer of financial assets and liabilities from the balance sheet of one institutional unit to another (change in ownership). Accounting for these asset transfers is not always easy, but the ESA 2010 definition of transactions mentioned above provides a good basis for addressing the various cases. In broad terms, the boundary for treating transfers of assets as transactions is defined by the existence of two separate institutional units acting by mutual agreement. If the transfers occur as a result of the creation or disappearance of an institutional unit, however, they should be treated as reclassifications. See also the ESA 2010 on “Changes in sector classification and institutional unit structure” (6.17 – 6.20).

5.6.1 Intragroup reorganisation – transfer of assets

Suppose first that as part of an intragroup reorganisation, two corporations of the group undergo restructuring operations and transfers of assets take place. Since these operations usually involve separate institutional units acting by mutual agreement, they represent transactions. Examples P and Q below help clarify the implications of this suggested treatment in two specific cases: when a financial corporation engaged in lending (classified in the OFI sector) transfers loans to an MFI of the same financial group which is resident in the same territory, and when a foreign MFI subsidiary transfers securities to the parent MFI.

Example P

Intragroup reorganisation: an OFI transfers loans to an MFI

An MFI and a financial corporation engaged in lending (OFI) to domestic households are resident in the same territory and belong to the same financial group. Suppose that their balance sheets are as follows:

MFI			
Assets		Liabilities	
Loans and deposits	100	Loans and deposits	80
o/w loans to households	80		
		Capital and reserves	20
Total assets	100	Total liabilities	100

OFI			
Assets		Liabilities	
Loans and deposits	20		
o/w loans to households	20		
		Capital and reserves	20
Total assets	20	Total liabilities	20

As part of an intragroup reorganisation, it is decided to transfer part of the loan portfolio from the OFI to the MFI (for a total amount of 10). In exchange for the loans, the OFI then has a claim on the MFI for the corresponding amount. After the operation takes place, the balance sheets are as follows:

MFI			
Assets		Liabilities	
Loans and deposits	110	Loans and deposits	90
o/w loans to households	90		10
		Capital and reserves	20
Total assets	110	Total liabilities	110

OFI			
Assets		Liabilities	
Loans and deposits	20		
o/w loans to households	10		
o/w deposit with the MFI	10	Capital and reserves	20
Total assets	20	Total liabilities	20

The asset transfer and its counterpart are both recorded as transactions. As a result of this operation, loans to households provided by the domestic MFI sector show a positive change of 10.

Example Q

Intragroup reorganisation: a foreign subsidiary transfers securities to the parent MFI

An MFI has a foreign subsidiary (also an MFI). For the sake of simplicity, suppose that the subsidiary is fully owned by the parent MFI (the capital of the subsidiary MFI appears under holdings of “equity” on the balance sheet of the parent MFI). The balance sheets of the two MFIs are as follows:

Domestic MFI			
Assets		Liabilities	
Loans and deposits	100	Loans and deposits	80
o/w loans to households	20		
Holdings of shares	10	Capital and reserves	30
Total assets	110	Total liabilities	110

Foreign subsidiary			
Assets		Liabilities	
Loans and deposits	30	Loans and deposits	40
Holdings of government securities	20	o/w loans from parent MFI	20
		Capital and reserves	10
Total assets	50	Total liabilities	50

As part of an intragroup reorganisation, the parent MFI takes over the government securities owned by the subsidiary (for a total amount of 20). In exchange for the securities, the subsidiary’s liability to the parent MFI is cancelled. After the operation takes place, the balance sheets are as follows:

Domestic MFI			
Assets		Liabilities	
Loans and deposits	80	Loans and deposits	80
Holdings of government securities	20	Capital and reserves	30
Holdings of shares	10		
Total assets	110	Total liabilities	110

Foreign subsidiary			
Assets		Liabilities	
Loans and deposits	30	Loans and deposits	20
		Capital and reserves	10
Total assets	30	Total liabilities	30

The asset transfer and its counterpart are both recorded as transactions. As a result of this operation, holdings of government securities by the domestic MFI sector show a positive change of 20.

5.6.2 Intragroup reorganisation – mergers, acquisitions or divisions

Transfers of assets often take place in the context of (intragroup) reorganisations in relation to mergers, acquisitions or divisions. If the merger or acquisition is cross-border or involves institutional units in different sectors, funds will usually flow across countries/sectors. In such cases it is crucial to have clear criteria defining when such transfers should be treated as transactions and when they should be treated as reclassifications. In accordance with the principles outlined above, if a merger or acquisition takes place but no corporation ceases to exist, transfers are treated as transactions. This happens, for example, in a subsidiary merger (SNA 2008, paragraph 21.21), i.e. when the acquired corporation becomes a subsidiary of the parent corporation.¹²³ It is worth noting, though, that if the merger or acquisition takes place within the same national territory, the flows will cancel out and there will be no impact on the national aggregated MFI balance sheet. In the case of restructuring across national boundaries, however, this approach will impact national results in the sense that intragroup transfers of assets will be reflected in the transaction of the national aggregated MFI balance sheet. Data are collected under the regulation on cross-border loan transfers between euro area MFIs so that

¹²³ In addition to being ESA 2010 compliant, this approach has the advantage of guaranteeing consistency with the treatment in other statistical domains such as balance of payments and government finance statistics.

national series can be adjusted for the impact of these operations (see also Section 7.1.4).

If the merger or acquisition leads to the disappearance of one or more institutional units, a distinction is made between transfers taking place before the disappearance of the units, which are treated as transactions, and those taking place at the moment when the units cease to exist, which are treated as reclassifications. In the latter case, two instances can be distinguished: a merger or acquisition where one corporation ceases to exist and is absorbed by another unit or units – a statutory merger (SNA 2008, paragraph 21.21), and a merger or acquisition where two or more corporations join to form an entirely new unit – a consolidation (SNA 2008, paragraph 21.21). In both instances, all cross-positions that existed between the merging institutions disappear from the system and reclassification adjustments must be reported accordingly. Corporate divisions are treated symmetrically. These various instances are analysed in detail in the numerical examples below. The information sources used to identify adjustments (when needed) are the final assets and liabilities reported by the old institutions and the first assets and liabilities reported by the new institutions. NCBs identify the outstanding balances between the institutions that have been restructured.

As discussed above, the criterion used to distinguish between flows that represent transactions and those to be recorded as reclassifications relies on the existence of two separate institutional units at the moment when the transfer takes place. Various cases are analysed in the sections below, each assuming that only two corporations are involved. More complicated cases can be broken down into these underlying operations or treated analogously. A distinction is also made between cases where the operation takes place within the same sector and cases where the corporations involved belong to different sectors (including where one corporation is non-resident). The discussion is limited to mergers and acquisitions, but corporate divisions can be treated symmetrically.

A final point relates to changes in valuation practices that often accompany mergers, acquisitions and divisions. These changes in balance sheet positions are not transactions and must in all cases be reflected in revaluation adjustments. For the sake of simplicity, the description below will not cover these aspects.

5.6.2.1 Merger or acquisition in which no corporation ceases to exist

If no corporation involved in the merger or acquisition ceases to exist, there is no change in the reporting population(s). However, restructuring operations often take place in these mergers or acquisitions and the related transfers of assets and liabilities between the units involved need to be treated as transactions. Similar operations take place in the case of disinvestment (e.g. the parent corporation sells a subsidiary) and are to be treated analogously. In brief, these situations are similar in all respects to those described in Section 5.6.1.

Example R

Merger or acquisition in which no corporation ceases to exist

Financial corporations A and B have the following balance sheets:

Corporation A			
Assets		Liabilities	
Cash	30		
Loans and deposits	20	Loans and deposits	10
o/w loans to B	10		
		Capital and reserves	40
Total assets	50	Total liabilities	50

Corporation B			
Assets		Liabilities	
Cash	20		
		Loans and deposits	30
		o/w loans from A	10
Holdings of shares	30	Capital and reserves	20
Total assets	50	Total liabilities	50

To acquire B, A raises new capital and purchases shares in B with the proceeds of that operation. B therefore becomes a subsidiary of A while remaining a separate institutional unit. This is reflected in an increase in A's capital and reserves, counterbalanced by an equivalent increase in its holdings of shares. It is assumed that A purchases the shares in B from third parties who do not belong to the same sector as either A or B. The same assumption applies to the units purchasing the new shares issued by A. These changes are transactions. Following the acquisition, the balance sheets are as follows:

Corporation A			
Assets		Liabilities	
Cash	30		
Loans and deposits	20	Loans and deposits	10
o/w loans to B	10		
Holdings of shares	20	Capital and reserves	60
o/w shares in B	20		
Total assets	70	Total liabilities	70

Corporation B			
Assets		Liabilities	
Cash	20		
		Loans and deposits	30
		o/w loans from A	10
Holdings of shares	30	Capital and reserves	20
Total assets	50	Total liabilities	50

Some intragroup operations then take place, with the transfer of 20 shares held by B to A in exchange for cash (10) and the cancellation of A's loan claim on B (10). The following transactions take place at this stage (A's capital increase and subsequent purchase of shares in B are not covered here):

Corporation A			
Assets		Liabilities	
Cash	-10		
Loans and deposits	-10	Loans and deposits	0
o/w loans to B	-10		
Holdings of shares	20	Capital and reserves	0
Total assets	0	Total liabilities	0

Corporation B			
Assets		Liabilities	
Cash	10		
		Loans and deposits	-10
		o/w loans from A	-10
Holdings of shares	-20	Capital and reserves	
Total assets	-10	Total liabilities	-10

Hence, all transfers and their counterparts are shown as transactions, including the decrease in cross-positions between the two corporations. There are no reclassifications and the final balance sheets are as follows:

Corporation A			
Assets		Liabilities	
Cash	20		
Loans and deposits	10	Loans and deposits	10
o/w loans to B	0		
Holdings of shares	40	Capital and reserves	60
o/w shares in B	20		
Total assets	70	Total liabilities	70

Corporation B			
Assets		Liabilities	
Cash	30		
		Loans and deposits	20
		o/w loans from A	0
Holdings of shares	10	Capital and reserves	20
Total assets	40	Total liabilities	40

In terms of aggregates for institutional sectors and sub-sectors, two distinct cases can be identified.

- Corporations A and B belong to the same sector.** *Compared to the position before the acquisition, the total assets and liabilities of the sector increase by 10 as a result of the increase of 20 in A's capital and the corresponding purchase of shares in B, and to the intragroup transactions (-10). There are no reclassifications.*

Sector of A and B – transactions			
Assets		Liabilities	
Cash	0		
Loans and deposits	-10	Loans and deposits	-10
o/w loans by A to B	-10	o/w loans by A to B	-10
Holdings of shares	20	Capital and reserves	20
Total assets	10	Total liabilities	10

Sector of A and B – reclassifications			
Assets		Liabilities	
Cash	0		
Loans and deposits	0	Loans and deposits	0
o/w loans by A to B	0	o/w loans by A to B	0
Holdings of shares	0	Capital and reserves	0
Total assets	0	Total liabilities	0

- Corporations A and B belong to different sectors.** All transfers and their counterparts are shown as transactions affecting the sectoral aggregates. There are no reclassifications. Compared to the situation before the acquisition, the sectoral balance sheets are affected as follows:

Sector of A – transactions			
Assets		Liabilities	
Cash	-10		
Loans and deposits	-10	Loans and deposits	
o/w loans by A to B	-10		
Holdings of shares	40	Capital and reserves	20
Total assets	20	Total liabilities	20

Sector of B – transactions			
Assets		Liabilities	
Cash	10		
		Loans and deposits	-10
		o/w loans by A to B	-10
Holdings of shares	-20	Capital and reserves	0
Total assets	-10	Total liabilities	-10

Sector of A – reclassifications			
Assets		Liabilities	
Cash	0		
Loans and deposits	0	Loans and deposits	0
o/w loans by A to B	0		
Holdings of shares	0	Capital and reserves	0
Total assets	0	Total liabilities	0

Sector of B – reclassifications			
Assets		Liabilities	
Cash	0	Loans and deposits	0
		o/w loans by A to B	0
Holdings of shares	0	Capital and reserves	0
Total assets	0	Total liabilities	0

5.6.2.2 Merger or acquisition in which one corporation ceases to exist (statutory merger)

When one of the corporations involved in the merger or acquisition ceases to exist, there is a change in the population of the sector to which the absorbed corporation belonged, with the acquiring corporation taking over the (residual) balance sheet of the unit which has been absorbed. This operation leads to reclassification adjustments. If the two corporations belong to the same sector, the adjustment will only relate to the decrease in the cross-positions between the merging institutions (including the shareholding of the acquiring corporation in the absorbed corporation). If they belong to different sectors or territories, the reclassifications will relate to all balance sheet positions existing when the acquired corporation ceases to exist, including the decrease in cross-positions between the merging institutions. See also Section 4.6.1.2 on the treatment of equity holdings in foreign branches in the case of a statutory merger.

All transfers of assets and liabilities between the units involved prior to the disappearance of the acquired corporation are transactions, however, and should be treated along the lines described above. Similar operations take place in the case of disinvestments involving the creation of a new company (e.g. a corporate spin-off) and should be treated analogously.

Example S

Acquisition in which one corporation ceases to exist.

Corporations A and B are as in Example R above, but after having acquired the shares in B (and increased its equity capital by 20), corporation A decides to wind down B and absorb its business activities.¹²⁴ Suppose that prior to the winding-down the balance sheets of A and B are as follows:

¹²⁴ Asset transfers taking place before B is wound down are treated as transactions along the lines of Example R. The assumptions of Example R are also kept here: A purchases shares in B from third parties that do not belong to the same sector as either A or B, and the same applies to the units purchasing the new shares issued by A. This example properly relates to an acquisition in which B's shareholders receive cash in exchange for their shareholdings (transactions). The case of a merger in which B's shareholders receive new shares in A in exchange for their shareholdings is similar: the counterparty for the two offsetting transactions of B's shareholders is corporation A, which is exchanging the new capital for the shares in corporation B.

Corporation A			
Assets		Liabilities	
Cash	30		
Loans and deposits	20	Loans and deposits	10
o/w loans to B	10		
Holdings of shares	20	Capital and reserves	60
o/w shares in B	20		
Total assets	70	Total liabilities	70

Corporation B			
Assets		Liabilities	
Cash	20		
		Loans and deposits	30
		o/w loans from A	10
Holdings of shares	30	Capital and reserves	20
Total assets	50	Total liabilities	50

The cash (20) and the shares (30) owned by B will move to the balance sheet of A, together with B's liabilities to third parties (20), while the cross-positions (the shares in B held by A (20) and the loans from A to B (10), making a total of 30) will disappear from the system. None of these changes are transactions. The net changes on the balance sheets of A and B relating to the winding-down of B (the increase in A's capital and its purchase of the shares in B are excluded here) are as follows:

Corporation A			
Assets		Liabilities	
Cash	20		
Loans and deposits	-10	Loans and deposits	20
o/w loans to B	-10		
Holdings of shares	10	Capital and reserves	0
o/w shares in B	-20		
Total assets	20	Total liabilities	20

Corporation B			
Assets		Liabilities	
Cash	-20		
		Loans and deposits	-30
		o/w loans from A	-10
Holdings of shares	-30	Capital and reserves	-20
Total assets	-50	Total liabilities	-50

After B is wound down, A's balance sheet is as follows:

Corporation A			
Assets		Liabilities	
Cash	50		
Loans and deposits	10	Loans and deposits	30
o/w loans to B	0		
Holdings of shares	30	Capital and reserves	60
Total assets	90	Total liabilities	90

In terms of aggregates for institutional sectors, two distinct cases can be identified.

- **Corporations A and B belong to the same sector.** In aggregated terms, reclassifications apply to all balance sheet items where cross-positions exist between A and B at the moment B is wound down. Taking into account the increase in A's capital and A's purchase of the shares in B (which are transactions), the following sectoral developments are observed:

Sector of A and B – changes in amounts outstanding			
Assets		Liabilities	
Cash	0		
Loans and deposits	-10	Loans and deposits	-10
o/w loans by A to B	-10	o/w loans by A to B	-10
Holdings of shares	0	Capital and reserves	0
Total assets	-10	Total liabilities	-10

Sector of A and B – reclassifications			
Assets		Liabilities	
Cash	0		
Loans and deposits	-10	Loans and deposits	-10
o/w loans by A to B	-10	o/w loans by A to B	-10
Holdings of shares	-10	Capital and reserves	-20
Total assets	-30	Total liabilities	-30

Sector of A and B – transactions			
Assets		Liabilities	
Cash	0		
Loans and deposits	0	Loans and deposits	0
o/w loans by A to B	0	o/w loans by A to B	0
Holdings of shares	20	Capital and reserves	20
Total assets	20	Total liabilities	20

- Corporations A and B belong to different sectors.** *In this case, reclassifications apply to all balance sheets items relating to the movement of assets from B to A, and to the cross-positions existing between A and B at the moment B is wound down. Taking into account the increase in A's capital and A's purchase of the shares in B (which are transactions), the following sectoral developments are observed:*

Sector of A – changes in amounts outstanding			
Assets		Liabilities	
Cash	20		
Loans and deposits	-10	Loans and deposits	20
o/w loans by A to B	-10		
Holdings of shares	30	Capital and reserves	20
Total assets	40	Total liabilities	40

Sector of B – changes in amounts outstanding			
Assets		Liabilities	
Cash	-20		
		Loans and deposits	-30
		o/w loans by A to B	-10
Holdings of shares	-30	Capital and reserves	-20
Total assets	-50	Total liabilities	-50

Sector of A – reclassifications			
Assets		Liabilities	
Cash	20		
Loans and deposits	-10	Loans and deposits	20
o/w loans by A to B	-10		
Holdings of shares	10	Capital and reserves	0
Total assets	20	Total liabilities	20

Sector of B – reclassifications			
Assets		Liabilities	
Cash	-20		
		Loans and deposits	-30
		o/w loans by A to B	-10
Holdings of shares	-30	Capital and reserves	-20
Total assets	-50	Total liabilities	-50

Sector of A – transactions			
Assets		Liabilities	
Cash	0		
Loans and deposits	0	Loans and deposits	0
o/w loans by A to B	0		
Holdings of shares	20	Capital and reserves	20
Total assets	20	Total liabilities	20

Sector of B – transactions			
Assets		Liabilities	
Cash	0		
		Loans and deposits	0
		o/w loans by A to B	0
Holdings of shares	0	Capital and reserves	0
Total assets	0	Total liabilities	0

5.6.2.3 Merger in which two corporations form an entirely new corporation (consolidation merger)

Both corporations involved in the merger cease to exist. There is therefore a change in the population(s) of the sector(s) of the merging corporations, with the newly established corporation taking over the balance sheets of the merging units. This operation leads to reclassification adjustments. If the two merging corporations and the new corporation belong to the same sector, the adjustment will only relate to the decrease in the cross-positions between the merging institutions and the disappearance from the system of the shares of the merging institutions. If the two merging corporations belong to the same sector but the new corporation belongs to a different sector, the reclassifications within the sector of the merging units will relate to all their balance sheet positions, including the decreases in cross-positions between the merging institutions, while the reclassifications within the sector of the new corporation will relate only to its balance sheet positions (and not the raising of new capital and the corresponding purchases of the shares in the merging corporations, which represent transactions). Cases where the two merging corporations do not belong to the same sector are treated analogously. Cases where a corporation is split into two new entities are also treated analogously.

Example T

Merger in which two corporations form an entirely new corporation.

Let corporations A and B have balance sheets as in Example R above:

Corporation A			
Assets		Liabilities	
Cash	30		
Loans and deposits	20	Loans and deposits	10
o/w loans to B	10		
		Capital and reserves	40
Total assets	50	Total liabilities	50

Corporation B			
Assets		Liabilities	
Cash	20		
		Loans and deposits	30
		o/w loans from A	10
Holdings of shares	30	Capital and reserves	20
Total assets	50	Total liabilities	50

Suppose that A and B merge into a new corporation C.¹²⁵ C issues new capital for 60 which is exchanged for the shares in A and B. The shareholders of A and B receive new shares in C (40 and 20 respectively) in exchange for their old shares in A and B. These operations are transactions.

Corporation C			
Assets		Liabilities	
Holdings of shares	60	Capital and reserves	60
o/w shares in A and B	60		
Total assets	60	Total liabilities	60

A and B are then wound down and their assets and liabilities are moved to the balance sheet of C. None of the consequent changes in balance sheet outstanding amounts represent transactions. The net changes on the balance sheets of A and B are as follows:

Corporation A			
Assets		Liabilities	
Cash	-30		
Loans and deposits	-20	Loans and deposits	-10
o/w loans to B	-10		
Holdings of shares	0	Capital and reserves	-40
Total assets	-50	Total liabilities	-50

Corporation B			
Assets		Liabilities	
Cash	-20		
		Loans and deposits	-30
		o/w loans from A	-10
Holdings of shares	-30	Capital and reserves	-20
Total assets	-50	Total liabilities	-50

The assets and liabilities of A and B (excluding the cross-positions existing between them) are transferred to the balance sheet of C in exchange for the shares in A and B which C had on its balance sheet and which now disappear from the system:

¹²⁵ Asset transfers taking place before A and B are wound down are treated as transactions along the lines of Example R. The assumptions of Example R are also kept here: the shareholders of A and B do not belong to the sector of either A or B.

Corporation C			
Assets		Liabilities	
Cash	50		
Loans and deposits	10	Loans and deposits	30
Holdings of shares	30	Capital and reserves	60
Total assets	90	Total liabilities	90

In terms of aggregates for institutional sectors, four distinct cases can be identified.

- Corporations A and B and the new corporation C belong to the same sector.** In aggregated terms, there are no changes in outstanding amounts except in balance sheet items where cross-positions existed between A and B. These changes are recorded as reclassifications. Reclassifications will also be entered for the shares of A and B once they disappear from the system:

Sector of A, B and C – changes in amounts outstanding			
Assets		Liabilities	
Cash	0		
Loans and deposits	-10	Loans and deposits	-10
o/w loans by A to B	-10	o/w loans by A to B	-10
Holdings of shares	0	Capital and reserves	0
Total assets	-10	Total liabilities	-10

Sector of A, B and C – reclassifications			
Assets		Liabilities	
Cash	0		
Loans and deposits	-10	Loans and deposits	-10
o/w loans by A to B	-10	o/w loans by A to B	-10
Holdings of shares	-60	Capital and reserves	-60
Total assets	-70	Total liabilities	-70

Sector of A, B and C – transactions			
Assets		Liabilities	
Cash	0		
Loans and deposits	0	Loans and deposits	0
o/w loans by A to B	0	o/w loans by A to B	0
Holdings of shares	60	Capital and reserves	60
Total assets	60	Total liabilities	60

- Corporations A and B belong to the same sector but C belongs to a different sector.** The aggregated balance sheet of the sector of A and B shows changes in outstanding amounts which relate to their assets and liabilities at the time when they cease to exist, including decreases in balance sheet items where cross-positions existed between A and B. All these changes are recorded as reclassifications. Similarly, the aggregated balance sheet of the sector of C shows changes relating to the assets and liabilities of the new corporation. In addition, while the issuance of capital by C and its counterparts (the purchases of the capital of A and B) are recorded as transactions, all other operations are recorded as reclassifications:

Sector of A and B – changes in amounts outstanding			
Assets		Liabilities	
Cash	-50		
Loans and deposits	-20	Loans and deposits	-40
o/w loans by A to B	-10	o/w loans by A to B	-10
Holdings of shares	-30	Capital and reserves	-60
Total assets	-100	Total liabilities	-100

Sector of C – changes in amounts outstanding			
Assets		Liabilities	
Cash	50		
Loans and deposits	10	Loans and deposits	30
Holdings of shares	30	Capital and reserves	60
Total assets	90	Total liabilities	90

Sector of A and B – reclassifications			
Assets		Liabilities	
Cash	-50		
Loans and deposits	-20	Loans and deposits	-40
o/w loans by A to B	-10	o/w loans by A to B	-10
Holdings of shares	-30	Capital and reserves	-60
Total assets	-100	Total liabilities	-100

Sector of C – reclassifications			
Assets		Liabilities	
Cash	50		
Loans and deposits	10	Loans and deposits	30
Holdings of shares	-30	Capital and reserves	0
Total assets	30	Total liabilities	30

Sector of A and B – transactions			
Assets		Liabilities	
Cash	0		
Loans and deposits	0	Loans and deposits	0
o/w loans by A to B	0	o/w loans by A to B	0
Holdings of shares	0	Capital and reserves	0
Total assets	0	Total liabilities	0

Sector of C – transactions			
Assets		Liabilities	
Cash	0		
Loans and deposits	0	Loans and deposits	0
Holdings of shares	60	Capital and reserves	60
Total assets	60	Total liabilities	60

- Corporations A and B do not belong to the same sector, while C belongs to the same sector as A.** The aggregated balance sheet of the sector of B shows changes in outstanding amounts which relate to its assets and liabilities at the time when it ceases to exist, including the cross-positions between A and B. All these changes are recorded as reclassifications. The aggregated balance sheet of the sector of A and C shows changes in outstanding amounts which relate to the assets and liabilities that C inherited from B when it ceased to exist and also reflect the cross-positions which existed between A and B. In addition, while the issuance of capital by C and its counterparts (the purchases of the capital of A and B) are recorded as transactions, all other operations are recorded as reclassifications:

Sector of A and C – changes in amounts outstanding

Assets		Liabilities	
Cash	20		
Loans and deposits	-10	Loans and deposits	20
o/w loans by A to B	-10		0
Holdings of shares	30	Capital and reserves	20
Total assets	40	Total liabilities	40

Sector of B – changes in amounts outstanding

Assets		Liabilities	
Cash	-20		
		Loans and deposits	-30
		o/w loans by A to B	-10
Holdings of shares	-30	Capital and reserves	-20
Total assets	-50	Total liabilities	-50

Sector of A and C – reclassifications

Assets		Liabilities	
Cash	20		
Loans and deposits	-10	Loans and deposits	20
o/w loans by A to B	-10		
Holdings of shares	-30	Capital and reserves	-40
Total assets	-20	Total liabilities	-20

Sector of B – reclassifications

Assets		Liabilities	
Cash	-20		
		Loans and deposits	-30
		o/w loans by A to B	-10
Holdings of shares	-30	Capital and reserves	-20
Total assets	-50	Total liabilities	-50

Sector of A and C – transactions			
Assets		Liabilities	
Cash	0		
Loans and deposits	0	Loans and deposits	0
o/w loans by A to B	0		
Holdings of shares	60	Capital and reserves	60
Total assets	60	Total liabilities	60

Sector of B – transactions			
Assets		Liabilities	
Cash	0		
		Loans and deposits	0
		o/w loans by A to B	0
Holdings of shares	0	Capital and reserves	0
Total assets	0	Total liabilities	0

- **None of corporations A, B or C belong to the same sector.** *This case is not covered here but can be described along the same lines.*

5.7 Other reclassification adjustments

Other reclassification adjustments comprise any change in the balance sheet of the MFI sector that arises as a result of reclassifications of counterparties and of assets and liabilities, the (partial) correction of reporting errors, the introduction of new statistical concepts or definitions, or euro area enlargement. Each adjustment case is discussed in turn below. A number of cases where reclassification adjustments are not recorded but the operation is instead treated as a transaction are also discussed in Section 5.7.4 below.

5.7.1 Changes in the sector classification, residence of customers, or instrument

Changes in the sector classification or residence of customers give rise to a reclassification of assets/liabilities vis-à-vis these counterparties. Such reclassifications result in a change in the reported outstanding positions in the period in which the change takes place. As this change is a book-entry transfer of business between sectors and instrument classes and does not represent a transaction, an adjustment must be introduced to remove its impact from the statistics. Such changes in classification occur for a number of reasons, for example because a

governmental entity (which is not a market producer while in the government sector) is privatised,¹²⁶ or because mergers/divisions alter the principal activity of corporations. Example U presents the case of a change in the classification of a counterparty. Other cases have similar consequences for sectoral balance sheets and are therefore analogous.

Instruments may also be reclassified, for example when loans become negotiable and are accordingly regarded as debt securities for statistical purposes. When a Member State adopts the euro, national banknotes and coins which remain in circulation are by convention recorded as such for 12 months (remaining in the MFI balance sheet liabilities category “currency in circulation”), after which time they are reclassified to “remaining liabilities”. A reclassification adjustment ensures that the resulting drop in the monetary aggregates outstanding is not reflected in their growth rates.

Example U

Corporation A is reclassified from the OFI sector to the non-financial corporations sector

The aggregated balance sheet of the MFI sector will be affected by this change in classification: all claims and liabilities that MFIs have vis-à-vis A are reclassified as positions with the non-financial corporations sector. Suppose, for instance, that the MFI sector had granted loans to A and that no other balance sheet positions are affected. The aggregated balance sheet of the MFI sector will then be affected as follows:

MFI sector – outstanding amounts before the change			
Assets		Liabilities	
Loans and deposits	100	Loans and deposits	80
o/w loans to OFIs	30		
o/w loans to A	10		
o/w loans to non-financial corporations	50		
		Capital and reserves	20
Total assets	100	Total liabilities	100

¹²⁶ While privatisations may mean a change in sector, as here, this is often not the case because corporations which are market producers will be classified as financial or non-financial corporations regardless of who owns them.

MFI sector – outstanding amounts after the change			
Assets		Liabilities	
Loans and deposits	100	Loans and deposits	80
o/w loans to OFIs	20		
o/w loans to non-financial corporations	60		
o/w loans to A	10	Capital and reserves	20
Total assets	100	Total liabilities	100

As a consequence, the changes in outstanding amounts affecting the “of which” positions under “loans and deposits” must be balanced by reclassifications to allow the correct derivation of financial transactions:

MFI sector – changes in outstanding amounts			
Assets		Liabilities	
Loans and deposits	0	Loans and deposits	0
o/w loans to OFIs	-10		
o/w loans to non-financial corporations	10	Capital and reserves	0
Total assets	0	Total liabilities	0

MFI sector – reclassifications			
Assets		Liabilities	
Loans and deposits	0	Loans and deposits	0
o/w loans to OFIs	-10		
o/w loans to non-financial corporations	10	Capital and reserves	0
Total assets	0	Total liabilities	0

5.7.2 Correction of reporting errors

The correction of reporting errors may give rise to an adjustment. Ideally, corrections of the outstanding amounts should be provided for the whole period concerned, entirely removing the error from the data. However, where the error affects historical data and a correction of past data is not made or can only be made for a limited time range, there is a break in the outstanding amounts between the first observation with the corrected figure and the last one containing the incorrect figure. In this case, NCBs identify the size of the break and enter an adjustment under “reclassification adjustments”. Similar practices apply to the implementation of changes in statistical definitions affecting reported data, and to corrections for breaks that may be due to the introduction, change or abandonment of grossing-up methods.

5.7.3 Enlargement of the euro area as a reclassification adjustment

This section describes the treatment of enlargements of the euro area in MFI balance sheet statistics and monetary statistics as a special type of reclassification.

To date the euro area has undergone seven enlargements involving eight EU Member States – Greece in 2001, Slovenia in 2007, Cyprus and Malta in 2008, Slovakia in 2009, Estonia in 2011, Latvia in 2014 and Lithuania in 2015. Each accession adds the aggregated and consolidated balance sheets of the MFI sector of the new euro area country to the respective euro area totals.

All MFI balance sheet statistics reflect the actual composition of the euro area at the time to which the data relate. Each enlargement therefore brings a one-off change in the outstanding amounts of the euro area aggregates. For example, euro area monetary aggregates increase both by the amount of holdings of monetary instruments by residents of the new euro area country representing claims on domestic MFIs (and in some cases central government agencies) and claims on MFIs resident in other euro area countries, and by the amount of holdings of monetary instruments by residents of other euro area countries representing claims on MFIs resident in the new euro area country. Among the counterparts of M3, outstanding credit to euro area residents increases in a similar way, and the external counterpart (net external assets) in both the new and old euro area countries is affected by the changed status of the Member State adopting the euro.

None of these changes in outstanding balance sheet positions and in aggregates derived from them represent transactions. For example, the increase in M3 stock resulting from an enlargement of the euro area is not reflected in a corresponding increase in its growth rate. Rather, the increases in outstanding positions and related aggregates are treated as reclassifications, although as explained below new euro area countries are asked not to directly report reclassification adjustments relating to the enlargement. The calculation of flows and growth rates of MFI balance sheet items and monetary aggregates is explained in more detail in Chapter 7.

Data requirements for the Member State joining the euro area

From the reference month in which the enlargement takes place, MFIs in the new euro area country are required to report to their NCB according to the template for euro area countries under Regulation ECB/2013/33. The NCB then compiles the national aggregated MFI balance sheet and transmits it to the ECB. In addition, the NCB is also required to report to the ECB at least three years of back data according to the euro area reporting scheme, i.e. monthly and quarterly MFI aggregated balance sheet statistics as if the Member State had already been part of the euro area.¹²⁷ These historical data are collected to provide euro area aggregates

¹²⁷ No input is generally required from individual MFIs to perform this exercise, as the underlying raw data are already reported under the template set for EU Member States not participating in the Monetary Union under Regulation ECB/2013/33. Essentially, in addition to recording the time series according to the naming conventions for euro area countries, the NCB must add positions in national currency to the corresponding ones in euro. For testing and data validation reasons, the ECB may also require the NCB to report both as a euro area country and as an EU Member State outside the euro area for three to six months prior to the enlargement.

reflecting the new composition for several years before the enlargement (needed for policy analysis and forecasting), to be used alongside other sets of statistics representing the euro area in its latest composition. These data also allow transactions relating to the new euro area country around the time of enlargement to be correctly derived. Accordingly, the new euro area country should not send any reclassification adjustments relating to the change in the composition of the euro area implied by its joining.

Data requirements for the Member States already in the euro area

In the month (or quarter) in which the enlargement takes place, MFIs in the existing euro area countries are required to reclassify positions vis-à-vis the new euro area country and positions denominated in the national currency of the joiner. In particular:

- (i) all positions vis-à-vis the new euro area country are reclassified from “rest of the world” to “other euro area residents”;
- (ii) all positions denominated in the joiner's national currency are reclassified from “all other currencies combined” to “euro”.

Each euro area NCB then compiles its national aggregated MFI balance sheet for the enlarged euro area and transmits it to the ECB, taking care to also transmit reclassification adjustments accounting for the change in the outstanding amounts series arising from the enlargement. In addition, for all time series in the monthly reporting scheme the NCBs are also required to report, upon request, at least three years of back data (“delta series”) showing, for each time series, the positions vis-à-vis the new euro area country both in euro and in the joiner's national currency, so that time series can be compiled as if the new euro area country had already been part of the euro area.¹²⁸ These historical data will generally enable aggregates for the euro area in its new composition to be derived for several years before the enlargement.¹²⁹

Special requirements when two or more countries join the euro area

The reporting requirements are more complex if two or more countries join the euro area at the same time. In particular, each joiner should report historical series as if it had already been part of the euro area without taking into account the other joiners, i.e. these historical data must exclude positions vis-à-vis the other new euro area countries. This implies that to allow a correct derivation of flows at the time of enlargement, each joiner should report reclassification adjustments according to the same rules outlined for Member States already in the euro area, but only referring to

¹²⁸ Whether or not the ECB requires these positions may depend on their significance for the euro area aggregates.

¹²⁹ The enlargement also has an impact on the structure of the reporting scheme based on Tables 3 and 4 of Part 3 of Annex I to Regulation ECB/2013/33. In particular, series which have the new euro area country as a geographical counterparty become mandatory in Table 3, while series originally denominated in the national currency of the new euro area country cease to be reported in Table 4. In addition, positions in the national currency of the new euro area country must be removed from the moving composition currency aggregate “EU currencies other than euro” in Table 4.

positions vis-à-vis the other joiners. Similarly, each of the new euro area countries should report delta series (when required by the ECB) vis-à-vis the other new joiners to enable the ECB to derive historical euro area aggregates reflecting the new composition.

5.7.4 Cases not regarded as reclassifications: debt assumption, debt forgiveness, asset transfers, investment policy change

Some operations that might be regarded as reclassifications are in fact treated as transactions. One such example is debt assumption, where one entity takes the place of another as debtor, as a government may do for a publicly owned corporation in a privatisation or for some other entity in the event of a rescue. Under the ESA 2010, debt assumption is treated as a capital transfer (i.e. as a transaction), and this approach is reflected in MFI balance sheet statistics. For example, where a government takes over the debt represented by bank loans to a public corporation in the non-financial corporation sector, the operation is treated in MFI balance sheet statistics as a repayment of loans by non-financial corporations and an extension of MFI credit to general government. It does not give rise to a reclassification adjustment.

Debt forgiveness is also treated as a transaction (capital transfer), as stated in Section 2.4, whereas a write-off or write-down of loans is not a transaction as it is a unilateral action by the creditor.

Convertible bonds (or debt swaps), usually classified as fixed interest rate debt securities, may at the option of the issuer (or holder) be converted into the equity of the issuer, at which point they are classified as equity securities. Transactions should be recorded for the value of the new instrument at the time of conversion in line with the ESA 2010 (6.25). Where the value of the original instrument is written down at the time of conversion, it is recorded as a revaluation adjustment (see also Section 4.6.1.1).

Another example is the transfer of assets (usually impaired) from a reporting MFI to an entity established for the purposes of winding down the asset portfolio and to allow the balance sheet to be split between the MFI's ongoing business and the "bad bank" or defeasance structure. This transfer usually meets the ESA 2010 definition of a transaction as "an economic flow that is an interaction between institutional units by mutual agreement". However, see also Section 4.3.11 on the reporting of loan transfers.

Another case that does not usually give rise to a reclassification adjustment is a change in the investment policy of an investment fund that leads to it being classified as an MMF (or alternatively a change in the investment policy of an MMF that leads to it being dropped from the list of MFIs). As any change in investment policy must be agreed by investors, if they retain their holdings they are deemed to have made a conscious decision to switch their portfolios from one sector (MMFs) to another (investment funds other than MMFs), and there is no reclassification adjustment. An

NCB may deviate from this treatment and report a reclassification adjustment only if it learns that investors were unaware of the policy change or were otherwise unable to react to it. Where there is no change in investment policy but an MMF is reclassified owing to a change in the applicable supervisory definitions, a reclassification adjustment should be made.

5.8 Exchange rate change adjustments

Movements in exchange rates against the euro between end-of-period reporting dates give rise to changes in the value of foreign currency assets and liabilities when expressed in euro. As these changes represent holding gains/losses and not financial transactions, the valuation effects need to be identified so that they can be excluded from transactions.

Unlike with price changes, reporting MFIs do not provide exchange rate adjustments – their price adjustments in respect of foreign currency items on the balance sheet exclude exchange rate effects. Instead, they convert assets and liabilities denominated in foreign currencies into euro using market exchange rates (see Section 2.5.4).

The monthly MFI balance sheet reporting distinguishes only between positions denominated in euro and positions in (all) foreign currencies. The quarterly reporting based on Table 4 in Part 3 of Annex I to Regulation ECB/2013/33) includes breakdowns of loans denominated in each EU Member State currency, and also breakdowns of loans, deposits, debt securities held and debt securities issued denominated in GBP, USD, JPY, CHF and all remaining currencies combined. The ECB uses these quarterly data to calculate a standard adjustment to the currency composition of main categories of MFI assets and liabilities. Where only summary information is available (e.g. the foreign currency component of an instrument class but not of its constituent parts, i.e. a limited sectoral breakdown of foreign currency assets and liabilities of MFIs), the ECB spreads the pattern of currencies in the category across its components, estimating the effect of currency changes on the current balance sheet compared with that of the previous month.

Section 7.2.2 explains in more detail the ECB methodology for deriving exchange rate adjustments. This estimation procedure is acceptable because only a small proportion of MFI balance sheet items are denominated in currencies other than euro. If the share of foreign currency denominated instruments is significant, and NCBs have access to more disaggregated and/or monthly information to compile more accurate adjustments, NCBs may transmit these adjustments to the ECB.

6 Procedures for reporting data to the ECB

This chapter covers the reporting of MFI balance sheet aggregates by NCBs to the ECB. NCBs also have specific reporting procedures for the reporting of statistical data by MFI reporting agents to the NCB.

6.1 Grossing-up procedures

As mentioned in Section 2.7.1, Regulation ECB/2013/33¹³⁰ distinguishes between MFIs which are subject to full reporting requirements and small MFIs to which derogations are applicable. Where NCBs grant derogations to MFIs in accordance with Article 9(1)(a) and/or (d) of the Regulation, NCBs gross up the data to 100% coverage for these MFIs in the compilation of monthly and quarterly MFI balance sheet data reported to the ECB.

The procedure used for grossing up the data to 100% coverage must fulfil the following minimum standards (see Article 3(5) of Guideline ECB/2014/15):

- (i) missing breakdowns are estimated by applying ratios based on a subset of the actual reporting population considered to be more representative of the “tail”, as follows:
 - for euro area countries whose contribution to the aggregated MFI balance sheet of the euro area is larger than 2%, the subset is determined such that the total balance sheet of the entities in the subset does not exceed 35% of the national aggregated MFI balance sheet, unless the balance sheets of the institutions to which the derogations are granted account for less than 1% of the national MFI balance sheet;
 - the same arrangement is adopted for euro area countries whose contribution to the total aggregated MFI balance sheet of the euro area is less than 2%, unless significant costs are involved, in which case ratios based on the entire reporting population are applied instead;
- (ii) in applying point (i), both the “tail” and the subset of the actual reporting population may be divided into different groups according to the type of institution (e.g. MMFs or credit institutions);
- (iii) whenever the contribution of MMFs that report their total assets only once a year exceeds 30% of the total MMF balance sheet in the euro

¹³⁰ Regulation (EU) No 1071/2013 of the European Central Bank of 24 September 2013 concerning the balance sheet of the monetary financial institutions sector (recast) (ECB/2013/33) (OJ L 297, 7.11.2013, p. 1).

area country concerned, data reported by MMFs and credit institutions are grossed up separately as follows:

- if there is sufficient coverage from MMFs that are full reporters, their aggregated balance sheet is used as the basis for grossing up;
 - if the coverage from MMFs that are full reporters is insufficient or there are no MMFs that are full reporters, the balance sheet of the MMF sector is estimated from alternative data sources, at least once a year, and used as the basis for grossing up;
- (iv) where breakdowns are available, but with a longer delay or at a lower frequency, reported data are carried forward into the missing periods by:
- repeating the data when the results have proved to be adequate; or
 - applying appropriate statistical estimation techniques to take account of trends in the data or seasonal patterns;
- (v) ratios or any other intermediate calculation required to implement the minimum standards for grossing up may be derived from data obtained from supervisory authorities whenever a reliable link can be established between the statistical series to be grossed up and such data.

NCBs are required to inform the ECB of any significant changes in their grossing-up procedures. This is important for various reasons. For instance, such changes may determine breaks in the time series. Similarly, when new data become available the assumptions used for grossing up may change and past data may need to be revised to improve the quality of the estimates.

6.2 Rounding policy and data transmission

NCBs report MFI balance sheet data to the ECB in millions of euro.¹³¹ Amounts are rounded to the nearest million. Exact half millions are rounded up.

Statistics are reported as missing (value “NC”) when the specific balance sheet item relates to instruments which do not exist in the reference area (e.g. owing to legal restrictions) or which exist but for which the data are not collected (e.g. for non-mandatory items) and not estimated. Where the balance sheet item covers instruments which exist in the reference area and for which data are collected (or estimated) but the corresponding amounts outstanding are less than €0.5 million, the reporting country should report “0” (and not a missing value).

¹³¹ Non-euro area EU Member States report MFI balance sheet data in millions of national currency, however.

NCBs must report an observation status value attached to each exchanged observation. Missing values are reported with observation status flag “M” when they relate to instruments which do not exist in the reference area, and “L” when the data exist but are not collected (and not estimated). When data are not reported as missing, the observation status flags are “A” for normal values, “E” for estimated values and “P” for provisional values (the latter attribute is often used for the last/most recent observation and is usually replaced by an “A” in the subsequent transmission). If an observation is qualified by two characteristics, the more important is reported. For example, if an observation is both a provisional value and the result of an estimate, priority is given to the “estimate” characteristic and the flag “E” is used.

NCBs transmit data on MFI balance sheet statistics to the ECB using special data exchange arrangements. The data exchanges use standardised platform-independent messages (SDMX-EDI format – known as Gesmes/TS), including data (numeric values) and/or attributes (metadata explaining the data).¹³²

To exchange statistical messages, the data are structured according to precise “key families” (i.e. data structure definitions) consisting of statistical concepts and code lists which allow the data content to be described adequately and unambiguously. Each dataset must conform to a known key family definition.

The key families define the structure of the series keys, i.e. the set of their dimensions in terms of concepts and associated code lists, and their relationship with the relevant attributes. In the Gesmes/TS messages exchanged, statistical concepts can be used either as dimensions (in composing the keys identifying the time series) or as attributes (providing information about the data). Coded dimensions and attributes take their values from predefined code lists.

The ECB disseminates MFI balance sheet statistics using the same data exchange standards.

6.3 Revision policy

Statistical series may be subject to revision. High-frequency data may be revised in the light of later more complete or more correct information, while methodological improvements may from time to time require earlier data to be revised. The ECB’s policy is to announce revision cycles in advance, provide full documentation on revisions, keep their size and pattern under review and, as far as this is possible, revise earlier data where this can be done at reasonable cost.

As outlined in Article 3(3) of Guideline ECB/2014/15, two types of revisions to national aggregates for MFI balance sheet data are possible: (i) ordinary revisions

¹³² SDMX (Statistical Data and Metadata eXchange) is an initiative to promote internationally agreed standards for the exchange of statistical data and is sponsored by several institutions (ECB, Eurostat, IMF, BIS, OECD, UN, World Bank). See the [SDMX website](#) for more details.

referring to the period immediately preceding the most recent one, and
(ii) exceptional revisions referring to previous dates or periods.

Ordinary revisions are part of the normal routine. Exceptional revisions are generally less common and normally due to the correction of mistakes, reclassifications, improved reporting procedures, etc. The principles to which the revision policy should conform are as follows:

- In transmitting revised data, NCBs must take into consideration the established timeliness of regular reporting so as not to clash with the regular production period. Exceptional revisions may be processed with ordinary revisions, or the ECB may request they are transmitted outside the regular production cycle (see further detail below).
- Any significant revisions (not due to grossing-up or minor routine corrections) should be accompanied by an explanatory note. Exceptional revisions should always be notified to the ECB in advance and accompanied by an explanatory note.
- Exceptional revisions to monthly data should be submitted with the quarterly returns. Where the current national reporting scheme does not allow revised quarterly data to be reported together with monthly revisions referring to the same end-of-quarter month, NCBs must ensure that consistency between monthly and quarterly data is maintained as far as possible.¹³³ This practice is required to ensure a good balance between the quality of monetary statistics and their stability, and to enhance consistency between monthly and quarterly returns.
- In relation to data used for the reserve base statistics and reserve requirements, revisions made after the maintenance period has commenced may not lead to revisions being made to the statistics on the reserve base and on the reserve requirements.
- Revisions to MMF data should be consistent with the corresponding end-of-quarter data for the MFI sector. Where revisions imply changes to the data for the corresponding other MFI reference period, revisions should also be transmitted to correct this data.

Where exceptional and ordinary revisions and updates are reported in the same data file, all data are processed simultaneously. If exceptional revisions are reported separately during the production period, the ECB may decide to postpone the processing and storage of the exceptional revisions until after the production period to avoid delays in regular data processing and in the production of euro area aggregates. If incoming exceptional revisions would significantly affect the data at euro area level or correct notable mistakes, however, these revisions may also be accepted during the production period.

¹³³ For this purpose, estimates can be derived for the quarterly breakdowns corresponding to the revised monthly series, at least for the more significant aggregates, which are then replaced by actual quarterly data as soon these are available.

Finally, the ECB has formalised quality monitoring in respect of statistics by requiring periodic reports on revisions. Such reports are published regularly for monetary and financial statistics. In publishing statistics and revising data after publication, the ECB coordinates its actions with the NCBs and internally across different areas of statistics where necessary. The aim is to present the most up-to-date information while maintaining consistency across statistics and over time as far as possible.¹³⁴

¹³⁴ See for example the Euro area monetary and financial statistics data quality report, available on the [ECB's website](#).

7 Compilation of euro area statistics

7.1 Derivation of the euro area aggregated and consolidated balance sheet

The main source of information for euro area monetary statistics (monetary aggregates and counterparts of M3) is the MFI balance sheet, aggregated across the euro area and then consolidated (inter-MFI positions cancelled out). Supplementary information is also taken into account concerning monetary liabilities of central government and post office giro institutions (POGIs) and holdings of certain monetary instruments by non-residents of the euro area. The ECB compiles monetary statistics for the euro area as amounts outstanding (stocks) and as transactions, with the aim of capturing financial transactions between the MFI sector and other economic sectors during the reference period. Financial transactions are calculated by adjusting the difference between end-of-month stocks for the effect of “non-transaction-related” factors which do not imply a flow of financing between sectors (i.e. reclassification adjustments, exchange rate changes, price revaluations and loan write-offs/write-downs; see Chapter 5 and Section 7.2 below).

As discussed in Chapter 3, all monthly MFI balance sheet information, including required data on “reclassification adjustments” and “revaluation adjustments”, must be submitted by NCBs to the ECB by the 15th working day after the end of the calendar month to which the data relate. NCBs also report data on monetary assets and liabilities of central government and POGIs. In addition, ECB compilers receive information concerning the ECB’s own balance sheet and obtain some estimates of the geographical breakdowns of the holders of negotiable instruments issued by MFIs from other sources (see Section 7.1.4 below).

7.1.1 The euro area aggregated MFI balance sheet

The euro area aggregated MFI balance sheet consists of the aggregated balance sheets of the Eurosystem and of the MFI sector excluding the Eurosystem (“other MFIs”). The aggregated balance sheet of the Eurosystem is obtained by aggregating the national balance sheets of all NCBs in the euro area and the ECB, item by item. Similarly, the national balance sheets of all MFIs excluding the NCBs, for all countries participating in the euro area, are aggregated by summing them up. The format of the NCB/ECB balance sheet is identical to that of the other MFIs with the exception of three additional balance sheet items specific to central banks (“gold”,¹³⁵ “receivables from the IMF” and “counterparts of SDRs”). The two aggregated balance sheets, one for the Eurosystem and one for the other euro area MFIs, are

¹³⁵ As noted in Section 4.2, gold held by a central bank is normally classified as monetary gold and is a financial asset, whereas gold held by anyone else (including other MFIs) is treated statistically as a commodity and thus as a non-financial asset and is included in “non-financial assets (including fixed assets)”.

compiled on a gross basis (i.e. without netting out inter-MFI positions) and include all MFI assets and liabilities vis-à-vis the sectors identified within the balance sheet structure, including the MFI sector itself. They are published by the ECB each month.

Table 4
Derivation of aggregated balance sheet of the euro area MFI sector

Derivation of aggregated balance sheet of the Eurosystem	Derivation of aggregated balance sheet of MFIs other than the Eurosystem
Stocks (transactions) for each balance sheet item of NCB in country 1	Stocks (transactions) for each balance sheet item of "other MFIs" in country 1
+	+
.....
+	+
Stocks (transactions) for each balance sheet item of NCB in country n	Stocks (transactions) for each balance sheet item of "other MFIs" in country n
+	=
Stocks (transactions) for each balance sheet item of the ECB	Aggregated stocks (transactions) for each balance sheet item of euro area MFIs other than the Eurosystem
=	
Aggregated stocks (transactions) for each balance sheet item of the Eurosystem	
Derivation of aggregated balance sheet of the MFI sector	
Aggregated stocks (transactions) for each balance sheet item of the Eurosystem	
+	
Aggregated stocks (transactions) for each balance sheet item of euro area MFIs other than the Eurosystem	
=	
Aggregated stocks (transactions) for each balance sheet item of the euro area MFI sector	

The aggregated balance sheets of the Eurosystem and of other MFIs are then aggregated by summing them up, item by item, into the aggregated balance sheet of the euro area MFI sector as a whole, which provides the basis for the derivation of the consolidated balance sheet as described in the next section. The same procedure is adopted for amounts outstanding and for transactions.

7.1.2 The euro area consolidated MFI balance sheet

The starting point for the derivation of the consolidated balance sheet is the aggregated balance sheet of the MFI sector as a whole. The consolidated balance sheet of the euro area MFI sector provides statistical information on the MFI sector's assets and liabilities vis-à-vis residents of the euro area outside the MFI sector (i.e. general government and all other euro area residents) and vis-à-vis non-residents of the euro area, and is obtained by netting the inter-MFI positions within the euro area. The netting of inter-MFI positions is not confined to deposits and loans but covers all balance sheet items where counterparty information allows the amount of the MFI liability held within the MFI sector to be determined. For example, in the case of currency issued, the amounts held within the MFI sector are netted out. By convention the remainder, which may be held by the euro area money-holding

sector,¹³⁶ by euro area central government or by residents of the rest of the world, is allocated fully to the euro area money-holding sector and therefore included in the monetary aggregates. Similar difficulties also arise for shares/units issued by MMFs and debt securities issued by MFIs with an original maturity of up to two years (both of which are monetary instruments included in M3). Inter-MFI positions are netted and estimated holdings by non-residents of the euro area are excluded from M3 (see also Section 7.1.4 below). Positions are also netted for repurchase agreements (repos) and reverse repos conducted through euro area central counterparties (CCPs) (see also Section 4.4.4). Investigations of the largest euro area CCPs by the ECB confirm that counterparties involved in repo/reverse repo transactions via CCPs are mainly euro area MFIs or non-residents of the euro area, i.e. the cash lenders/borrowers are not part of the euro area money-holding sector. Repos with euro area CCPs are therefore excluded from M3, while reverse repos with euro area CCPs are excluded from the M3 counterpart position “credit to euro area residents”.¹³⁷

In the case of debt securities issued by MFIs with an original maturity of over two years, no further estimations are made. After inter-MFI holdings have been netted out, the remainder is assumed to be held in the euro area and is allocated to the counterpart “longer-term financial liabilities” (see below). The same applies to the remainder of capital and reserves after holdings by other MFIs have been deducted from shares issued by MFIs.

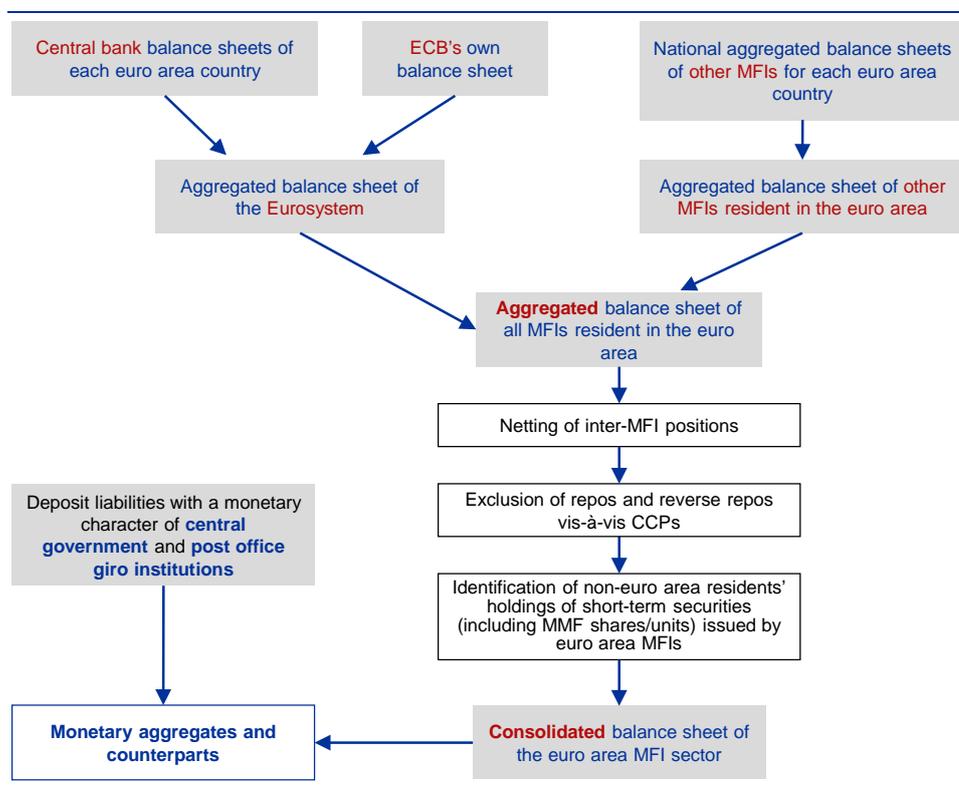
The diagram below outlines the process leading from national submissions to the consolidated balance sheet of the euro area MFI sector and to the euro area monetary aggregates.

¹³⁶ The money-holding sector refers to euro area residents excluding MFIs and central government. See Section 7.1.3.1.

¹³⁷ This adjustment of the monetary and credit aggregates for repo and reverse repo positions with CCPs is incorporated as from the reference period June 2010. See also “The adjustment of monetary statistics for repurchase agreement transactions with central counterparties”, Box 3, *Monthly Bulletin*, ECB, September 2012, p. 28.

Figure 5

Derivation of the consolidated balance sheet of the euro area MFI sector



7.1.3 From the euro area consolidated balance sheet to monetary aggregates and counterparts

7.1.3.1 Monetary aggregates

For euro area monetary statistics, the **money-holding sector** comprises all non-MFIs resident in the euro area except central government, i.e. households, non-financial corporations, financial corporations which are not MFIs, state government, local government and social security funds. Central government is considered to be a **money-neutral sector**, so central government holdings of monetary assets issued by MFIs (the deposits that central government holds with MFIs and central government holdings of other monetary instruments issued by MFIs) are not counted as holdings of the money-holding sector. However, central government liabilities with a monetary character are included in monetary aggregates.

The liabilities side of the consolidated balance sheet therefore provides the basis for the calculation of monetary aggregates. The liability breakdowns of the MFI sector allow different degrees of moneyiness to be distinguished, and monetary aggregates are derived by adding to these monetary liabilities certain short-term deposit liabilities of central government (national savings accounts and treasury accounts)

and of POGIs held by the money-holding sector which have similar characteristics to short-term bank deposits.¹³⁸

A monetary aggregate can be defined as the sum of currency in circulation plus the outstanding amounts of certain financial instruments which have a high degree of moneyness or liquidity in a broad sense. The Eurosystem has defined a narrow (M1), an intermediate (M2) and a broad aggregate (M3). These aggregates differ with respect to the degree of moneyness of the financial instruments included.

The table below shows the definitions of the euro area monetary aggregates comprising liabilities issued by the MFI sector and by entities in the central government sector and certain POGIs in the euro area. These aggregates include only positions of the euro area money-holding sector held with MFIs resident in the euro area. Holdings by euro area residents of liquid assets denominated in foreign currency can be close substitutes for euro-denominated assets, and the monetary aggregates include them if they represent liabilities issued by MFIs resident in the euro area.

Table 5
Definition of euro area monetary aggregates

Liabilities ¹³⁹	M1	M2	M3
Currency in circulation	x	x	x
Overnight deposits	x	x	x
Deposits with agreed maturity up to 2 years		x	x
Deposits redeemable at notice up to 3 months		x	x
Repurchase agreements			x
MMF shares/units			x
Debt securities issued by MFIs with a maturity of up to 2 years			x

M1 (narrow money) comprises currency in circulation (banknotes and coins) and balances that can immediately be converted into currency or used for cashless payments (overnight deposits).

M2 (intermediate money) comprises M1 plus deposits with original maturities of up to two years and deposits redeemable at notice up to three months. Depending on their degree of moneyness, such deposits can be converted into components of narrow money, but in some cases there may be restrictions such as the need for advance notification, delays, penalties or fees. The definition of M2 reflects the particular interest in analysing and monitoring a monetary aggregate that includes a wide range of other deposits in addition to currency and overnight deposits.

¹³⁸ These corrections for the short-term deposit liabilities of central government and certain post office giro institutions (classified as non-financial corporations, S.11 – see Article 1(2) of Regulation ECB/2013/39) are significant for only a few euro area countries. In most euro area countries post office giro institutions have MFI status, and as such their deposit liabilities are already included in NCBs' returns as part of the national aggregated balance sheet of other MFIs.

¹³⁹ Liabilities of the money-issuing sector and central government and certain post office liabilities with a monetary character held by the money-holding sector.

M3 (broad money) comprises M2 plus marketable instruments issued by the MFI sector. Certain money market instruments, in particular MMF shares/units and repurchase agreements, are included in this aggregate. M3 also includes bonds issued by MFIs with an original maturity of up to two years. A high degree of liquidity and price certainty make these instruments close substitutes for deposits. Their inclusion means that M3 is less affected by substitution between various liquid asset categories than narrower definitions of money and is therefore more stable.

Longer-term liabilities of MFIs are excluded from the definition of M3 as they are regarded more as portfolio instruments than as a means of carrying out transactions. Nevertheless, they may be regarded as substitutes for some of the components of M3, at least as they approach redemption.

7.1.3.2 Counterparts of monetary aggregates

The consolidated balance sheet also provides the basis for regular analysis of the **counterparts of M3**, i.e. all items other than M3 on the consolidated balance sheet (on both the assets and the liabilities side) rearranged to “explain” (in the statistical sense) changes in broad money in an analytically useful way.

The relationship between M3 and its counterparts rests on an accounting identity. Using the balance sheet identity, the monetary aggregate M3 can be presented in terms of other components of the MFI balance sheet as per the following figures.

Table 6
Schematic consolidated balance sheet of euro area MFIs

Assets	Liabilities
Credit to euro area residents	M3 ¹⁴⁰
	Longer-term financial liabilities
External assets	External liabilities
Other assets (including non-financial assets)	Other liabilities (including MFI deposits placed by central government)

Table 7
M3 and counterparts

$M3 \equiv \text{credit to euro area residents} + \text{net external assets} - \text{longer-term financial liabilities} + \text{other counterparts (net)}$	[7.1.1]
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Credit is defined as loans granted to non-MFI euro area residents plus MFI holdings of securities issued by non-MFI euro area residents. Since securities can be seen as an alternative source of funds to loans, this definition provides fuller information on the amount of financing supplied to the economy by the MFI sector than a narrow definition comprising only loans. It is worth noting that unlike the widely used concept

¹⁴⁰ M3 liabilities of MFIs only, i.e. excluding deposits of a monetary character of post office giro institutions and central government.

of credit as loans and debt securities (based on the concept of a creditor-debtor relationship), credit in the context of monetary statistics also includes equities and non-MMF investment fund shares/units.

Net external assets are defined as external assets held by euro area MFIs minus external liabilities of MFIs. External assets are holdings of cash in currencies other than euro, holdings of securities issued by non-residents of the euro area, loans to non-residents of the euro area (including banks), gold and gold receivables (monetary gold), and receivables from the IMF (including SDRs) held by the Eurosystem. External liabilities are deposits held by non-residents of the euro area with euro area MFIs (including any “loans” made by non-residents of the euro area to euro area MFIs, which by convention are recorded on the MFI balance sheet as deposits), holdings by non-residents of the euro area of MMF shares/units and of debt securities with a maturity of up to two years issued by MFIs in the euro area, as well as “counterparts of SDRs” held by the Eurosystem. External assets and liabilities may be denominated in euro or in foreign currency, the key factor is that they represent claims on or liabilities to non-residents of the euro area.¹⁴¹

Longer-term financial liabilities are deposits placed by the money-holding sector and held by euro area MFIs. They are deposits with agreed maturity over two years, deposits redeemable at notice over three months, debt securities issued by euro area MFIs with an original maturity of over two years (including, for practical reasons, holdings of such instruments by non-residents of the euro area, which should be more properly regarded as external liabilities, but for which no estimates are currently made), and the capital and reserves of the MFI sector.

Holdings against central government include deposits placed with MFIs by euro area central governments, and MMF shares/units and MFI debt securities up to two years held by central government and POGIs (which have been netted from M3).

The item **other counterparts (net)** is a net asset position comprising all remaining items on the consolidated balance sheet. It can be broken down into:

- non-financial assets of MFIs, e.g. buildings and commodities;
- remaining assets minus remaining liabilities, which include a variety of items such as financial derivative positions, amounts receivable/payable in respect of suspense and transit items, accrued interest receivable/payable on loans and deposits, dividends to be received/paid, amounts receivable/payable not related to the main MFI business, the asset counterpart to coins legally issued by central government, and net amounts payable in respect of the future settlement of transactions in securities (see also Section 4.10);
- reverse repos minus repos, where the agreements are with euro area CCPs;
- a notional entry to balance the short-term deposit liabilities of central government and POGIs which are included in M3;

¹⁴¹ See “The external dimension of monetary analysis”, *Monthly Bulletin*, ECB, August 2008, p. 71.

- the “excess of inter-MFI liabilities” (entered with a negative sign), which is the residual resulting from the netting of reported inter-MFI liabilities and assets.

In the presentation of the counterparts of M3, the items “other counterparts (net)” and “holdings against central government” (entered with a negative sign) are combined and referred to as **remaining counterparts**.

Movements in individual counterparts of M3 often relate to changes in M3. For example, suppose that an MFI grants a loan for 100 to a non-financial corporation, which keeps the money on its current account to meet future payments. This will translate to an increase of 100 in M3:

Table 8

Assets		Liabilities	
Credit to euro area residents	+100	M3	+100
External assets	-	External liabilities	-
Other assets	-	Other liabilities	-

Changes in M3 counterparts may not be reflected in changes in M3, however. Suppose, for instance, that euro area residents are granted a loan by a euro area MFI for 100, but then use the borrowed funds to buy foreign assets (e.g. US government bonds, or the dollars needed to buy them in the US market) from euro area MFIs. As these foreign assets represent external assets of euro area MFIs, in this case the increase in the item “credit to euro area residents” is matched by a decrease in MFI net external assets – the observed changes in counterparts are connected and offsetting, meaning there is no impact on M3:

Table 9

Assets		Liabilities	
Credit to euro area residents	+100	M3	-
External assets	-100	External liabilities	-
Other assets		Other liabilities	-

The measures of growth of euro area monetary aggregates and counterparts are always based on transactions data and therefore exclude changes in balance sheet amounts arising from revaluations, reclassifications and any other non-transactional influences. The methods used to calculate transactions and measures of growth are explained in Section 7.3 below.

7.1.4 National contributions to euro area money stock and counterparts and their relationship to national aggregates

National monetary aggregates before adoption of the euro

Before entry into the Monetary Union, the money stock in a euro area country will have comprised national currency in circulation (excluding holdings by MFIs), holdings by residents of certain types of deposit with resident MFIs and – though of negligible importance in some countries – holdings by residents of certain liquid marketable claims on resident MFIs. Monetary aggregates and their counterparts could be readily measured from balance sheet data supplied by the NCB and other resident MFIs.

National counterparts of national broad money (M3) before adoption of the euro

The main counterparts are domestic credit and net foreign assets (the “external” counterpart). Before entry into the euro area, in national monetary statistics these items were MFI (including NCB) lending to residents in all forms (including the acquisition of securities), and lending in all forms to non-residents less all liabilities to non-residents.

Euro area M3 and counterparts

As explained above, broad money (M3) for the euro area as a whole consists of euro banknotes and coins in circulation outside the euro area MFI sector, deposits held by euro area residents (other than MFIs and central government) with MFIs anywhere in the euro area, and euro area residents’ holdings of certain liquid marketable securities issued by MFIs anywhere in the euro area, including shares/units issued by MMFs.

In euro area statistics, the equivalent of the “domestic credit” counterpart of M3 is lending in all forms (including through the acquisition of securities) by MFIs in the euro area (including the Eurosystem) to euro area residents other than MFIs, whether they are domestic residents or residents of other euro area countries. The “external” counterpart consists of euro area MFIs’ net claims on non-residents of the euro area.

National contributions to euro area M3 and counterparts

The national contributions to euro area M3 are not the same as national monetary data before entry into the euro area. Before entry into the euro area, national monetary aggregates comprised instruments issued by domestic MFIs and held by the domestic money-holding sector. The concept of residency changes for national contributions to euro area aggregates. For each euro area country, the national contribution to euro area aggregates relates to the monetary instruments issued by MFIs resident in the country and held by the money-holding sector throughout the euro area (i.e. by residents of the same country and residents of all other euro area countries). Similarly, the national contributions to counterparts of M3 reflect a euro area rather than a national residency perspective.

For various reasons, it is not possible to calculate how much of the euro area money stock is held by residents of an individual euro area country. Instead, NCBs provide to the ECB, and may publish, their country's national contribution to euro area monetary statistics based on resident MFIs' balance sheets, including information on reclassifications and valuation changes, to enable transactions to be calculated. Similarly, they may publish the national contribution to at least the "credit to euro area residents" counterpart of euro area M3.

In conceptual terms there is no fundamental difference between compiling a monetary aggregate and its counterparts for a single country or for the euro area. In practice, however, certain issues do need to be considered. The first concerns the accounting practice for currency in circulation. The second concerns the identification of holders (domestic, residents of other euro area countries or the rest of the world) of negotiable debt instruments (including shares/units of MMFs) issued by MFIs in individual euro area countries.

National contributions to the banknotes and coins component of euro area monetary aggregates

Before adoption of the euro, the amount of currency issued by an NCB, minus amounts held by resident MFIs, was in most cases a good measure of the national currency in circulation with resident money-holding sectors (though in Germany, significant amounts of Deutsche Mark were known to be held by non-residents). In the euro area, under the banknote allocation key the share of each NCB in the total issue of banknotes by the Eurosystem is deemed to be that central bank's share in the paid-up capital of the ECB, adjusted for a notional 8% of the total issue which is attributed to the ECB itself. The accounting practice takes this form because euro banknotes are a liability not of the central bank which happens to issue them but of the Eurosystem as a whole. The banknote allocation key determines the amount recorded as banknotes issued within "currency in circulation" on the liabilities side of the NCB's balance sheet, both in the NCB's (usually weekly) financial statement and in its monthly MFI balance sheet return (Part 4 of Annex II to Guideline ECB/2014/15). An individual NCB may issue more or less than this amount depending on demand, with the excess or shortfall appearing on the NCB's balance sheet as a liability to or claim on the Eurosystem under "remaining liabilities" or "remaining assets" (see also Section 4.10).

The numerical example below (which ignores the currency issue of other Eurosystem central banks and the 8% notionally allocated to the ECB) helps to explain the accounting practice.

Example V **Determining euro banknotes issued**

Consider two national central banks, NCB A and NCB B, and suppose that at time t their balance sheets have a very simple structure, with no currency in issue and balances on the current accounts of commercial banks (CB) matched by holdings of gold:

NCB A			
Assets		Liabilities	
		Currency	-
Gold	200	CB current accounts	200
Remaining assets	-	Remaining liabilities	-

NCB B			
Assets		Liabilities	
		Currency	-
Gold	300	CB current accounts	300
Remaining assets	-	Remaining liabilities	-

Now suppose that the two NCBs have equal shares in the capital of the ECB, and that the banknote allocation key attributes a banknote issue of 100 to each of them. NCB A actually issues 80, while NCB B issues 120. Deposits of commercial banks with NCB A fall by 80 as they buy the banknotes from the NCB, but on its balance sheet the NCB records an increase of 100 (the banknote allocation key amount) in its liabilities in the form of currency. Its liabilities have therefore increased by 20 (net). Conversely, NCB B, which also records an increase of 100 in liabilities in the form of currency, sees its liabilities to resident commercial banks fall by 120 – an overall decrease of 20 in its liabilities. Assets have not changed in either NCB. NCB A's liability in respect of the 200 banknotes issued in total is indeed 100, i.e. the amount of the banknote allocation, and not the 80 which it happens to have issued. Accordingly, NCB A enters 20 as a claim on the Eurosystem (under “remaining assets”) to maintain equilibrium on its balance sheet. Similarly, NCB B's true liability in respect of the 200 banknotes issued in total is 100 and not 120, so NCB B enters 20 as a liability to the Eurosystem (under “remaining liabilities”) to maintain equilibrium on its balance sheet. At time $t+1$ the two balance sheets will have the following structure:

NCB A			
Assets		Liabilities	
		Currency	100
Gold	200	CB current accounts	120
Remaining assets	20	Remaining liabilities	-

NCB B			
Assets		Liabilities	
		Currency	100
Gold	300	CB current accounts	180
Remaining assets	-	Remaining liabilities	20

Aggregated across the Eurosystem (including the notional 8% of the issue attributed to the ECB), the banknote issue is therefore correct and intra-Eurosystem positions cancel out. The consequence is that in the national data submitted by NCBs to the ECB, the item “currency in circulation” is a notional amount and does not measure the amount actually put into circulation by the NCB. The amount of euro currency in the hands of residents of the euro area country concerned may be different again, since large amounts of euro banknotes may be brought into the country by tourists and other visitors, taken out in the course of visits abroad, or cross the border in the form of remittances, with no direct way of measuring any of these flows.

In contrast to banknotes, which are a liability of the Eurosystem, in most euro area countries the legal issuer of euro coins is the central government rather than the central bank. However, euro coins in circulation are part of monetary aggregates and so are by convention always included under the liability category “currency in circulation” on the central bank balance sheet (see also Section 4.2.2). As with banknotes, aggregation across the Eurosystem gives the correct amount of euro coins issued.

A euro area country’s contribution to the change in the banknote and coin component of the euro area consolidated balance sheet and monetary aggregates is the NCB’s recorded currency in circulation minus holdings of euro banknotes and coins (“vault cash”) reported by other MFIs resident in that country.¹⁴² The national contribution in this category may be negative, as it is conceivable that resident MFIs may report larger holdings of currency than the NCB’s share in the total amount issued. Although highly unlikely, this scenario illustrates the fundamental difference at national level between the accounting practice for banknotes and coins before and after adoption of the euro.

National contributions to the bank deposits component of euro area monetary aggregates

National contributions to the bank deposits component of euro area M3 come directly from the balance sheets of resident MFIs. Note, however, that the domestic resident share of this is not the full share of the country’s residents in the deposit component

¹⁴² Note that this is one reason why “banknotes and coins” differs from the “currency in circulation” component of monetary aggregates. The former measures banknotes and coins put into circulation by the Eurosystem, while the latter measures circulation outside the MFI sector – i.e. excluding vault cash held by banks as part of their day-to-day business. Other reasons for differences between the two statistics relate to the treatment of collector coins and legacy currency once a new member joins the euro area. See Section 4.2 for further information.

of euro area M3, since they may also hold deposits with MFIs elsewhere in the euro area (country-by-country information on such cross-border holdings is available under the quarterly reporting requirements of Regulation ECB/2013/33).

National contributions to the components of euro area M3 overnight deposits, deposits with agreed maturity up to two years and deposits redeemable at notice up to three months therefore comprise the corresponding deposits denominated in euro and in currencies other than euro placed by the euro area money-holding sector with MFIs (i.e. the NCB and all other MFIs) and central government (and possibly also the post office) in the euro area country concerned. The series for each euro area country is constructed by aggregating the amounts deposited with resident MFIs and central government (and the post office where applicable) by the euro area money-holding sector.

National contributions in the form of repos comprise claims of the euro area money-holding sector on domestic MFIs (including NCBs) related to repurchase agreements denominated in euro and in currencies other than euro.¹⁴³ Based on the assumption that repos and reverse repos conducted via euro area CCPs are mostly transactions made by euro area MFIs and non-residents of the euro area, which are not part of the money-holding sector, a euro area country's national contribution to the repo component excludes repos with euro area CCPs (see also Section 7.1.2).

National contributions to the negotiable monetary instruments component of euro area monetary aggregates

The national share of the negotiable monetary instruments component of euro area M3 (debt securities issued with a maturity of up to two years and MMF shares/units) bears some resemblance to the share of currency in circulation, in the sense that the holders of such paper and their residency are difficult to identify accurately. However, estimates of non-resident holdings are made where actual data are not available. The estimated holdings of non-residents of the euro area are therefore excluded from M3. In addition, the holdings by resident MFIs and central government of negotiable instruments issued in all euro area countries are deducted to derive the national contributions to the corresponding euro area aggregates.

Holdings by the euro area money-holding sector of debt securities with an original maturity of up to two years and of shares/units issued by MMFs form part of euro area M3 provided that the instruments are issued by MFIs resident in the euro area. Such holdings by residents of an individual euro area country (like their holdings of banknotes and coins) are not directly observable via the MFI reporting sector. MFIs issue the instruments in the first place, but since such instruments may frequently be traded in secondary markets, the initial holder will often not be the current holder. However, Guideline ECB/2014/15 requests a geographical breakdown of the holders into domestic, other euro area countries and rest of the world so that holdings by non-euro area residents can be excluded from M3. Where the data available to the

¹⁴³ Central governments and post office giro institutions do not report series for repurchase agreements.

NCBs are not deemed reliable, the ECB makes estimates based on data from other sources.¹⁴⁴

Since MFIs in some euro area countries rarely issue such instruments but may hold instruments issued by MFIs in other euro area countries, the national contribution to this component of M3 may be negative. The approach adopted shows once again that the compilation procedures provide only national contributions to the euro area aggregates, and that these cannot be used as proxies for the national share of holdings of euro area M3 instruments.

To summarise the above, instead of national monetary aggregates Eurosystem NCBs typically publish the contribution of resident MFIs (including the NCB itself) to the euro area aggregates. This comprises:

- (i) the notional issue of euro currency by the NCB according to the banknote allocation key, and its issue of euro coins, less holdings of euro banknotes and coins reported by resident MFIs;
- (ii) deposits of the kind included in euro area monetary aggregates held by domestic residents and by residents of other euro area countries with resident MFIs, including repos¹⁴⁵ but excluding any deposits held by central governments and MFIs (since such deposits are excluded from the ECB's monetary aggregates);
- (iii) any marketable instruments of the kind included in euro area M3 issued by resident MFIs, less estimated holdings by non-residents of the euro area and less holdings by (resident) central governments and by resident MFIs of such instruments issued by MFIs resident anywhere in the euro area.

National contributions to the credit counterpart of euro area M3

The national contributions to the credit counterpart in euro area monetary statistics are readily obtained from MFI balance sheet data, which show resident MFIs' loans to euro area residents other than MFIs and MFIs' acquisition of securities in all forms issued by euro area residents other than MFIs. National contributions to credit to general government and credit to other euro area residents (also called credit to the private sector in monetary statistics) are therefore obtained as the total amount of loans provided by domestic MFIs to (i) general government anywhere in the euro area and (ii) other euro area residents,¹⁴⁶ and of holdings by domestic MFIs of securities in all forms issued by euro area residents in these categories.

¹⁴⁴ For Germany, Ireland and the Netherlands data is only available on total debt securities issued, with no data on non-residents' holdings. For these countries, the ECB derives non-residents' holdings using monthly data from external data providers. For more details see "Adjustments of M3 for holdings of negotiable instruments by non-residents of the euro area", *Monthly Bulletin*, ECB, November 2001, pp. 10-13.

¹⁴⁵ Excluding repos conducted through euro area CCPs.

¹⁴⁶ In other words, financial corporations other than MFIs, non-financial corporations and households. See Section 2.3 on the institutional sectors.

National contributions to the external counterpart of euro area M3

In national monetary statistics the external counterpart of M3 comprises net external assets (claims in all forms on all non-domestic residents minus liabilities to them). National contributions to the external counterpart in euro area monetary statistics are resident MFIs' claims on non-residents of the euro area minus liabilities to them. Resident MFIs' claims on non-residents of the euro area are readily available, since reporting MFIs will know the residence status of their debtors. They can also identify deposit liabilities to non-residents of the euro area. It is much harder for them to identify the holders of negotiable instruments which they have issued (certificates of deposit, bank bonds, etc.), so it is also harder for the NCBs to calculate net claims of resident MFIs on non-residents of the euro area. NCBs and the ECB estimate non-resident holdings of these instruments, at least partly, as discussed above.

For national contributions to the external counterpart in euro area monetary statistics, external assets of the NCBs and other MFIs comprise their loans to non-residents of the euro area, their holdings of MMF and non-MMF investment fund shares/units, debt securities and equities issued by non-residents of the euro area, and their holdings of cash denominated in currencies other than euro. In addition, gold and gold receivables and receivables from the IMF are included from the NCB balance sheet.

External liabilities of the NCBs and other MFIs comprise deposits placed with them by non-residents of the euro area and holdings by non-residents of the euro area of MMF shares/units and debt securities with a maturity of up to two years issued by resident MFIs. Since no data are available on whether resident holders of debt securities with an original maturity of over two years issued by resident MFIs are residents or non-residents of the euro area, such instruments are not included in external liabilities (see also Section 8.3). In addition, the counterpart of SDRs is included from the NCB balance sheet.

Section 8.3 on the monetary presentation of the balance of payments describes how the external counterpart of euro area M3 relates to developments in the euro area balance of payments.

National contributions to the longer-term financial liabilities counterpart of euro area M3

Longer-term financial liabilities comprise deposits with agreed maturity over two years, deposits redeemable at notice over three months, debt securities with an original maturity of over two years and consolidated capital and reserves.

National contributions for the various types of longer-term deposit are the total amounts placed with resident MFIs by the euro area money-holding sector. MFI balance sheet data allow the series to be constructed by aggregating the amounts deposited by the euro area money-holding sector with domestic MFIs.

National contributions for debt securities with a maturity of over two years, in euro and in currencies other than euro, are the total issuance of longer-term debt securities by domestic MFIs, net of their holdings of such debt securities issued by

MFIs resident in the whole euro area. In contrast to debt securities with an original maturity of up to two years, no information is currently available on holdings of longer-term instruments by non-residents of the euro area, so amounts are included in this category rather than in external liabilities where they more properly belong (see Section 8.3).

National contributions for capital and reserves comprise resident MFIs' total liabilities in the form of capital and reserves, net of their holdings of shares issued by MFIs resident in the whole euro area.

Negative national contributions are possible for debt securities and, though highly unlikely, for capital and reserves.

7.2 Financial transactions

7.2.1 Derivation of financial transactions

The ESA 2010 defines a transaction as “an economic flow that is an interaction between institutional units by mutual agreement or an action within an institutional unit that it is useful to treat as a transaction, often because the unit is acting in two different capacities”. Financial transactions comprise the net acquisition of financial assets or the net incurrence of liabilities for each type of financial instrument during a reporting period.¹⁴⁷ Financial transactions covering each item specified in Regulation ECB/2013/33¹⁴⁸ are calculated on a net basis, i.e. there is no requirement to identify gross financial transactions or turnover. In line with international statistical standards, transactions are calculated by taking, for each asset and liability item, the difference between stock positions at end-of-period reporting dates and then removing the effect of developments that are not the result of transactions, i.e. other changes. Other changes are grouped into two main categories: reclassification adjustments and revaluation adjustments.¹⁴⁹ Although the Regulation requires data to enable transactions to be derived, it actually deviates to some extent from the ESA concept of financial transactions (see Section 2.5 and Chapter 5).

NCBs report reclassification adjustments and revaluation adjustments (flow adjustments) to the ECB so that these non-transaction effects can be removed when calculating transactions. The revaluation adjustments reported by NCBs consist of

¹⁴⁷ This is in accordance with the ESA 2010 and other international statistical standards.

¹⁴⁸ Regulation (EU) No 1071/2013 of the European Central Bank of 24 September 2013 concerning the balance sheet of the monetary financial institutions sector (recast) (ECB/2013/33) (OJ L 297, 7.11.2013, p. 1).

¹⁴⁹ The definition and classification of *other changes* is largely consistent with the ESA 2010. *Reclassification adjustments* are broadly equivalent to “other changes in the volume of assets and liabilities” (K.1-K.6), whereas *revaluation adjustments* largely correspond to “nominal holding gains and losses” (K.7). One important deviation in MFI balance sheet statistics concerns the inclusion of loan write-offs within “revaluations”, whereas in the ESA 2010 (and in the balance of payments and international investment position) they are regarded as “changes in volume” (6.14 (b) in the ESA 2010). Consistency with the ESA is easily achieved, however, because write-offs/write-downs is the only entry in the column *revaluation adjustments* for the item “loans”. See also Sections 5.4 and 4.3.10.

write-offs/write-downs of loans and revaluation adjustments owing to price changes. Revaluation adjustments owing to exchange rate changes are calculated by the ECB. In some countries MFIs report transactions directly to the NCB using one of the methods described in Section 5.2, in which case revaluation adjustments are compiled by the NCB as a residual.

Definition of financial transactions in MFI balance sheet statistics:

$$T_t = (L_t - L_{t-1}) - C_t - V_t - E_t \quad [7.2.1]$$

where

T_t = Transactions in period t

L_t = Outstanding amounts at the end of period t

C_t = Reclassification adjustment in period t

V_t = Revaluation adjustment in period t

E_t = Exchange rate adjustment in period t

7.2.2 Revaluation adjustments due to exchange rate changes

For the purposes of submitting statistical data to the ECB, the NCBs ensure that asset and liability positions denominated in foreign currencies are converted into euro using market exchange rates prevailing on the date to which the data relate (see also Section 2.5.4).

Revaluation adjustments owing to exchange rate changes (or exchange rate adjustments) comprise changes in the euro value of balance sheet items denominated in currencies other than euro arising from movements in exchange rates (i.e. from changes in the value of the foreign currency against the euro) between reporting dates. These changes represent holding gains/losses and are not financial transactions.

As indicated in Annex IV to Guideline ECB/2014/15, the ECB removes the effect of exchange rate movements against the euro using a standardised method of adjustment for all relevant items, unless exchange rate adjustments are provided by NCBs (i.e. in cases where more detailed information is available at national level, thus leading to better estimations). In particular, the adjustment is calculated for all items except those for which no breakdown by currency of denomination is available.¹⁵⁰ This implies that, on the assets side, holdings of shares and other equity, MMF shares/units, non-financial assets and remaining assets do not undergo exchange rate adjustment. On the liabilities side, capital and reserves are not

¹⁵⁰ For some items, currency information is not available at the same level of detail with regard to the sector, maturity or area of counterparty. Adjustments can be estimated using standard assumptions, however, as explained later in this section.

adjusted for changes in exchange rates, while remaining liabilities are used as a balancing item and as such are allocated any discrepancy between the total adjustment of assets and the total adjustment of liabilities. These adjustments have been made since reference month September 1997 and are calculated monthly for balance sheet items originally denominated in GBP, USD, JPY and CHF. No exchange rate adjustment is made for balances in other currencies. NCBs calculate revaluation adjustments owing to exchange rate changes for their “receivables from the IMF” position denominated in SDRs and transmit these to the ECB within the revaluation adjustment series, or within the exchange rate adjustment series if the NCB regularly transmits these. The same applies to the “counterpart of SDRs” position under liabilities. All exchange rate changes are calculated against the euro.

7.2.2.1 Derivation of the exchange rate adjustment

As mentioned above, instruments denominated in currencies other than euro are reported in euro, converted at the exchange rate prevailing on the balance sheet date. The derivation of the exchange rate adjustment for such instruments can in principle be divided into three steps.

In the first step, the outstanding amounts are converted back into the original currency of denomination. In other words, outstanding amounts at the end of the previous and current reporting periods are converted using the exchange rate prevailing at the time.

Step 1: Conversion of outstanding amounts into foreign currency

$$L_{t,FC}^* = \frac{L_{t,FC}}{e_{t,FC}} \quad [7.2.2]$$

$$L_{t-1,FC}^* = \frac{L_{t-1,FC}}{e_{t-1,FC}} \quad [7.2.3]$$

where

$t - 1$ = End of previous reporting period

t = End of current reporting period

$L_{t,FC}$ = Outstanding amount at time t expressed in euro, having FC as the original currency of denomination

$L_{t,FC}^*$ = Outstanding amount at time t converted to the original currency of denomination FC

$e_{t,FC}$ = Nominal euro/FC exchange rate at time t

In the second step, the first differences in the outstanding amounts denominated in foreign currency (as derived in step 1) are computed and converted back into euro using the average value of the daily exchange rates during the reporting period. Using the average rate for this conversion assumes that the transactions were evenly spread over the period.

Step 2: Computation of first differences and reconversion into euro

$$\overline{e}_{t,FC} \cdot \Delta L_{t,FC}^* = \overline{e}_{t,FC} \cdot (L_{t,FC}^* - L_{t-1,FC}^*) \quad [7.2.4]$$

where

$\overline{e}_{t,FC}$ = Average of daily nominal exchange rate during the period from t-1 to t

Δ = First difference operator

Finally, the third step involves computing the exchange rate adjustment as the difference between the change in outstanding amounts as reported to the ECB in euro and the change in outstanding amounts converted into euro as calculated in step 2. Rearranging the terms in this last step (see calculations below) offers an additional interpretation of the exchange rate adjustment, which can be seen as the percentage deviation of the period average exchange rate from the end of period rate multiplied by the corresponding outstanding amounts, minus the same calculation performed at the end of the previous period.

Step 3: Computation of the exchange rate adjustment for each currency

$$E_{t,FC} = \Delta L_{t,FC} - \overline{e}_{t,FC} \cdot \Delta L_{t,FC}^* \quad [7.2.5]$$

or, equivalently, one could plug in steps 1 and 2 and then rearrange:

$$E_{t,FC} = - \left[\left(\frac{\overline{e}_{t,FC} - e_{t,FC}}{e_{t,FC}} \right) \cdot L_{t,FC} - \left(\frac{\overline{e}_{t,FC} - e_{t-1,FC}}{e_{t-1,FC}} \right) \cdot L_{t-1,FC} \right] \quad [7.2.6]$$

where

$E_{t,FC}$ = Exchange rate adjustment at time t

In MFI balance sheet statistics the procedure described above is applied to all eligible items and separately for balances in GBP, USD, JPY and CHF. The final adjustment is thus obtained as the sum of adjustments for each currency.

Total adjustment:

$$E_t = \sum_{FC} E_{t,FC}, \text{ for } FC \in \{GBP, USD, CHF, JPY\} \quad [7.2.7]$$

7.2.2.2 Nominal exchange rates

The nominal exchange rates used in the conversions are the ECB reference exchange rates (see also Section 2.5.4).

7.2.2.3 Stocks

The current MFI balance sheet reporting scheme limits the availability of some of the breakdowns needed to compute the exchange rate adjustment. In particular, it is not possible to identify monthly stocks for each of the four individual currencies, since

these breakdowns are only reported to the ECB quarterly and with a longer delay than for monthly series. In line with Regulation ECB/2013/33, the currency breakdowns reported monthly distinguish only between euro positions and positions denominated in all other currencies combined.¹⁵¹ The quarterly reporting scheme also includes a less detailed instrument and counterparty breakdown than the monthly series.¹⁵² In practice this means that currency breakdowns for some items, such as detailed maturity and counterparty sector breakdowns, are not available in either monthly or quarterly reporting data.

To overcome these limitations and calculate the exchange rate adjustments for those items to which the method described above cannot be directly applied (e.g. because of missing currency breakdowns in the reporting scheme), the ECB makes the following assumptions.

7.2.2.3.1 Assumption 1

The ratio of each balance sheet item denominated in GBP, USD, JPY or CHF to the total amount of the same item denominated in all foreign currencies combined is stable during each quarter. This assumption allows the ECB to estimate the intra-quarter development of outstanding amounts denominated in each of the four currencies, starting from the end-of-quarter positions in the four currencies and the monthly outstanding amounts of positions in all foreign currencies. The respective currency's share in all foreign currencies calculated from the latest available quarterly currency breakdowns is carried forward (assumed to remain constant) for the following three months until new quarterly data become available.

Assumption 1: Using quarterly currency information

$$L_{t,FC} = L_{t,non-EUR}^{T1} \cdot \left(\frac{L_{q,FC}^{T4}}{L_{q,non-EUR}^{T1}} \right) \quad [7.2.8]$$

where

t = End of month

q = End of preceding quarter

FC = Foreign currency

$T1, T4$ = Tables 1 and 4 of Regulation ECB/2013/33

¹⁵¹ Monthly data requirements are included in Table 1 of Regulation ECB/2013/33.

¹⁵² Quarterly data requirements related to currency breakdowns are included in Table 4 of Regulation ECB/2013/33.

7.2.2.3.2 Assumption 2

For each balance sheet item, the distribution of outstanding amounts across different currencies does not vary significantly between maturities and counterparty sub-sectors. Using this (admittedly bold) assumption, the ECB calculates the exchange rate adjustments for sectoral or maturity breakdowns, for which no currency information is available in the quarterly reporting scheme, by distributing on a proportional basis the adjustment computed for the closest aggregated item for which currency information is available.

Assumption 2: Allocation of the exchange rate adjustment to items without currency information

Suppose that currency information is available in the quarterly reporting scheme for a certain aggregated item (for which the exchange rate adjustment can therefore be derived as discussed above) but not for its constituent sub-items A and B. The exchange rate adjustment for these sub-items is then derived as:

$$E_t^{ItemA} = E_t^{AGGREGATE} \cdot \frac{L_t^{ItemA}}{L_t^{AGGREGATE}} \quad [7.2.9]$$

$$E_t^{ItemB} = E_t^{AGGREGATE} \cdot \frac{L_t^{ItemB}}{L_t^{AGGREGATE}} \quad [7.2.10]$$

where $L_t^{AGGREGATE} = L_t^{ItemA} + L_t^{ItemB}$

7.2.2.3.3 Adjustment of series for which no monthly currency split is available

The current monthly reporting scheme includes some series for which only total currency data (euro and foreign currency combined) are collected monthly. This in turn implies that assumption 1 is no longer sufficient for estimating an exchange rate adjustment for these items. In practice, the adjustment is calculated based on the further assumption that the shares of euro and non-euro-denominated positions in the total are also stable within the quarter. Using this assumption to modify equation [7.2.8], the first term on the right-hand side and the ratio's denominator are replaced by the item including all currencies combined.

7.2.2.3.4 Adjustment of series relating to money market fund shares/units issued

One special case regarding items for which no currency split is available from the monthly balance sheet is the issuance of MMF shares/units. In fact, the ECB does not collect any currency information on this item, as variations in the value of the shares/units owing to exchange rate movements depend on the currency denomination of the assets in which the fund invests rather than on the currency of issuance of the shares/units. As discussed in Section 5.3.2, the adjustment here is based on the proportion of non-euro-denominated assets held by the MMFs in their

total assets (as reported in the quarterly MMF balance sheet statistics).¹⁵³ For each of the four currencies concerned, a fictional series of non-euro-denominated outstanding amounts of MMF shares/units issued is derived using a modified version of equation [7.2.8]. In particular, the ratio in parentheses is derived on the basis of the currency split of the aggregated total assets of MMFs in the country concerned. The adjustment is then calculated in the standard way. Finally, the adjustment so derived is allocated to the non-resident holdings of MMF shares/units issued (based on the assumption that non-euro-denominated funds are held by non-residents of the euro area), thus insulating the monetary aggregates from the estimated exchange rate adjustment.

7.3 Index of notional stocks and growth rates

As explained earlier, the outstanding amounts at the end of each period reflect not only the cumulative effect of financial transactions but also instrument reclassifications and other breaks in series, changes in exchange rates, price fluctuations and loan write-offs/write-downs. However, most analyses of monetary and credit developments require data that exclude such non-transaction-related changes, especially when computing growth rates.

One way of computing growth rates that isolates changes in outstanding amounts arising purely from transactions is by means of a chain index series of notional stocks. A chain index series is an index series obtained by a recursive multiplicative equation. There are several ways to calculate this, but for the purposes of MFI balance sheet statistics and other financial statistics the ECB uses the chain calculation below to define the index of notional stocks.

Recursive definition of the index of notional stocks in MFI balance sheet statistics:

$$I_t = I_{t-1} \cdot \left(1 + \frac{T_t}{L_{t-1}}\right) \quad [7.3.1]$$

with the chain calculation starting from a base period, setting the index at 100.¹⁵⁴

where

I_t = Index of notional stocks at the end of period t

T_t = Transactions in period t

L_t = Outstanding amounts at the end of period t

The index of notional stocks in [7.3.1] is dimensionless, so the level of the index for any period depends only on the base period chosen for the chain calculation, the corresponding initial level and the month-on-month growth rates. Consequently, it

¹⁵³ MMF statistics, which are a subset of MFI balance sheet statistics, are collected under a different reporting scheme in accordance with Guideline ECB/2014/15 (see Section 7.6.1 below).

¹⁵⁴ Changes in the base period do not affect growth rates, only the level of the index.

does not represent any particular value actually observed for the corresponding series at that or any other point in time.¹⁵⁵

The rate of change of the index is a measure of growth in outstanding amounts which excludes the effect of non-transactions. Growth rates over any time span can be derived using the equations below.

Definition of growth rate based on index of notional stocks in MFI balance sheet statistics:

Annual growth rate (monthly data)

$$a_t = \left(\frac{I_t}{I_{t-12}} - 1 \right) \cdot 100 \quad [7.3.2]$$

Month-on-month growth rate (monthly data)

$$m_t = \left(\frac{I_t}{I_{t-1}} - 1 \right) \cdot 100 \quad [7.3.3]$$

Growth rate over time span s

$$g_{t,s} = \left(\frac{I_t}{I_{t-s}} - 1 \right) \cdot 100 \quad [7.3.4]$$

where

I_t = Index of notional stocks at the end of period t

It is also helpful to combine equations [7.3.1] and [7.3.4] when solving the recursion in [7.3.1]. In particular, this operation yields an equivalent, recursive equation for a growth rate that depends directly on the outstanding amounts and financial transactions series.

Definition of growth rate as function of outstanding amounts and transactions:

Growth rate over time span s

$$g_{t,s} = \left[\prod_{j=0}^{s-1} \left(1 + \frac{T_{t-j}}{L_{t-j-1}} \right) \right] \cdot 100 \quad [7.3.5]$$

¹⁵⁵ A notional stocks series which excludes the effect of non-transactions but preserves the dimension of the original stocks series may nonetheless be computed. For instance, choosing a level for the base period equal to the value of the respective balance sheet item would yield such a series. As a rule, however, the ECB does not publish such notional stocks series for the purposes of MFI balance sheet statistics, since they would only show the amount of the original balance sheet items at the base date and the divergence from actual outstanding amounts would grow over time. To avoid confusion, only actual stocks (unadjusted for the effects of non-transactions) and the corresponding indices of notional stocks [7.3.1] are published.

7.3.1 Euro area enlargement, MFI balance sheets and euro area monetary aggregates (stocks, transactions and growth rates)

This section describes the treatment of euro area enlargements in MFI balance sheet statistics and monetary statistics (see also Section 5.7.3 and Section 7.7).

For MFI balance sheet statistics, euro area series refer at each point in time to the changing composition of the euro area. In other words, they represent the aggregate of all EU Member States that had adopted the euro at the time to which the statistics relate. Outstanding amounts and transactions for the euro area for the last month before enlargement will therefore be compiled from the MFI balance sheet of the euro area in its pre-enlargement composition. Outstanding amounts and transactions for the euro area for the first month after enlargement and for subsequent months will be compiled from the MFI balance sheet of the euro area in its post-enlargement composition. This procedure implies that there is a shift in the level of euro area outstanding amounts at the time of enlargement. This break in the series should be considered as a statistical reclassification, however, and should therefore affect neither the flow nor the growth rate of the various components of the euro area (aggregated or consolidated) balance sheet or of the monetary statistics derived from them.

7.3.1.1 Calculation of the euro area flow at the time of enlargement

The following example illustrates the impact of a new country joining the euro area on the calculation of euro area transactions in MFI balance sheet statistics. Although the example refers to the January 2015 euro area enlargement involving Lithuania, it can be easily generalised.

Using the same notation introduced in Section 7.1, the euro area flow for January 2015 (the time of enlargement) can be defined as a special case of equation [7.2.1].

Euro area financial transactions at the time of enlargement:

$$T_{Jan15}^{Eur19} = (L_{Jan15}^{Eur19} - L_{Dec14}^{Eur18}) - C_{Jan15}^{Eur19} - V_{Jan15}^{Eur19} - E_{Jan15}^{Eur19} \quad [7.3.6]$$

Two features make this flow a special case. First, the difference in outstanding amounts refers to a different composition of the euro area across the respective periods and therefore includes a level shift which has to be accounted for. In turn, the reclassification term C_{Jan15}^{Eur19} should include two components:

- (i) an enlargement-related component to correct the level shift;
- (ii) other adjustments occurring in the period and unrelated to the euro area enlargement (including in Lithuania).

In particular, the enlargement-related component (i) of C_{Jan15}^{Eur19} can be decomposed into three main parts: (i)(a) Lithuanian MFIs' outstanding amounts, (i)(b) positions of MFIs resident in the former euro area 18 vis-à-vis Lithuanian counterparties (these

positions should be reclassified from “rest of the world” to “other euro area” counterparties – reclassification by area) and (i)(c) positions of MFIs resident in the former euro area 18 denominated in Lithuania’s former national currency (the litas). The latter is only relevant for a subset of items on the MFI balance sheet (these items should be reclassified from being denominated in “all other currencies combined” to being denominated in “euro” – reclassification by currency). The enlargement-related components of the reclassification adjustment should relate to balance sheet positions at end-December 2014 (i.e. the previous month).

This decomposition of the euro area reclassification term at the time of enlargement explains why the data requirements set out in Section 5.7.3 are needed. The existing euro area countries are required to send the reclassification adjustments under points (i)(b) and (i)(c) for the reference period in which the enlargement takes place. The Member States joining the euro area should not transmit reclassifications for outstanding amounts (point (i)(a) above), however, as these are made available indirectly by transmitting historical MFI balance sheet data.

7.3.1.2 Calculation of the euro area index of notional stocks at the time of enlargement

To compute the index of notional stocks, a further correction is needed to ensure that the calculation is not distorted by the level shift at the time of enlargement. Using equation [7.3.1] to compute the chain index value at the time of enlargement would produce a mismatch in the updating factor in brackets between the numerator, which refers to the new composition of the euro area, and the denominator, which refers to the pre-enlargement composition of the euro area. This would also distort the growth rate, since this is derived from the percentage change in the chain index. To ensure the correct calculation of the updating factor in the chain index at the time of enlargement, the ECB introduces a denominator correction.

Denominator correction at the time of enlargement:

$$I_{Jan15} = I_{Dec14} \cdot \left(1 + \frac{T_{Jan15}^{Euro19}}{I_{Dec14}^{Euro18} + L_{Dec14}^*} \right) \quad [7.3.7]$$

I_t = Index of notional stocks at the end of period t

T_t = Transactions in period t

L_t = Outstanding amounts at the end of period t

L_t^* = Denominator correction for period t

The denominator correction corresponds to the enlargement-related level shift in the euro area aggregate. The denominator on the right-hand side of equation [7.3.7] can therefore be interpreted as a “notional” outstanding amount for the euro area as if it already included Lithuania in December 2014.

Finally, the method applied in the construction of the notional index series around the time of enlargement means the resulting euro area growth rates after enlargement reflect the gradual contribution of the new member's growth rate to euro area growth. For instance, the euro area annual growth rate in the first month after enlargement results in an (implicit) approximate weight of $1/12^{\text{th}}$ for the new member's contribution. This weight then increases to $2/12^{\text{ths}}$ in the second month after enlargement, and so on up to $12/12^{\text{ths}}$.¹⁵⁶

See Section 7.5 below and Section 8.1 for the treatment of enlargement in the context of seasonal adjustment and the Eurosystem's minimum reserves requirement, respectively.

7.4 Adjusted loans

This section presents the adjusted loans series that include an adjustment for sales and securitisation of loans derecognised from the balance sheet and for the impact of notional cash pooling positions resulting from cash management services provided by certain banks to corporate groups.¹⁵⁷ The ECB uses these adjusted series as the headline series for credit developments, since they provide a better view of lending to the real economy by euro area MFIs.

7.4.1 Adjustment for loan sales and securitisation

Securitisation, as defined in Section 4.3.11.1, involves the conversion of assets into marketable securities through the transfer of credit risk and the creation of liquid instruments out of normally illiquid loans. This is why the practice became an important element of some banks' business models up to 2007. With the onset of the financial crisis, however, most securitisation activity in the euro area was related to the need to create collateral for central bank borrowing. Instead of being placed with investors, the instruments resulting from the securitisation transactions were "retained" by banks. Loan disposals also take place in the context of banks restructuring their balance sheets, often by selling non-performing or impaired loans.

From a statistical perspective, securitisation and other loan transfers resulting in a change in the reported stocks on MFI balance sheets impede the proper analysis of lending to the real economy, as they affect outstanding loans reported by MFIs while the actual amount of financing received by the real economy remains unchanged.

¹⁵⁶ The description presented is an approximation, in that the implicit "weights" may not be exactly $1/12^{\text{th}}$, $2/12^{\text{ths}}$, etc. owing to the non-linearities implied by the chain index multiplicative form (see [7.3.4] and [7.3.5]). For most practical purposes, however, the approximation provides a fair depiction of the "smoothness" implied by the procedure. Note that for growth rates calculated over time span s , the same concept applies but $n/12$ is substituted by n/s . For example, if s is one month (i.e. to calculate the month-on-month growth rate), the weight of the new member is fully incorporated in the euro area growth rate in the first month after enlargement.

¹⁵⁷ The ECB has been publishing loans series adjusted for sales and securitisation since December 2008. These were replaced in July 2016 by adjusted loans series that also include an adjustment for the impact of notional cash pooling.

The adjustment for loan sales and securitisation takes into account the (net) impact of loan transfers at the time they take place, and also ongoing developments in derecognised loans (i.e. repayments of principal by borrowers) where data are available. Besides providing a more complete and accurate picture of lending to the real economy originated by euro area banks, this also provides comparability in statistics between countries that may have differing practices with regard to loan derecognition.

Adjusting loans for sales and securitisation utilises data collected on the following three components:

- (i) Impact of loan transfers on MFI balance sheets: these loan transfers are defined as disposals minus acquisitions of loans that have an impact on loans reported on MFI balance sheets. This definition covers all loans derecognised during the period, whether or not the outstanding amounts and repayments of those transferred loans are captured on an ongoing basis (see the components below).
- (ii) Outstanding amounts of derecognised loans: data on these are collected from euro area MFIs under Regulation ECB/2013/33 where the loans are still serviced by the MFIs. Some NCBs also provide available data for loans not serviced by MFIs (e.g. where the servicing of loans is performed by another part of the banking group) or for loans that have been transferred to non-MFIs in transactions other than securitisations (as specified in Guideline ECB/2014/15). Overall, this enables almost complete coverage of securitised loans that are derecognised, along with coverage of some other volumes of non-securitised derecognised loans.
- (iii) Transactions in derecognised loans excluding loan transfers: data on these transactions basically correspond to the principal repayments of derecognised loans (as for outstanding amounts, the reporting is covered by Regulation ECB/2013/33 and Guideline ECB/2014/15).

While Regulation ECB/2013/33 has been implemented with respect to the December 2014 reference period, NCBs and the ECB have compiled data on a comparable basis (usually going as far back as 2003) to provide long and consistent statistical series on loans to the euro area private sector, households and non-financial corporations.

7.4.2 Adjustment for notional cash pooling

Cash pooling is a bank service provided by some banks that allows corporates to externalise intragroup cash management. This can be a cheaper and more efficient way to manage cash than making inter-company loans between group entities. There are several types of cash pooling agreements that may be used for this purpose (see also Sections 4.3.7 and 4.4.7), but the most relevant in terms of the impact on MFI balance sheets is notional cash pooling.

In notional cash pooling, all accounts maintain a separate legal status and the participating entities are the direct counterparties of the bank. The pooling is performed by the bank, which provides liquidity to the counterparties in need by means of overdrafts, generally on condition that the “pool” is in surplus overall. As such, from an economic point of view these loans do not constitute a genuine provision of additional financing to the economy provided by the MFI sector.

In line with Regulation ECB/2013/33, notional cash pool positions should be reported on a gross basis and not netted against any other assets or liabilities. Consequently, notional cash pooling can lead to the cash pool participants building up positions in overnight deposits and short-term loans vis-à-vis MFIs. These positions can be large and often show sharp reversals, for instance when corporate groups decide to balance out positions in the pool.

Besides their limited informational value when analysing credit to the euro area private sector, notional cash pooling introduces volatility to month-on-month loan transactions and annual growth rates. As a result, in July 2016 the ECB began adjusting its headline loan series by excluding notional cash pooling positions.¹⁵⁸

The adjustment for cash pooling is incorporated into the adjusted loans series based on available data commencing in December 2014 through the following components:

- (i) the outstanding amounts of loans which relate to notional cash pooling positions are subtracted from total loans on the balance sheet;
- (ii) the transactions in loans relating to notional cash pooling are subtracted from total transactions in on-balance-sheet loans.

7.4.3 Derivation of the adjusted loans series

The adjusted loans are derived using the components specified above for the adjustments for loan sales and securitisation and for notional cash pooling. The equations for the derivation of their outstanding amounts and transactions are provided below:

Adjusted loans:

Outstanding amounts

$$L_t^{Adj} = L_t^{MFI} + L_t^{DR} + L_t^{NCP} \quad [7.4.1]$$

Transactions

$$T_t^{Adj} = T_t^{MFI} + N_t + T_t^{DR} - L_t^{NCP} \quad [7.4.2]$$

¹⁵⁸ The headline loans series previously only included an adjustment for loan sales and securitisation.

where

L_t^{Adj} = Outstanding amounts of adjusted loans at the end of period t

L_t^{MFI} = Outstanding amounts of loans on MFI balance sheets (unadjusted) at the end of period t

L_t^{DR} = Outstanding amounts of derecognised loans at the end of period t

L_t^{NCP} = Outstanding amounts of notional cash pooling loans on MFI balance sheets at the end of period t

T_t^{Adj} = Transactions in adjusted loans in period t

T_t^{MFI} = Transactions in loans on MFI balance sheets (unadjusted) in period t

N_t = Net transfers of loans off MFI balance sheets with derecognition (disposals minus acquisitions) in period t

T_t^{DR} = Transactions in derecognised loans excluding loan transfers (i.e. repayments of derecognised loans) in period t

T_t^{NCP} = Transactions in notional cash pooling loans in period t

7.5 Seasonal and calendar adjustment of MFI balance sheet statistics

The seasonal and calendar adjustment of time series involves estimating and removing fluctuations that occur in broadly similar recurrent patterns over the year (e.g. M1 is higher than average in December owing to the effect of Christmas bonuses and expenditure) or which are related to end-of-month calendar effects (e.g. end-of-month currency in circulation is higher on average when measured on a Friday, as a cash reserve is held for the weekend).

The main aim of these adjustments is to provide series from which short-term developments can be better interpreted by cleaning out easily foreseeable patterns that are assumed to be mostly devoid of economic information. In MFI balance sheet statistics, seasonal and calendar adjustments are carried out on the basis of the X-12-ARIMA software. The algorithm is based on a two-stage approach. The first stage (referred to as the RegARIMA part) models the time series on the basis of a Regression ARIMA model and delivers a pre-adjusted time series from which calendar effects and possible outliers have been removed. The second stage of the algorithm (referred to as the X-11 part) performs the seasonal adjustment of the pre-adjusted series.¹⁵⁹

¹⁵⁹ For a comprehensive review of the X-12-ARIMA algorithm, see the article “New capabilities and Methods of the X-12-ARIMA Seasonal Adjustment Program”, available on the [US Census Bureau's website](#).

7.5.1 Coverage of seasonal and calendar adjustment

The ECB currently publishes seasonally adjusted outstanding amounts, transactions and growth rates of the main euro area monetary aggregates and their counterparts. No seasonally adjusted series on national contributions to euro area aggregates are currently published, with the exception of seasonally adjusted data on loans to euro area households and non-financial corporations for a number of countries that are provided by the respective NCBs.

Euro area series can be adjusted directly or indirectly. A direct seasonal adjustment is obtained by applying the X-12-ARIMA algorithm directly to the non-adjusted time series. The adjustment is performed on a measure of the outstanding amounts corrected for non-transaction effects (e.g. index of notional stocks or cumulated flows). Seasonally adjusted series for outstanding amounts, transactions and growth rates are then derived on the basis of this output. By contrast, an indirect seasonal adjustment is obtained as a linear combination of other directly adjusted series, as illustrated by equation [7.5.2] below. In all cases the seasonal adjustment is carried out at the level of euro area series and not via the seasonal adjustment and aggregation of national contributions to euro area aggregates. The main reason for this approach is that euro area monetary aggregates refer to the consolidated balance sheet of the euro area MFI sector as a whole. This implies, for instance, that the levels of national contributions may turn negative (e.g. if a country's MFI sector holds more debt securities issued by euro area MFIs than it has issued itself). The identification of seasonal patterns in national contributions may also be affected by the volatility of the series (e.g. for small countries or for those countries where intra-euro area cross-border positions play a significant role). Finally, the length of national contributions for series referring to new euro area members may be insufficient to produce reliable results.

Direct and indirect adjustment in MFI balance sheet statistics:

Outstanding amounts and financial transactions

Let Y_t and Z_t represent the breakdowns of variable X_t , where $X_t^{NSA} = Y_t^{NSA} + Z_t^{NSA}$

The direct seasonal adjustment is not additive

$$X_t^{SA(direct)} \neq Y_t^{SA(direct)} + Z_t^{SA(direct)} \quad [7.5.1]$$

The indirect seasonal adjustment is additive

$$X_t^{SA(indirect)} = Y_t^{SA(direct)} + Z_t^{SA(direct)} \quad [7.5.2]$$

In MFI balance sheet statistics, the main reason for applying the indirect adjustment is to preserve additivity between seasonally adjusted aggregates and components and, in general terms, to comply with the balance sheet constraints in the adjusted format. Since direct seasonal adjustment is a non-linear operation on the data, it is not additive. Consequently, if a direct seasonal adjustment were to be applied to each aggregate and its components, the former would not equal the sum of the latter, as shown by equation [7.5.1].

The following criteria are used when choosing the series which are to be adjusted directly and those which are to be derived indirectly:

- (i) Regularity of the seasonal pattern: series with a regular seasonal pattern are more appropriate for direct adjustment than series with a volatile seasonal pattern.
- (ii) Stability of the weight of the component in the total: when the shares of the components change significantly over time and their seasonal patterns differ, direct adjustment of the aggregate is not suitable, so direct adjustment of the components is preferable. When the shares of the components change over time but there is a high degree of substitutability between them, however, direct adjustment of the aggregate is preferable (and one of the components is consequently derived indirectly as a residual).
- (iii) Length of the series: for short series, a higher level of aggregation of the series to adjust is preferable, as a seasonal pattern undistorted by outliers will then be better captured.

Seasonally adjusted values for the following euro area aggregates are available in the context of MFI balance sheet statistics:

- monetary aggregates and selected components and counterparts;
- sectoral breakdowns of MFI loans and deposits in M3;
- adjusted loans to euro area households and non-financial corporations (including national data provided by NCBs for several countries).¹⁶⁰

A detailed overview of the available time series, including start dates and the methods applied (direct or indirect adjustment), can be found on the ECB's website.¹⁶¹

7.5.2 First stage: RegARIMA modelling, outlier identification and calendar adjustment

The first stage of the algorithm models the time series on the basis of a user-defined ARIMA model with regressors (hence the name RegARIMA). This also entails the identification of and correction for outliers and, where specified, calendar effects. The rationale behind this pre-adjustment is that the quality and the stability of the seasonal adjustment estimates carried out in the next stage are much improved if these are based on a series which already takes special developments into account.

¹⁶⁰ These national seasonally adjusted data comprise outstanding amounts and transactions from 2003 onwards and are adjusted for loan sales and securitisation (for data up to 2010, adjustment for sales and securitisation is carried out on a best efforts basis using available information).

¹⁶¹ See the section on the seasonal adjustment of monetary statistics on the [ECB's website](#).

The RegARIMA model is also used to extend the series using forecasts and backcasts, allowing symmetric moving averages to be used in the second stage.

An outlier can be defined as a significant development observed in the evolution of a time series that is not believed to represent a change in the seasonal behaviour of the series, such as a one-off effect or a break in the series trend. For this reason, it is desirable that the series to be adjusted is corrected for such occurrences before the seasonal pattern is estimated. This avoids potential spillovers from the outliers (which are assumed to be non-seasonal events) into the estimated seasonal component. Once the second stage (seasonal adjustment) has been completed, the effect of the outliers removed in the first stage is added back in, i.e. the final adjusted series is adjusted for calendar and seasonal effects but not for the effect of outliers. For the purposes of outlier identification, the ECB corrects for additive outliers (Aos), transitory changes and level shifts prior to seasonal adjustment.

A subset of series is also adjusted for calendar effects arising from the reference periods ending on different specific weekdays. The calendar adjustment covers M1 (and its sub-components), M2-M1 (and its sub-components), M2 and M3.

7.5.3 Second stage: seasonal adjustment

The second stage of the algorithm is the decomposition of the pre-adjusted series into its (i) trend, (ii) seasonal and (iii) irregular components. The first step involves identifying and removing the trend by means of a user-defined filter. The seasonal component is then calculated as a seasonal moving average of the de-trended series with a user-defined filter length.¹⁶² The residual part of the series after identifying the trend and the seasonal components is the irregular component, which is mainly a residual containing non-seasonal and non-calendar short-term variations. The series decomposition can be either additive or multiplicative.

Decomposition of time series X:

Additive decomposition

$$X_t = Trend_t + Seasonal_t + Irregular_t \quad [7.5.3]$$

Multiplicative decomposition

$$X_t = Trend_t \cdot Seasonal_t \cdot Irregular_t \quad [7.5.4]$$

The multiplicative decomposition is used by the ECB for all series in MFI balance sheet statistics apart from net external assets, for which the additive decomposition is used.¹⁶³

¹⁶² In general, the longer the moving average the more stable the seasonal component over time and the smaller the impact of new data on its estimation.

¹⁶³ Multiplicative decomposition is not appropriate for series which can assume negative values, such as net external assets.

The seasonal factors are the output of the seasonal adjustment process. They represent, for any given item, the transformations (additive or multiplicative) to be applied to the non-adjusted series to obtain its adjusted counterpart. In the case of a multiplicative decomposition, the seasonal factors are dimensionless. The ECB obtains multiplicative factors by running the seasonal adjustment on a measure of notional stocks such as the index of notional stocks as in equation [7.3.1]. The same set of factors thereby obtained is then used to obtain seasonally adjusted outstanding amounts and seasonally adjusted transactions as described in equations [7.5.5] and [7.5.6] below. In the case of additive adjustment, the ECB uses the cumulated sum of flows as input for the seasonal adjustment process.

The additive (multiplicative) seasonal factor time series also has the property that its moving sum (product) over any one-year time span is approximately equal to zero (one). This property of seasonal factors implies that the annual flows are approximately equal for adjusted and non-adjusted series.¹⁶⁴

Multiplicative adjustment in MFI balance sheet statistics:

Outstanding amounts

$$L_t^{SA} = \frac{L_t^{NSA}}{\pi_t} \quad [7.5.5]$$

Financial transactions

$$T_t^{SA} = \Delta L_t^{SA} - \frac{\Delta L_t^{NSA} - T_t^{NSA}}{\pi_t} \quad [7.5.6]$$

Additive adjustment in MFI balance sheet statistics:

Outstanding amounts

$$L_t^{SA} = L_t^{NSA} - \sigma_t \quad [7.5.7]$$

Financial transactions

$$T_t^{SA} = \Delta L_t^{SA} - (\Delta L_t^{NSA} - T_t^{NSA}) \quad [7.5.8]$$

LEGEND

L_t^{SA} = Outstanding amounts at the end of period t, seasonally adjusted

L_t^{NSA} = Outstanding amounts at the end of period t, non-seasonally adjusted

T_t^{SA} = Transactions in period t, seasonally adjusted

T_t^{NSA} = Transactions in period t, non-seasonally adjusted

σ_t = Additive seasonal factor

π_t = Multiplicative seasonal factor

¹⁶⁴ Differences between adjusted and non-adjusted annual flows may also be due to calendar adjustments, the impact of which is assumed not to cancel out over one calendar year.

Δ = First difference operator

7.5.4 Derivation of seasonal factors and revision policy

The RegARIMA modelling and the estimation of the seasonal factors are performed by the ECB on an annual basis using information available at the time the models are run. This approach, which preserves the stability of the seasonally adjusted figures, yields time series that include 12 months of projected seasonal adjustment factors, which are then used for the following year. The ECB checks each month that the newly available information does not imply significant revisions to the estimated seasonal patterns. If significant differences are detected (e.g. in the event of major historical revisions), the seasonal factors are updated outside the scheduled yearly review.

7.6 Compilation of balance sheet statistics for MMFs and credit institutions

The MFI sector comprises central banks and other MFIs, which in turn comprise credit institutions, MMFs and a small group of deposit-taking institutions other than credit institutions. To complement balance sheet statistics for the entire MFI sector, NCBs transmit quarterly balance sheet data for MMFs separately. From these, the ECB derives the difference to the aggregated balance sheets of MFIs (excluding the Eurosystem).

The ECB compilation involves:

- MMF balance sheet statistics based on the input received from NCBs, covering outstanding amounts, reclassifications and revaluation adjustments (where available),¹⁶⁵ in line with the requirements of Guideline ECB/2014/15;
- credit institution balance sheet data, currently derived by the ECB for each euro area country as the difference between the aggregated balance sheet of MFIs other than central banks and the quarterly aggregated balance sheet of MMFs.

Data on credit institutions remain particularly relevant for the compilation of macroprudential indicators, for the ECB's annual banking structure report and for the European Commission's need for data on financial services activity. Analysis of the euro area MMF balance sheet also reveals portfolio shifts and changes in the investment policy of MMFs on the assets side, and in conjunction with other investment fund statistics permits analysis of the investment fund industry as a whole.¹⁶⁶

¹⁶⁵ Article 9 of Regulation ECB/2013/33 permits NCBs to grant derogations in respect of the reporting of revaluation adjustments by MMFs, see Section 5.3.3 for further details.

¹⁶⁶ This does not include pension funds, which are instead included under insurance corporations and pension funds (S.128 and S.129 respectively in the ESA 2010).

7.6.1 MMF balance sheet statistics

MMFs can in simple terms be defined as collective investment undertakings (CIUs) which invest in high-quality money market instruments that should provide a return in line with interest rates on money market instruments.¹⁶⁷ As such, MMFs are part of the money-issuing sector. The shares/units issued by MMFs are therefore included in the aggregated and consolidated balance sheet of the MFI sector and contribute to the broad monetary aggregate M3. MMF balance sheet statistics cover the assets and liabilities of MMFs resident in the euro area and are reported by MMFs to NCBs in accordance with Regulation ECB/2013/33 and Article 10 and Tables 1 and 2 of Part 7 of Annex II to Guideline ECB/2014/15. Article 9(2) of Regulation ECB/2013/33 permits NCBs to grant derogations to MMFs, allowing them to report under Regulation ECB/2013/38¹⁶⁸ concerning investment funds, subject to certain conditions including the provision of monthly data in accordance with the timeliness requirements set out in Regulation ECB/2013/33.

The reporting population comprises MMFs resident in the euro area, including those managed from outside the euro area. Conversely, the statistics do not cover MMFs established in offshore locations outside the euro area even if the management companies of these MMFs are resident in the euro area. The list of MMFs forming the reporting population is available on the ECB's website. NCBs send the nationally aggregated statistics on MMFs to the ECB, which derives aggregate results for the euro area.

The issuance of MMF shares/units is reported to the ECB monthly, and the breakdown of MMF assets and liabilities is reported to the ECB quarterly. In addition to amounts outstanding, the data contain transaction adjustments (i.e. price revaluations and reclassifications) during the reference period, based on which transactions are derived at the ECB.¹⁶⁹ In the case of MMF shares/units issued, the transactions provide an approximation of MMFs' net sales of shares/units to investors during the reference period.

7.6.1.1 Publication

The ECB publishes monthly statistical data on the shares/units issued by MMFs as part of the MFI sector balance sheet about four weeks after the reference month. Statistical data for MMF shares/units included in the publication of the monthly MFI balance sheet statistics are consistent with the data presented in the press release on euro area investment fund statistics. For the purposes of the consolidated MFI balance sheet and M3, however, the MMF shares/units issued are presented net of any holdings by the MFI sector (including by MMFs themselves). By contrast, data

¹⁶⁷ See Section 2.1.3 for the complete ECB definition of MMFs.

¹⁶⁸ Regulation (EU) No 1073/2013 of the ECB of 18 October 2013 concerning statistics on the assets and liabilities of investment funds (recast) (ECB/2013/38) (OJ L 297, 7.11.2013, p. 73).

¹⁶⁹ See Sections 5.2 and 5.3 for the transactions derivation.

are presented without consolidation in the statistical press release on investment funds and MMFs.

With the exception of MMF shares/units issued, all MMF statistics are published quarterly around six weeks after the reference date, at the same time as quarterly data on investment funds. The ECB publishes MMF balance sheet statistics for the euro area in aggregate, along with data for individual euro area countries with less detailed information.¹⁷⁰ The data are available as of the first quarter of 2006 onwards (a longer history is available for some individual countries) and refer to outstanding amounts, transactions and annual growth rates.

7.6.1.2 MMF balance sheet asset and liability categories

All balance sheet positions and transactions are shown on an aggregated basis, i.e. positions between MMFs are not netted out. The definitions of asset and liability items are the same as those used in MFI statistics (Chapter 4 defines the instrument categories). An outline of the MMF balance sheet is presented below:

Table 10

Assets:	Liabilities:
Loans	MMF shares/units issued (by far the most important item on the liabilities side of the MMF balance sheet, representing the value of investors' holdings – this is the only item available monthly)
Debt securities held	Deposits
Equity	Capital and reserves
Non-MMF investment fund shares/units	Remaining liabilities
MMF shares/units	
Remaining assets	

A number of additional breakdowns are available for asset and liability items for the euro area aggregates (also summarised in the table below):

- (i) Counterparties are split into euro area residents and non-residents of the euro area. For example, holdings of securities are broken down according to the residency of the issuer. On the liabilities side the breakdown of MMF shares/units issued shows the residency of the holders of the shares/units, i.e. the investors in the MMFs (this information is also available monthly).
- (ii) A sector breakdown of counterparties resident in the euro area, further broken down into MFIs (including MMFs), general government, financial corporations other than MFIs and insurance corporations and pension funds (ICPFs), ICPFs, non-financial corporations, and households (including non-profit institutions serving

¹⁷⁰ Less detailed balance sheet is published for some countries.

households). This complete breakdown is available for the issuers of debt securities held. A split into MFIs, general government and other euro area residents is available for loans and holdings of non-MMF investment funds and equities. On the liabilities side, a limited sector breakdown (identifying holdings of shares/units by the money-holding sector) is available monthly.

- (iii) A breakdown by original maturity of MMFs' holdings of debt securities issued by euro area MFIs into three maturity bands: up to one year, over one year and up to two years, and over two years. MMFs' holdings of debt securities issued by euro area residents other than MFIs are broken down into two maturity bands: up to one year and over one year.
- (iv) A breakdown of the denomination of debt securities held into euro and other currencies (i.e. CHF, GBP, JPY and USD). This breakdown is available for securities issued by non-residents of the euro area, euro area MFIs and other euro area residents, without a further breakdown by sector of issuer.

Table 11
Data availability for euro area MMFs

	Further breakdowns				
	Total	Geographical	Sectoral	Maturity	Currency
Assets					
Loans	Q	Q	Q		
Debt securities held	Q	Q	Q	Q	Q
Non-MMF investment fund shares/units	Q	Q	Q		
Equities	Q	Q	Q		
MMF shares/units	Q	Q			
Remaining assets	Q				
Liabilities					
MMF shares/units issued	Q and M	Q and M			
Deposits	Q	Q			
Capital and reserves	Q				
Remaining liabilities	Q				

7.6.2 Credit institution balance sheet statistics

The aggregated balance sheet of credit institutions is compiled by the ECB as the difference between the MFI aggregated balance sheet excluding the Eurosystem and the MMF aggregated balance sheet. This difference includes a number of MFIs which are deposit-taking corporations other than credit institutions, but these are negligible in terms of total assets (at the end of 2014 they represented 0.4% of the

MFI sector excluding the Eurosystem in terms of total assets).¹⁷¹ A correction will be applied if this residual category reaches a significant size.

Data on the credit institution balance sheet are derived quarterly and published with the regular quarterly MFI balance sheet data, i.e. with a one-month lag compared with the monthly data release. For example, data on the second quarter are released with the July data.

The credit institution aggregated balance sheet published by the ECB has the same asset/liability structure as the MFI balance sheet, with the exception of those breakdowns not directly computable as a difference due to less detailed breakdowns in the quarterly MMF balance sheet. Data on items where MMFs do little or no business, e.g. loans granted to or deposits taken from non-MFI sectors, coincide with the corresponding items of the aggregated MFI balance sheet excluding the Eurosystem. Data are published as amounts outstanding, transactions and growth rates.

All the concepts and definitions described for the compilation of the MFI balance sheet also apply to credit institution balance sheet statistics.

The ECB publishes credit institution data for the euro area in aggregate, as well as data for individual euro area countries.

7.7 MFI balance sheet statistics for non-euro area countries

The ECB's legal framework concerning the consolidated balance sheet of the MFI sector, as defined in Regulation ECB/2013/33, does not impose any obligations on non-euro area EU Member States. However, as indicated in Recital 14 of the Regulation, Article 5 of the Statute of the ESCB, which applies to both participating and non-participating Member States, implies an obligation on non-participating Member States to design and implement at national level all the measures that they consider appropriate to collect the statistical information needed to fulfil the ECB's statistical reporting requirements and to ensure timely statistical preparations for their adoption of the euro.

Accordingly, non-euro area EU Member States compile and report to the ECB MFI balance sheet statistics that closely follow the requirements for euro area countries. The main differences relate to the geographical and currency breakdowns of the various items. The geographical breakdowns include a split between domestic counterparties and counterparties resident in the euro area (with the same level of detail as for domestic positions) and in the rest of the world. The currency breakdowns include positions in the domestic currency as well as in euro and currencies other than euro. These positions are identified separately for all relevant items on the balance sheet.

¹⁷¹ Figures from the "Survey of national practices regarding MFI balance sheet statistics", November 2015.

Data on outstanding amounts, reclassifications and other adjustments, price revaluations and loan write-offs/write-downs are reported to the ECB in the national currency of each individual country and then converted into euro using the exchange rates prevailing on the date to which the data relate (see also Section 2.5.4). As in euro area countries, financial transactions are then calculated by adjusting the difference between end-of-month stocks for the effect of “non-transaction-related” factors, which include reclassification adjustments, exchange rate changes, price revaluations and loan write-offs/write-downs (see Chapter 5 and Section 7.2). The ECB derives financial transactions directly using the series converted into euro. In particular, exchange rate adjustments are derived separately for balances denominated in national currencies and in currencies other than euro using the methodology discussed in Section 7.2.2 above.¹⁷² Growth rates are then computed using the method set out in Section 7.3.

The ECB publishes the monthly aggregated MFI balance sheet of each non-euro area EU Member State on its website with a delay of about 40 calendar days after the reference month. The results are only published in euro.

As soon as the European Council makes a decision on a Member State's entry into the euro area, work begins to ensure timely transmission of high-quality MFI balance sheet data for inclusion in the euro area aggregates. New members of the euro area are also invited to report available historical data as if they had already been part of the euro area. These data are particularly relevant at the time of joining the euro area, as they allow longer enlarged euro area series to be calculated for monetary analysis and forecasting.

As indicated in Section 5.7.3 and Section 7.3.1, some extra information is needed from the new euro area country and from all existing euro area countries at the time of the euro area enlargement in order to derive transactions and growth rates for the euro area for the first month after the enlargement and thereby prevent the step change in balance sheet levels from distorting growth rates.

¹⁷² For positions in national currency, the ECB derives exchange rate adjustments using a simplified version of equation [7.2.2], with $E_{t,FC} = -(e_{t-1,FC} - e_{t,FC}) \cdot L_{t-1,FC} / e_{t-1,FC}$. This is equivalent to ignoring exchange rate revaluations that affect those amounts that are outstanding at t but were not outstanding at $t-1$ (i.e. $L_{t,FC} - L_{t-1,FC}$).

8 Linkages between MFI balance sheet statistics and other domains

8.1 MFI balance sheet statistics for the purposes of minimum reserves

8.1.1 The Eurosystem's minimum reserve requirements

Under Article 19(1) of the Statute of the ESCB, the ECB may require credit institutions established in participating Member States to hold minimum reserves on accounts with the Eurosystem for monetary policy purposes. Union legislation (namely Council Regulation (EC) No 2531/98¹⁷³) further establishes the framework for the Eurosystem's regime of minimum reserves. The details of the scheme are set out in ECB legislation (currently Regulation ECB/2003/9¹⁷⁴).

The main aims of the Eurosystem's minimum reserve system are to stabilise money market interest rates and create (or enlarge) a structural liquidity shortage. Holdings of required reserves are remunerated at the rate of the Eurosystem's main refinancing operations. As explained below, the reserve requirement of each institution is determined in relation to elements of its balance sheet. The system enables institutions to make use of averaging provisions to stabilise interest rates. Compliance with the reserve requirement is therefore determined on the basis of an institution's average daily reserve holdings over the maintenance period of approximately six weeks.¹⁷⁵

The following sections note the relevant provisions of Regulation ECB/2003/9 and explain how Regulation ECB/2013/33¹⁷⁶ concerning the MFI balance sheet relates to them.

8.1.2 The maintenance period

Each maintenance period begins on the settlement day (usually a Wednesday) of the first main refinancing operation following the meeting of the Governing Council at which the assessment of the monetary policy stance is pre-scheduled. The ECB

¹⁷³ Council Regulation (EC) No 2531/98 of 23 November 1998 concerning the application of minimum reserves by the European Central Bank (OJ L 318, 27.11.1998, p. 1).

¹⁷⁴ Regulation (EC) No 1745/2003 of the European Central Bank of 12 September 2003 on the application of minimum reserves (ECB/2003/9) (OJ L 250, 2.10.2003, p. 10).

¹⁷⁵ Reserve maintenance periods were extended from four to six weeks in 2015 following the [Governing Council decision](#) to change its monetary policy meetings from a four-weekly to a six-weekly cycle.

¹⁷⁶ Regulation (EU) No 1071/2013 of the European Central Bank of 24 September 2013 concerning the balance sheet of the monetary financial institutions sector (recast) (ECB/2013/33) (OJ L 297, 7.11.2013, p. 1).

publishes a calendar¹⁷⁷ of reserve maintenance periods at least three months before the start of each year.

8.1.3 Coverage

The obligation to hold minimum reserves applies to credit institutions resident in the euro area, including branches of institutions that have their head office outside the euro area. Non-euro area branches of credit institutions resident in the euro area are not covered by the requirement. The requirement does not apply to institutions whose authorisation has been withdrawn or renounced or which become subject to winding-up procedures, from the start of the relevant maintenance period. The ECB may also exempt institutions subject to reorganisation measures, institutions subject to the freezing of funds or a decision of the ECB's Governing Council suspending or excluding their access to open market operations or the Eurosystem's standing facilities, institutions prohibited from exercising active banking functions in competition with other credit institutions, and institutions authorised to pursue special-purpose functions only or obliged to earmark deposits for regional and/or international development assistance.

8.1.4 The reserve base

An institution's reserve base is defined in relation to elements of its balance sheet, and each credit institution subject to minimum reserve requirements uses the statistical information collected under Regulation ECB/2013/33 to calculate its reserve base and verify the fulfilment of its reserve requirement over the maintenance period (Article 12).

In the Eurosystem's minimum reserve system,¹⁷⁸ the reserve base comprises the liability categories "deposits" and "debt securities issued", denominated in both euro and foreign currency, including such liabilities to a branch or head office abroad. Liabilities owed to the ECB or an NCB in the Eurosystem, or to any institution which is itself obliged to hold minimum reserves under the Eurosystem's regime (including the EIB¹⁷⁹), are excluded from the reserve base.¹⁸⁰ To exclude such liabilities from the reserve base, the issuing credit institution must demonstrate the actual amount of these instruments held by other institutions subject to the Eurosystem's minimum reserve requirements. This may be difficult for debt securities issued (with an original maturity of up to two years), as these instruments can also be traded on the

¹⁷⁷ See the [indicative calendar of reserve maintenance periods](#).

¹⁷⁸ See Section 7 of *The implementation of monetary policy in the euro area: General documentation on Eurosystem monetary policy instruments and procedures*, ECB, February 2011, available on the [ECB's website](#).

¹⁷⁹ Although the EIB is treated for all statistical purposes as resident outside the euro area, it is subject to minimum reserve requirements – see also Section 2.3.3.

¹⁸⁰ This is why liability positions vis-à-vis credit institutions subject to minimum reserves and the Eurosystem are reported separately on the MFI balance sheet.

secondary market. In the absence of firm information, issuers may apply a standardised deduction coefficient to this balance sheet item.

The standardised deduction coefficient was set at 10% in 1999 and increased to 30% one year later. It was subsequently reviewed annually and kept unchanged. In 2010 it was decided to freeze the standardised deduction coefficient at 30%. A review would only be submitted to the Governing Council if new statistical evidence suggested that the macro ratio deviates from the applied standardised deduction.

Following a review of the standardised deduction coefficient in 2016, the Governing Council decided on 21 July 2016 to lower it from 30% to 15% with effect from the maintenance period starting on 14 December 2016.

The ECB calculates the macro ratio as:

Debt securities with an original maturity of up to two years issued by euro area credit institutions and held by euro area credit institutions (including any such paper held by the Eurosystem)

divided by

Total debt securities with an original maturity of up to two years issued by euro area credit institutions.

The components of the reserve base are summarised below:¹⁸¹

¹⁸¹ This information is taken from *The implementation of monetary policy in the euro area: General documentation on Eurosystem monetary policy instruments and procedures*, ECB, February 2011, available on the [ECB's website](#).

Table 12**Reserve base and reserve ratios**

A. Liabilities included in the reserve base and to which a positive reserve ratio is applied
Deposits
• Overnight deposits
• Deposits with agreed maturity up to and including two years
• Deposits redeemable at notice up to and including two years
Debt securities issued
• Debt securities with an original maturity of up to and including two years
B. Liabilities included in the reserve base and to which a zero reserve ratio is applied
Deposits
• Deposits with agreed maturity over two years
• Deposits redeemable at notice over two years
• Repos
Debt securities issued
• Debt securities with an original maturity of over two years
C. Liabilities excluded from the reserve base
• Liabilities vis-à-vis other institutions subject to the Eurosystem's minimum reserve requirements (including the EIB)
• Liabilities vis-à-vis the Eurosystem

The amount of minimum reserves to be held by each institution in respect of a particular maintenance period is calculated by applying the reserve ratios to each relevant item of the reserve base for that period, then deducting €100,000 (the lump-sum allowance) from the calculated reserve requirement. Where institutions report statistical data as a group on a consolidated basis, only one such allowance is granted to the group.

The reserve ratio is specified in Regulation ECB/2003/9 and then determined by the ECB subject to a maximum limit specified in Regulation (EC) No 2531/98. The ECB may change the reserve ratio at any time. Changes are announced in advance of the first maintenance period in which the change is effective.

8.1.5 Calculation and notification of minimum reserves

The reserve base is calculated using the credit institution's end-of-month balance sheet of two months earlier (e.g. the requirement for the maintenance period starting on 19 December 2018 was calculated using the balance sheet for the end of October 2018). The NCB decides whether the credit institution or the NCB itself is to make the calculation. Either way, the other party must be notified of the amount at least three working days before the start of the maintenance period. Any objections must be lodged at the latest on the working day preceding the start of the maintenance period. Once agreed, the amount cannot be subsequently revised. Final figures on the reserve base are then reported to the ECB both for the compilation of the euro area reserve requirement and for statistical purposes.

Aggregated data are published on the ECB website and via Market Information Dissemination (MID).

8.1.6 Further details concerning the administration of the minimum reserve system

Each institution must hold its minimum reserves in a reserve account (or accounts) with the NCB of the Member State in which it is established. An institution with establishments in more than one Member State is required to hold minimum reserves with the NCB of each Member State in which it has an establishment based on its reserve base in that Member State. An institution's daily reserve holding is calculated as the end-of-day balance on its reserve account, and the obligation is to hold at least the required amount on average over the maintenance period. A shortfall in holdings may give rise to sanctions under Regulation ECB/2003/9 (as distinct from sanctions for breaches of Regulation ECB/2013/33, see Chapter 10 below).

Under Regulation ECB/2003/9, an institution may apply to the NCB in the Member State in which it is resident for permission to hold all its minimum reserves indirectly through an intermediary. This option is restricted to institutions which are structured in such a way that part of the administration (e.g. treasury management) is normally carried out by the intermediary. For example, networks of savings banks and cooperative banks may centralise their reserve holdings.

Part 2, Section 1 of Annex III to Regulation ECB/2013/33 contains rules on aggregated statistical reporting as a group by credit institutions subject to minimum reserve requirements. The ECB's Executive Board may allow such credit institutions to carry out reporting as a group within a single national territory in accordance with Article 11 (Reserve holding on a consolidated basis) of Regulation ECB/2003/9:

- Institutions allowed to report statistical data as a group on a consolidated basis (as defined within the ECB's reporting framework for money and banking statistics [...]) must hold minimum reserves through one of the institutions in the group which is acting as intermediary exclusively for these institutions and in accordance with the provisions in Article 10 [on indirect holding of minimum reserves through an intermediary].
- The institution acting as the intermediary for the group may apply to the ECB for exemption from the provisions in Article 10(6). If the ECB accepts its application, only the group as a whole shall be entitled to receive the allowance referred to in Article 5(2).

Where credit institutions have been permitted to hold minimum reserves through an intermediary and do not benefit from group reporting, the relevant NCB may authorise the intermediary to carry out aggregated statistical reporting (other than in respect of the reserve base) on behalf of the credit institutions.

If an institution has no head office in a Member State in which it conducts business as a credit institution, it must designate a principal branch to be responsible for fulfilling the aggregate minimum reserve requirements of all the institution's establishments in that Member State.

Credit institutions benefiting from a derogation from full monthly balance sheet reporting because they are in the tail (see Section 2.7) are nevertheless required to hold minimum reserves. They must provide as a minimum the information necessary to calculate their reserve requirement on a shortened quarterly return as set out in Part 1 of Annex III to Regulation ECB/2013/33. The reserve base calculated from their quarterly return is then used for two consecutive maintenance periods, starting in the third month following the quarter-end to which their data relate (e.g. the requirements for the maintenance periods starting on 19 September 2018 and 31 October 2018 are calculated using the balance sheet for end-June 2018).

Part 2, Section 2 of Annex III to Regulation ECB/2013/33 contains rules for reserve requirements, including the treatment of the lump-sum allowance where credit institutions are involved in mergers. Broadly speaking, merging institutions may each benefit from the lump-sum allowance in the maintenance period in which the merger takes place, but the merged institution is only granted one allowance in subsequent periods. Where there is a division of a credit institution, each of its components benefits from a lump-sum allowance in the maintenance period in which the division takes place.

8.1.7 The minimum reserve requirement and euro area enlargement

When a Member State enters the euro area, its resident credit institutions become subject to the Eurosystem's minimum reserve regime. They may exclude from their reserve base any liabilities which would otherwise contribute to the reserve base that are owed to other institutions subject to the regime, whether domestic or resident elsewhere in the euro area. The reserve base of credit institutions resident elsewhere in the euro area will also be reduced at the time of enlargement to the extent that their liabilities otherwise subject to the requirement are owed to credit institutions resident in the Member State adopting the euro.

For example, the maintenance period coinciding with Lithuania's adoption of the euro ran from 10 December 2014 to 13 January 2015. Credit institutions' reserve bases for that period were calculated from their balance sheets for end-October 2014. Since credit institutions resident in Lithuania were required to hold minimum reserves from the date of enlargement, a reserve base was calculated from their balance sheets for the end of October to determine the amount of minimum reserves to be maintained for the period 1 to 13 January 2015. Credit institutions in other euro area countries were permitted to exclude from their reserve base for the whole of the 10 December to 13 January maintenance period any liabilities to credit institutions resident in Lithuania. Balance sheets for end-November 2014 were then used to calculate the reserve bases for Lithuanian and all other euro area credit institutions

for the first full maintenance period following enlargement, running from 14 January to 10 February 2014.

As noted above, where liabilities are in the form of deposits the holder can be readily identified by the reporting credit institution. If the holder is another credit institution resident in the euro area, the appropriate adjustment can then be made to the reserve base. This may be impossible where the reporting institution has issued negotiable paper, since it may not know who holds it. The standardised coefficient used by the Eurosystem to address this problem (see above) could in principle be revised in the light of how credit institutions in the new euro area country issue and hold marketable instruments, but this has not happened to date.

8.2 MFI balance sheet statistics as an input to financial accounts

The integrated quarterly euro area accounts have been compiled jointly by Eurostat and the ECB since June 2007. The accounts provide an exhaustive record of economic and financial transactions for each main institutional sector in the euro area. The non-financial accounts cover production, the generation, distribution and use of income (for consumption or saving), and the acquisition of non-financial assets (covering capital formation, i.e. the acquisition of produced non-financial assets such as buildings and machinery, and the acquisition of non-produced non-financial assets such as land and mineral reserves). The balancing item or bottom line of the non-financial accounts is net lending or net borrowing. The financial accounts record transactions in financial instruments, representing the decisions of economic agents on how to invest surpluses (net lending) or finance shortfalls (net borrowing) arising from the non-financial accounts. The financial accounts also include balance sheets recording the outstanding amounts of financial assets and liabilities, and accounts reconciling financial transactions in the relevant period with the change in balance sheets between the beginning and end of the period in terms of “other” (i.e. non-transactional) changes arising from price and exchange rate changes, reclassifications and certain other items which are not treated as transactions but do affect balance sheets.

The legal basis for the accounts is a combination of Union and ECB legislation set out in Annex B to Regulation (EU) No 549/2013 on the European system of national and regional accounts, also referred to as the ESA 2010 transmission programme. The transmission programme requires Member States to provide Eurostat with quarterly non-financial accounts and annual financial accounts for resident institutional sectors and for the rest of the world (viewed from the national perspective). An ECB guideline (ECB/2013/24¹⁸²) requires euro area countries to provide the ECB with quarterly national financial accounts and financial balance

¹⁸² Guideline of the ECB of 25 July 2013 on the statistical reporting requirements of the ECB in the field of quarterly financial accounts (recast) (ECB/2013/24) (OJ L 2, 7.1.2014, p.34).

sheets for resident institutional sectors and sub-sectors and for the rest of the world (also viewed from the national perspective).¹⁸³

MFIs are the dominant financial intermediaries in all euro area countries, and the monthly and quarterly returns provide sectoral breakdowns of their counterparties for most instrument categories. MFI balance sheet data provide much of the transaction and balance sheet information which national compilers transmit to the ECB in their financial accounts. In this respect, MFI balance sheet data collected by NCBs and reported to the ECB as described above are directly relevant to the compilation of financial accounts. In addition, at euro area level the “MFI building block” is used directly in the compilation of euro area aggregates to ensure maximum consistency with main indicators such as monetary and credit aggregates. The raw data collected for other areas of euro area statistics also provide sources for the financial accounts, including in particular balance of payments/international investment position statistics, data on investment funds and other (non-monetary) financial intermediaries, notably FVCs, insurance corporations and pension funds, as well as securities issues and securities holdings statistics.

Although timely, frequent, high-quality and designed for the production of euro area aggregates, MFI balance sheet data often cannot be used “as they are” for euro area institutional sector accounts. The main reason is that the data differ in limited but important ways from the ESA 2010 definitions and accounting principles which underlie the institutional sector accounts.

The key departures from ESA 2010 definitions and concepts in MFI balance sheet statistics are the treatment of interest accruing on deposits and loans and the valuation of securities (both of these issues are mentioned in earlier sections of this Manual, see for instance Chapter 4), and the difficulty of linking certain MFI balance sheet statistics with the relevant ESA 2010 financial asset categories. For example, Regulation ECB/2013/33 requires accrued interest to be recorded in “remaining assets” or “remaining liabilities”, in line with the preferred treatment for monetary analysis purposes, and not in the relevant instrument category as preferred in the ESA 2010.¹⁸⁴ MFI balance sheet statistics also allow discretion in the valuation of securities so that accounting information can be used for statistical purposes, whereas the ESA 2010 requires market prices to be used for both transactions and positions.¹⁸⁵ The MFI balance sheet items “remaining assets” and “remaining liabilities” do not coincide with the ESA 2010 instrument category “other accounts receivable/payable” (in addition to accrued interest they also include business in financial derivatives and frequently other items which the ESA 2010 would record elsewhere or not at all).

Bringing together information from different sources may require national and ECB compilers to make certain choices. For example, MFI balance sheets may show amounts for deposits from and loans to other financial sub-sectors that differ from

¹⁸³ All non-participating Member States submit similar information on a voluntary basis.

¹⁸⁴ A similar point relates to the accrual of interest on debt securities, where the regulation on MFI balance sheets gives reporting agents some discretion to follow national accounting principles.

¹⁸⁵ See Chapter 4 for further details.

supposedly mirror data on the assets and liabilities of those sub-sectors. Similarly, the government financial accounts data provided under Union legislation might not be fully consistent with the MFI data on business with government entities. National compilers will choose what they consider to be the more reliable source, making compensatory adjustments to the counterpart data as necessary, although they may be constrained in doing so, for example by a requirement to give priority to the government accounts source.

While much of the financial accounts data prepared by national compilers as described above will be based on MFI balance sheet and other data submitted to the ECB for other statistical purposes, differences may arise for the reasons explained. The ECB is also subject to certain constraints with regard to the euro area financial accounts aggregates, such as the need for the whole non-financial and financial accounts of the financial corporation, general government and rest of the world sectors to be in balance vertically and for the various instrument categories to be in balance horizontally. All these consistency requirements may imply further deviations from the data originally transmitted by the NCBs for the purposes of MFI balance sheet statistics.

The reconciliation process for the euro area accounts is described sequentially for the sake of clarity. In practice, much of it takes place simultaneously in an iterative process.

- Any discrepancy (usually small) between general government non-financial and financial accounts is eliminated (effectively using the general government integrated accounts as published for the euro area).
- Consistency with key monetary statistics is achieved by substituting the latest euro area aggregated MFI deposits and loans data (as published by the ECB) for total MFI deposits and loans submitted by national compilers.¹⁸⁶ An equivalent adjustment is made in deposits and loans of the counterparty sectors. The difference usually evident in the overall MFI balance sheet between reported claims on and liabilities to MFIs in the euro area (“excess of inter-MFI liabilities over inter-MFI assets” in the consolidated MFI balance sheet table published by the ECB) is resolved by taking the assets side (loans) as correct and allocating the discrepancy to the remaining sectors in the horizontal reconciliation of loans and deposits.
- The rest of the world accounts submitted by the national compilers are replaced by euro area balance of payments/international investment position data (the rest of the world column is a requirement of Guideline ECB/2013/24 for the dissemination of national financial accounts. As it contains no split for cross-border transactions between positions within and outside the euro area, it cannot be used directly to compile euro area accounts). In the process,

¹⁸⁶ This requirement for consistency with published monetary statistics implies a degree of departure from the ESA 2010 owing to the treatment of interest accruing on deposits and loans.

acknowledged discrepancies in cross-border transactions and positions within the euro area result in horizontal discrepancies that need to be resolved.¹⁸⁷

- The financial accounts are then balanced horizontally, while the financial corporation and rest of the world sectors are balanced vertically at the same time. This step may require significant changes to the rest of the world account (although much reduced in recent quarters, there are still errors and omissions in the euro area balance of payments that need to be resolved) and to the financial accounts of some resident sectors. When the adjustments are made, due regard is paid to the reliability of the items concerned.

One final point relating to the use of MFI balance sheet data in the financial accounts concerns the balance sheet and transaction methods for reporting transactions. Chapter 5 explains that the two methods have different implications for the analysis of monetary aggregates and their counterparts. They also have different consequences for the financial accounts. In particular, the transaction method is more appropriate for financial accounts purposes, though not necessarily the most helpful for monetary analysis. The example below is based on Example H in Section 5.2.4 above and further illustrates this point.

Example W

Interpreting revaluation adjustments for the financial accounts

Suppose that, within the reference period, MFIs buy corporate bonds from households for 100 and sell them back to households for 105. Under both methods M3 must fall by the net amount of the transactions (5), as households reduce cash or deposits by 5. The two methods produce different results with regard to the counterparts of M3, however. As the bonds do not appear on the end-of-month MFI balance sheet, under the balance sheet method no transactions are recorded and the fall in M3 is matched by an increase in capital and reserves. It follows, therefore, that if unaltered MFI balance sheet data are used as an input for the financial accounts, no transaction is recorded even though M3 has fallen by 5, presumably matched by an entry in “capital and reserves” on the liabilities side of the MFI balance sheet. What should appear as a transaction will probably be recorded in valuation or other changes. The transaction method, meanwhile, records a net sale of 5 of corporate bonds (a withdrawal of domestic credit by the MFI sector), matching the fall of 5 in M3. This is indeed correct, though it should be noted that the corporate sector will have experienced no withdrawal of credit.

¹⁸⁷ Since bilateral data on cross-border transactions within the euro area reveal large discrepancies, the sum of resident sectors' transactions mirroring rest of the world transactions as recorded in national data cannot be correct. Some adjustments to resident sectors' transactions in the balancing process are therefore unavoidable.

8.3 Monetary presentation of the euro area balance of payments

The monetary presentation is a tool for assessing the impact on monetary developments of external transactions involving resident non-MFIs, which are recorded in the current, capital and financial accounts of the balance of payments. It uses the fact that changes in the net external assets of the MFI sector (the external counterpart of M3, see Section 7.1 above) are reflected in the balance of payments, with some qualification, as the mirror image of external transactions by non-MFIs in the euro area.¹⁸⁸ Such external financial transactions have had an important impact on euro area monetary dynamics since the launch of the euro.

If we leave out certain details which matter in practice but obscure the main picture, the monetary presentation relies on two identities. The first identity is derived directly from the structure of the consolidated MFI balance sheet as described in Section 7.1.2 above. In particular, equation [7.1.1] can be rewritten as follows:

Table 13

Net external assets (of MFIs) = M3 – credit to euro area residents + longer-term financial liabilities – other counterparts (net)	[8.3.1]
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The second identity is derived from the fact that the balance of payments is based on a double-entry principle, meaning that the sum of all reported transactions is by definition zero. In other words, breaking down the balance of payments into its main components yields the following:

Table 14

Current and capital account balance = External financial transactions of residents	[8.3.2]
where	
External financial transactions of residents = External financial transactions of resident MFIs + external financial transactions of resident non-MFIs	[8.3.3]

In particular, the external financial transactions of resident units can be broken down by type of investment (direct, portfolio and “other” investment, as well as transactions in official reserve assets by the central bank) and, to some extent, by underlying financial instrument. Since changes in MFI net external assets in monetary statistics should in principle match the external financial transactions of MFIs as recorded in the balance of payments, substituting [8.3.3] and [8.3.2] into [8.3.1] yields the monetary presentation of the balance of payments.

¹⁸⁸ See “The monetary presentation of the euro area balance of payments”, *Occasional Paper Series*, No 96, ECB, September 2008, available on the [ECB's website](#).

Table 15

Monetary presentation of the balance of payments	
<p>Current and capital account balance – external financial transactions of resident non-MFIs = Δ M3 – Δ credit to euro area residents</p> <p>+ Δ longer-term financial liabilities – Δ other counterparts (net) (= Δ net external assets (of MFIs))</p> <p>where Δ is used in this context to denote flows in the corresponding aggregate</p> <p>This identity can also be expressed as: Δ M3 = Current and capital account balance – external financial transactions of resident non-MFIs + Δ credit to euro area residents – Δ longer-term financial liabilities + Δ other counterparts (net)</p>	[8.3.4]

As shown in the equation above, the change in the net external assets of the MFI sector is the mirror image of the financial transactions of non-MFIs with non-residents of the euro area (on a net basis) and the current and capital account balance. The foreign transactions of MFIs and the resulting change in their net external asset position can therefore be linked to the external transactions of the non-MFI sector. Accordingly, it can be said, for example, that a rise of €X billion in M3 was associated with a rise of €Y billion in domestic credit and a positive contribution of €Z billion from external transactions (i.e. an increase of €Z billion in MFI net external assets). This increase in MFI net external assets is also recorded in the balance of payments and the counterpart transactions of this €Z billion may be in a current account surplus and/or in transactions in direct/portfolio/other investment by non-MFI sectors, and so on. See the ECB Occasional Paper mentioned in the previous footnote for detailed examples showing how the linkage between monetary aggregates and the balance of payments may arise.

In practice, neither the change in MFI net external assets in the monetary statistics nor their external financial transactions as recorded in the balance of payments provide a comprehensive statement of the change in MFIs' external assets and liabilities. Some external assets and liabilities of MFIs cannot be distinguished from other MFI balance sheet categories, and not all balance of payments categories distinguish between transactions of MFIs and those of other resident sectors. While the heading in the monetary presentation (Table 7.4 of the ECB Statistical Bulletin)¹⁸⁹ is "B.o.p. items mirroring net transactions by MFIs", the table does not pretend that either the external counterpart of M3 or external transactions of MFIs as identified in the balance of payments are a complete representation of transactions in the assets and liabilities of MFIs with non-residents. The figures are approximate and some qualifications should therefore be made.

Foreign holdings of long-term bonds (i.e. with an original maturity of over two years) and equity issued by euro area MFIs are not recorded as external liabilities in MFI balance sheet statistics. This is because financial intermediation chains often do not allow the MFIs issuing securities to identify who their final holders are. By contrast, estimates of foreign holdings of long-term bonds and equity issued by euro area

¹⁸⁹ See the [SDW website](#).

MFIs are available in the balance of payments (those for portfolio investment are based on the information on holdings of securities reported by other resident sectors); B.o.p. compilers collect information for all euro area resident sectors and are therefore able to deduct the total holdings of euro area residents from the total securities issued by euro area MFIs.

1. Foreign holdings of money market fund shares and debt securities with an original maturity of less than two years are collected on the basis of information provided by MFIs, in most cases relating to the first known purchaser. By contrast, the balance of payments identifies the securities held by non-residents following the above-mentioned residual approach. These two approaches may arrive at different results.
2. Another point applies to MFIs' assets and liabilities arising from financial derivatives contracts with non-residents, which are recorded in remaining assets/liabilities in MFI balance sheet statistics. These transactions are currently derived from stocks without accurate information of revaluation flows and have therefore not been included under net external assets. The balance of payments, meanwhile, shows the net figure for MFIs and all other resident sectors.
3. Valuation and other accounting practices give rise to discrepancies between transactions in the external counterpart of M3 and transactions in MFIs' external assets and liabilities as recorded in the euro area balance of payments. In certain cases the balance of payments financial account is based on direct recording of transactions, while for MFI balance sheet purposes the recording practices vary between countries, as discussed in detail in Chapter 6. The discrepancy between the external counterpart of M3 and the related entries in the balance of payments arising from differences in valuation is likely to have diminished with the growing use of security-by-security reporting supported by a single comprehensive securities database, but it is unlikely to ever be eliminated completely.
4. Although a somewhat different point, the treatment of errors and omissions in the balance of payments should also be mentioned. The monetary presentation attributes errors and omissions to the external transactions of non-MFIs. This is not because the recorded external transactions of MFIs are deemed to be correct, meaning that all blame for errors and omissions in the balance of payments is attributed to non-MFI transactions, but rather because the monetary presentation seeks to identify balance of payments items corresponding to the external counterpart of M3 and therefore allocates errors and omissions to the other sectors.

These qualifications are explained in more detail in the ECB Occasional Paper referred to above. However, they do not seriously diminish the value of linking monetary and balance of payments developments in this way.

8.4 MFI balance sheet statistics and security-by-security reporting

Security-by-security reporting is referred to in several ECB regulations aimed at reporting agents, including Regulation ECB/2012/24¹⁹⁰, Regulation ECB/2013/38¹⁹¹ and Regulation ECB/2013/40¹⁹². It is also referred to in ECB guidelines aimed at NCBs, for example Guideline ECB/2011/23 on the statistical reporting requirements of the ECB in the field of external statistics for balance of payments and international investment position statistics. For the purposes of MFI balance sheet statistics, Article 5(2) of Regulation ECB/2013/33 allows for reporting on a security-by-security basis provided that the minimum statistical standards as outlined in Section 5.3.3 are met.

In line with the requirements of both Regulation ECB/2013/33 and Regulation ECB/2012/24, NCBs may combine the reporting requirements to reduce the reporting burden on credit institutions. Similarly, Article 9(3)(c) further provides that derogations may be granted in respect of the reporting of price revaluations of securities, including the granting of complete exemption from any such reporting, to credit institutions which report monthly stocks of securities on a security-by-security basis. MMFs may also be allowed to report in line with Regulation ECB/2013/38 as a means of reducing their reporting burden.

On the liabilities side, MFIs may report the unique security identifier (usually the ISIN code) under security-by-security reporting together with some additional reference data such as amount outstanding, type of instrument or coupon-related information. On the assets side, the sole information required under security-by-security reporting is the unique security identifier and the amount held. The NCB typically runs this information against a detailed and comprehensive securities database containing reference information on the features of the security relevant to MFI balance sheet (and all other) reporting requirements. With security-by-security reporting and this process, NCB compilers are able to ensure that instrument, residence and sector classifications on the issuance side are available. To ensure harmonisation of the reference information, the securities database used for this purpose (possibly in conjunction with national systems) is the Centralised Securities Database (CSDB) developed by the ESCB and managed and maintained by the ECB. The CSDB is a multi-source system that contains security-by-security reference information and prices on debt securities, equity securities and investment fund shares/units as well as all ratings provided by the ECB-recognised rating agencies. It covers all securities relevant for ESCB statistics, including securities issued by EU residents, securities that may be held by EU residents and securities denominated in euro (worldwide). Although the CSDB is updated continuously, the need to check and validate the

¹⁹⁰ Regulation (EU) No 1011/2012 of the European Central Bank of 17 October 2012 concerning statistics on holdings of securities (ECB/2012/24) (OJ L 305, 1.11.2012, p.6).

¹⁹¹ Regulation (EU) No 1073/2013 of the ECB of 18 October 2013 concerning statistics on the assets and liabilities of investment funds (recast) (ECB/2013/38) (OJ L 297, 7.11.2013, p. 73).

¹⁹² Regulation (EU) No 1075/2013 of the ECB of 18 October 2013 concerning statistics on the assets and liabilities of financial vehicle corporations engaged in securitisation transactions (recast) (ECB/2013/40) (OJ L 297, 7.11.2013, p. 107).

information means that the version accessible to statistical compilers is updated on a monthly basis.

Securities holdings statistics (SHS)¹⁹³ are collected on the basis of Regulation ECB/2012/24 and Guideline ECB/2013/7¹⁹⁴. The data collection comprises quarterly security-by-security data on holdings of debt securities, equity securities and investment fund shares/units, broken down by residency and ESA 2010 sector of the holder, and (where applicable) the holdings of banking groups. The security-by-security data are then combined with CSDB data on the security issuers (e.g. residency and ESA 2010 sector) and reference information on the security (e.g. type of instrument and quantitative information such as total outstanding amounts, coupons or dividends). Data are stored in the Securities Holdings Statistics Database (SHSDB), which comprises the two modules SHS by Sector (SHSS) and SHS by Group (SHSG).

- SHSS data, collected since the fourth quarter of 2013, covers information on holdings of securities by euro area investors and holdings of euro area securities by non-euro area investors. Data are collected directly from MFIs, investment funds, FVCs and insurance corporations in accordance with the statistical host approach, while holdings by other investors are reported by custodians.
- SHSG data, collected since the fourth quarter of 2013, initially covered information on holdings of securities by the 26 largest banking groups in the euro area. As of the third quarter of 2018 the coverage was extended to cover information on holdings of securities by banking groups in the euro area that are relevant to the stability and functioning of the financial system, in particular those under the direct supervision of the ECB. Data are collected in accordance with the home approach and reported by the group head individually identifying all its entities (holder-by-holder information).

A summary of the main differences between SHS in their current form and MFI balance sheet statistics can be found below:

- *Valuation:* For SHS purposes, nominal and/or market values are collected and the CSDB information on prices is used to calculate the respective valuations that are not reported directly. For SHSG only, the accounting values are collected together with the accounting standard of the reporting entity. The preference for MFI balance sheet statistics is to use current market values or a close equivalent. It is possible, however, for MFIs to report using accounting values, and these can differ from market values.
- *Reporting population:* SHSS reporting data are collected from MFIs, investment funds, FVCs, insurance corporations and custodians. For SHSG reporting, only

¹⁹³ For a more detailed description of SHS, see the article "[Who holds what? New information on securities holdings](#)", Economic Bulletin 2015/2, ECB.

¹⁹⁴ Guideline of the European Central Bank of 22 March 2013 concerning statistics on holdings of securities (ECB/2013/7) (OJ L 125, 7.5.2013, p. 17).

the head offices of banking groups are obliged to report. By contrast, the reporting population for MFI balance sheet statistics consists of all MFIs, as outlined in Section 2.1.

- *Scope:* SHS data cover holdings of debt securities, listed shares and investment fund shares/units, with and without ISIN codes. Reporting of holdings of securities without ISIN codes is mandatory for SHSG, while for SHSS they are only collected by certain NCBs on a voluntary basis. A number of accounting and risk-related attributes are reported for SHSG. MFI balance sheet statistics cover all holdings of securities, with and without ISIN codes, and also include unlisted and other equity which are outside the scope of SHS.
- *Own holdings of securities:* Securities which are held by the issuer itself are reported on a gross basis in SHS. This is contrary to the practice for MFI balance sheet statistics, which instead requires issuers' holdings of their own securities to be reported on a net basis (see Section 4.5.1.7).
- *Timeliness:* Although SHS are compiled quarterly, some NCBs collect monthly SHSS data in order to derive flows on the basis of monthly positions. NCBs report quarterly MFI balance sheet statistics to the ECB 28 working days after the end of the reference period, while SHSS data are submitted to the ECB 70 days after the end of the reference period and SHSG data 55 days after the end of the reference period. If NCBs do not collect MFI balance sheet data from reporting agents on a security-by-security basis, the separate SHS data collection can be used for cross-checking with aggregates.
- *Home/host approach to reporting:* MFI balance sheet statistics are collected on a solo reporting basis at MFI level. The residency of each MFI (as opposed to the residency of the group lead) is the criterion for determining the NCB to which data will be reported (host approach). The same approach is followed for SHSS reporting by MFIs, IFs, FVCs, insurance corporations and custodians of their holdings, and in custodians' reporting of their clients' holdings. Conversely, SHSG follows the home approach, with all data reported by the head office to the relevant NCB at legal entity level for each of the subsidiaries and branches worldwide.
- *Reporting:* For both SHSS reporting and MFI balance sheet statistics, data are reported to the relevant NCB. For SHSG reporting, certain banking groups report data directly to the ECB rather than to the relevant NCB.

8.5 Other projects relating to the reporting of MFIs

The ESCB's long-term approach to collecting data from banks aims to standardise and integrate existing ESCB statistical frameworks as far as possible across domains and countries. The main objective of this approach is to increase the efficiency of reporting and reduce the burden for banks, while continuing to provide users with high-quality data.

One element of this strategic approach is the ESCB's **Integrated Reporting Framework** (IReF), which aims to integrate banks' statistical reporting requirements. In particular, the IReF would consist of (i) an integrated set of reports for banks, aimed in the long run at replacing national reporting templates as far as possible; and (ii) a unique set of transformation rules for compiling the derived statistics required by authorities, possibly to be shared with the stakeholders involved. The main focus of the project is on the requirements of the ECB's regulations on MFI balance sheet statistics, MFI interest rate statistics, securities holdings statistics and AnaCredit. The ESCB aims to implement the IReF in 2024-27, subject to a review.¹⁹⁵

Another element of the ESCB's strategic approach to collecting data from banks is the **Banks' Integrated Reporting Dictionary** (BIRD). The ESCB and the banking industry have worked together to produce the BIRD, which provides banks with up-to-date reference material to help them produce statistical and supervisory reports. The BIRD provides banks with a precise description of the data that should be extracted from their internal systems to generate reports and clearly defined rules for transforming these data to ensure compliance with reporting requirements (supervisory and statistical). Adoption of the initiative, which was launched in 2015, by banks is voluntary, with documentation freely available to interested parties. In the longer term, if the IReF is implemented then the BIRD would be associated with integrated data collection rather than with several distinct sets of reporting requirements. BIRD is closely linked to the Single Data Dictionary (SDD), an ECB internal data dictionary which describes the different datasets used at the ECB.

A further significant initiative in terms of ESCB data reported by banks is the **AnaCredit** project. AnaCredit comprises loan-by-loan data on credit granted by financial institutions in all Member States whose currency is the euro. Specifically, Regulation ECB/2016/13¹⁹⁶ focuses on the collection of granular credit data on credits granted by credit institutions to legal entities on a solo basis. AnaCredit is to be implemented in several stages, with initial data reporting for reference period September 2018. As a summary of some of the differences between AnaCredit in its first stage and MFI balance sheet statistics, the following elements are relevant:

- **Reporting population:** The MFI balance sheet statistics reporting population consists of all MFIs (central banks, credit institutions, deposit-taking corporations other than credit institutions, MMFs and ELMIs) resident in the euro area, whereas the AnaCredit reporting population only includes credit institutions.
- **Scope:** AnaCredit focuses on credit granted to legal entities. As a result, it includes no data on the household sector.
- **Threshold:** Instruments are reported to AnaCredit if the debtor's commitment amount is equal to or exceeds a threshold of €25,000.

¹⁹⁵ For further information on the IReF, see the relevant section on the [ECB's website](#).

¹⁹⁶ Regulation (EU) 2016/867 of the European Central Bank of 18 May 2016 on the collection of granular credit and credit risk data (ECB/2016/13) (OJ L 144, 1.6.2016, p.44).

- **Timeliness:** Monthly MFI balance sheet data are available 15 working days after the end of the reference period, whereas monthly AnaCredit data are available 30 working days after the end of the reference period. With regard to quarterly data, MFI balance sheet statistics are reported 28 working days after the end of the reference period, while quarterly AnaCredit data (the accounting dataset) are submitted 15 days after the submission of Implementing Technical Standards (12 May, 11 August, 11 November and 11 February).
- **Home/host approach to reporting:** MFI balance sheet statistics typically involve solo reporting at MFI level. The residency of each MFI (as opposed to the residency of the group lead) is the criterion for determining the NCB to which data will be reported. This is known as the host approach. AnaCredit follows both a home and host approach whereby credit institutions (head office) in reporting Member States report to their home NCB their own exposures and the exposures of observed agents, i.e. any foreign branches whether or not they are resident in reporting Member States.¹⁹⁷ This is known as the home approach. AnaCredit also requires data relating to foreign branches which are resident in reporting Member States to be reported by the foreign branch to its NCB, although NCBs may bilaterally agree how data are to be received.¹⁹⁸ This is the host approach. Even though AnaCredit follows a mixed home/host approach, reconciliation between AnaCredit and MFI balance sheet statistics, which follow the host approach, in terms of coverage of resident credit institutions is still possible provided the NCB opts to collect the required data.

8.6 Main differences between MFI balance sheet statistics and other frameworks

8.6.1 Supervisory data

The ECB and the EBA have jointly published an in-depth methodological manual which provides a bridge between the statistical and supervisory reporting frameworks, with the ultimate aim of reducing the reporting burden.¹⁹⁹ The manual, authored by the Joint Expert Group on Reconciliation of credit institutions' statistical and supervisory reporting requirements (JEGR), identifies linkages and differences between supervisory reporting (mainly the FINREP supervisory framework) and the ECB statistical requirements applicable to MFIs, namely MFI balance sheet statistics (BSI), MFI interest rate statistics (MIR) and securities holdings statistics (SHS).

¹⁹⁷ Under Article 6(4) of Regulation ECB/2016/13, this requirement is left to the discretion of the home NCB.

¹⁹⁸ Under Article 6(3) of Regulation ECB/2016/13, this requirement is left to the discretion of the host NCB. In addition, all data reported must follow the accounting principles of the legal entity that the foreign branch is part of.

¹⁹⁹ The third version of *Bridging the reporting requirements – methodological manual* was published in May 2014. See the website of the [ECB](#) or [EBA](#).

The key differences between MFI balance sheet data and supervisory data relate to the reporting population, geographical coverage and degree of consolidation of the reported data, categorisation of counterparties, valuation methods and treatment of certain financial instruments. It should also be noted that the different objectives of the respective frameworks give rise to differences in some of the definitions underpinning reporting requirements. Supervisory data aim to provide a comprehensive view of the risk profile of institutions' activities, while the focus of MFI balance sheet statistics is to support monetary policy decision-making. MFI balance sheet statistics therefore place greater emphasis on the availability of time series and the ability to derive transactions which are important for economic analysis.

The **reporting population** in MFI balance sheet statistics consists of those institutions that meet the MFI definition, as presented in Chapter 3 above. The MFI sector includes the ECB, NCBs, deposit-taking corporations (i.e. credit institutions and other deposit-taking institutions) and MMFs. Of these, only credit institutions are covered by supervisory data, unless they are excluded from the scope of supervision pursuant to Article 2(5) of the Capital Requirements Directive (CRD)²⁰⁰.

A second important difference is the **degree of consolidation**. Supervisory reporting requirements are applied on a cross-sector and cross-border consolidated basis, using the prudential consolidation approach prescribed in the Capital Requirements Regulation (CRR)²⁰¹. Supervisory reporting is also required at solo level unless the competent authorities waive the application of CRR requirements at solo level.

Individual MFI balance sheet data of credit institutions are most comparable to supervisory data based on solo accounts of resident institutions, although foreign branches are excluded from the parent institution's reporting requirements for statistical purposes. In other words, MFI balance sheet statistics are defined on the basis of the "host" **residency principle** for each individual institution, whereas supervisory reporting under Regulation (EU) No 680/2014 (which includes COREP and FINREP) follows the "home" residency approach (branches of a supervised entity established in a different country will be part of the solo supervisory reporting). These branches, if reported, would be part of their host country's reporting population for MFI balance sheet statistics, however.

These different approaches mean there is little comparability between the two reporting frameworks for credit institutions which have complex domestic structures and many foreign subsidiaries or branches. In certain countries, supervisory reporting requirements are met through the use of an integrated framework that also incorporates statistical data. For solo accounts, the statistical and supervisory reporting frameworks broadly relate to the same reporting population and

²⁰⁰ Directive 2013/36/EU of the European Parliament and of the Council of 26 June 2013 on access to the activity of credit institutions and the prudential supervision of credit institutions and investment firms, amending Directive 2002/87/EC and repealing Directives 2006/48/EC and 2006/49/EC (OJ L 176, 27.6.2013, p. 338).

²⁰¹ Regulation (EU) No 575/2013 of the European Parliament and of the Council of 26 June 2013 on prudential requirements for credit institutions and investment firms and amending Regulation (EU) No 648/2012 (OJ L 176, 27.6.2013, p. 1).

geographical coverage, with the only difference being the treatment of foreign branches as explained above.

With regard to the **categorisation of counterparties** in MFI balance sheet statistics, these are broken down by standard sectors which represent groups of entities with similar economic behaviours, in line with European statistical standards. The rationale lies in the requirements of monetary analysis, which requires sector classifications to match those used in other economic and financial statistics. The FINREP framework also provides a harmonised counterparty breakdown to map economic sector allocations in FINREP to exposures classes in the COREP framework. The sectors are central banks, general governments, credit institutions, other financial corporations, non-financial corporations and households. The two categorisations can be reconciled for the euro area, however (see Table 5 of the above-mentioned bridging manual).

The following table illustrates a number of additional differences concerning valuation methods, classification of financial institutions and the treatment of specific instruments.

Table 16
Differences between statistical and supervisory statistics

Object	Statistical treatment	Supervisory treatment
Valuation of loans	Valued at nominal amount (the amount which the debtor is obliged to repay to the creditor)	Valued mostly at amortised cost (net of valuation adjustments/provisions)
	Valuation adjustments recorded in "capital and reserves", independently of the underlying instrument	Valuation adjustments recorded within the underlying instrument (although separately available)
Valuation of securities	Recorded at market value (where possible) and at the original maturity	Recorded at book value (depending on the portfolio in which the security is held, it can be at amortised cost, market or fair value), and at residual maturity
Financial vehicle corporations	FVCs in BSI terms are resident in an EU country. They do not need to engage exclusively in securitisation transactions to meet the definition	SSPEs in FINREP can be resident in any country. Their activities are limited to the accomplishment of securitisation objectives
Suspense and transit items	Gross amounts receivable in terms of suspense and transit items recorded as a separate item (sub-item of remaining assets/liabilities)	Gross amounts receivable and transit and suspense items recorded with the underlying instrument
Interest accrued but not yet paid on deposits, loans and securities	Recorded separately from the instrument it refers to (sub-item of remaining assets/liabilities)	Recorded with the underlying instrument
Bad loans	Not recorded separately from loans. Based on definition of default in the CRD IV.	Recorded separately from loans. Based on definition of default in IAS 39/IFRS 9

8.6.2 Consolidated banking data

Consolidated Banking Data (CBD) statistics contain information on the aggregate consolidated position of EU banks and refer to all EU Member States. The dataset is disseminated by the ECB and published alongside its other supervisory and prudential statistics. While some concepts are aligned with the MFI BSI statistics,

there are substantial differences in areas such as the objectives, reporting population, consolidation, accounting and valuation principles, and scope of the data collections.

In terms of **objectives**, as noted in Section 8.6.1 MFI BSI statistics are macroeconomic and financial data which focus on monetary transactions and support monetary policy decision-making. The increasingly granular availability of institution-level and instrument-level BSI data also supports a wide range of analyses such as financial stability analysis and prudential supervision. By contrast, CBD statistics support financial stability analysis, macroprudential policy and structural analysis.

The **scope** of MFI balance sheet statistics is to provide a detailed picture of an MFI's balance sheet, broken down by instrument. CBD statistics require detailed reporting in a number of other areas, with the result that CBD data also describe the profitability, efficiency, asset quality, concentration, liquidity, funding structure and solvency of EU banks.

For MFI balance sheet statistics, the **reporting population** is as described in Section 8.6.1 and covers all entities that are classified as MFIs. MFIs include credit institutions, which are the only entity covered by the CBD framework. In addition, CBD statistics are broken down into three size groups of domestic reporting banks, namely small, medium-sized and large, and also include foreign-controlled institutions active in EU countries. This is not a feature of MFI balance sheet statistics. Finally, in terms of coverage of the reporting population MFI balance sheet statistics collect data from euro area MFIs, while CBD statistics collect data from all EU banks.

The principles with regard to **residency** are similar to those outlined in Section 8.6.1. For MFI balance sheet statistics, data refer to an MFI's country of activity (host approach). Under the CBD framework, data are reported on domestically controlled banks which have been consolidated across borders and sectors, and on foreign banks which are defined as subsidiaries and branches that are controlled by either an EU or non-EU parent that is "foreign" from the reporting country's perspective. This approach provides a comprehensive view of risk. In cross-border consolidation, information on branches and subsidiaries located (from the reporting country's perspective) outside the domestic market is included in the data reported by the parent institution, while cross-sector consolidation involves the inclusion of data on branches and subsidiaries of banks that can be classified as other financial institutions (apart from insurance companies).

CBD statistics are based on the aggregation of micro-supervisory FINREP and COREP templates, with **valuation** based on IFRS or national GAAP. A subset of data is reported quarterly, while a comprehensive set of year-end data is collected annually. MFI balance sheet statistics are underpinned by an ECB Regulation which follows the classification principles and definitions set out in the ESA 2010. The preferred valuation approach is market and nominal values, although prudential practices are allowed in certain cases. Detailed data are reported monthly for MFI balance sheet statistics, with further breakdowns requested on a quarterly and

annual basis. One final difference to note is the long time series available for MFI balance sheet statistics, which are available quarterly from 1999 for many countries. Annual data exists for CBD statistics from 2007, with semi-annual data available from 2010 and quarterly data from 2015.

9 Confidentiality of statistical information and arrangements for exchanging data

The general basis for the collection of statistical information by the ESCB is outlined in the Statute of the ESCB. In particular, Article 5.1 requires the ECB, assisted by the NCBs, to collect any statistical information necessary for the tasks of the ESCB, either from the competent national authorities or directly from economic agents. In addition, Regulation (EC) No 2533/98²⁰² as amended by Regulation (EC) No 951/2009²⁰³ defines the general framework for the collection of statistical information by the ECB, which has the right to collect statistical information “within the limits of the reference reporting population and of what is necessary to carry out the tasks of the ESCB”.

9.1 Confidentiality regime

The Council Regulation lays down the confidentiality regime applicable to confidential statistical information transmitted to the ECB for the performance of the tasks of the ESCB.²⁰⁴ Specifically, Article 1(12) states that: “‘confidential statistical information’ shall mean statistical information which allows reporting agents or any other legal or natural person, entity or branch to be identified, either directly from their name or address or from an officially allocated identification code, or indirectly through deduction, thereby disclosing individual information. To determine whether a reporting agent or any other legal or natural person, entity or branch is identifiable, account shall be taken of all the means that might reasonably be used by a third party to identify the said reporting agent or the other legal or natural person, entity or branch.”

In turn, Article 8 of Regulation (EC) No 2533/98 determines the protection and use of confidential statistical information collected by the ESCB. In particular, confidential information must be used exclusively for the exercise of the tasks of the ESCB, except in the five specific circumstances mentioned in Article 8(1), including if the reporting agent has explicitly given its consent to the use of the information for other purposes.

²⁰² Council Regulation (EC) No 2533/98 of 23 November 1998 concerning the collection of statistical information by the European Central Bank (OJ L 318, 27.11.1998, p 8).

²⁰³ Council Regulation (EC) No 951/2009 of 9 October 2009 amending Regulation (EC) No 2533/98 concerning the collection of statistical information by the European Central Bank (OJ L 269, 14.10.2009, p. 1).

²⁰⁴ This confidentiality regime does not affect special national or Union provisions relating to the transmission of other types of information to the ECB. For these other types of information, the rules on statistical confidentiality applied by the national statistical institutes and the Commission on the statistical information they collect on their behalf must be respected (see recital 22 of Council Regulation (EC) No 2533/98).

Article 8 also provides that the reporting agent must be informed of the statistical and other administrative uses to which the data may be put (Article 8(2)), and that measures must be taken to ensure the physical and logical protection of confidential statistical information (Article 8(3)). However, Article 8(7) states that “Statistical information taken from sources which are available to the public in accordance with national legislation shall not be considered confidential.”

In line with Article 8b of Regulation (EC) No 2533/98, the ECB must also publish an annual confidentiality report on the measures adopted to safeguard the confidentiality of the statistical information referred to above.²⁰⁵

Further standards and measures on protection and access are laid down in Guideline ECB/1998/NP28²⁰⁶ and in Guideline ECB/2016/1²⁰⁷.

The application of the confidentiality framework to MFI balance sheet statistics therefore rests on the concurrence of three distinct elements, namely the existence of individual statistical information which if disclosed to a third party (outside the ESCB) would expose the reporting agent or individual customers of banks to a risk of identification (direct or indirect) through means which third parties may reasonably be expected to use and which is not already in the public domain.

Several points are worth considering on the basis of these elements. First, data are treated as confidential statistical information where a third party (outside the ESCB) could identify the relevant reporting agents. Cases where identification can only be made by the relevant NCB on the basis of specific information not available to third parties are not covered here. Second, as MFI balance sheet statistics are highly aggregated in terms of counterparties and types of instrument, they typically do not reveal information on transactions with individual customers. In addition, MFI balance sheet positions are not always confidential, as they may already be reflected in the public statements that MFIs are required to produce. As such, figures are only treated as confidential statistical information if they are not already available to the public through other sources such as national statistics or the financial reporting of the reporting agent in accordance with public disclosure requirements.

Article 2(3) of Guideline ECB/1998/NP28 also provides that “All appropriate measures shall be taken to ensure that confidential statistical information is arranged in such a way that any published data covers at least three economic agents. Where one or two economic agents make up a sufficiently large proportion of any

²⁰⁵ Such confidentiality reports are published yearly on the statistics section of the [ECB's website](#).

²⁰⁶ Guideline of the ECB of 22 December 1998 concerning the common rules and minimum standards to protect the confidentiality of the individual statistical information collected by the ECB assisted by the national central banks (ECB/1998/NP28) (OJ L 55, 24.02.2001, p. 72).

²⁰⁷ Guideline (EU) 2016/256 of the European Central Bank of 5 February 2016 concerning the extension of common rules and minimum standards to protect the confidentiality of the statistical information collected by the European Central Bank assisted by the national central banks to national competent authorities of participating Member States and to the European Central Bank in its supervisory functions (ECB/2016/1) (OJ L 47, 24.2.2016, p. 16).

observation to make them indirectly identifiable, published data shall be arranged in such a way as to prevent their indirect identification”.²⁰⁸

Since MFI balance sheet statistics relate to the whole MFI population, euro area and national statistics typically entail such a high level of aggregation that this provision does not affect them. Where a specific financial instrument is issued by only one or two MFIs resident in a specific country, this does not constitute confidential statistical information unless a third party would be able to identify the reporting agent(s) using the reported information, notwithstanding the provisions discussed in the previous paragraph. The same treatment should also be applied in cases where the specific data are such that one or two entities are predominant in the reported total.

In addition, Article 8(1) of Regulation (EC) No 2533/98 states that the ESCB can use confidential statistical information transmitted to it for purposes other than the exercise of the tasks of the ESCB if “the reporting agent or the other legal or natural person, entity or branch which can be identified, has explicitly given its consent to the use of the said statistical information for other purposes.” Following the same reasoning, Article 2(3) of Guideline ECB/1998/NP28 provides that the rules stated in the article “shall not apply if the reporting agents or the other legal persons, natural persons, entities or branches that can be identified have explicitly given their consent to the disclosure.” Even identifiable figures can therefore be disseminated or published if the agent has explicitly consented to such dissemination and/or publication.

9.2 Exchange of data

Article 8(4) of Regulation (EC) No 2533/98 addresses the exchange of confidential statistical information within the ESCB. It states that data may be transmitted “to the extent and at the level of detail necessary for the performance of the tasks of the ESCB referred to in the Treaty or tasks in the field of prudential supervision given to the members of the ESCB”. Any transmission must also be “necessary for the efficient development, production or dissemination of statistics under Article 5 of the Statute or for increasing their quality”.

Article 8(4a) relates to the exchange of data between authorities and bodies of the Member States and the Union responsible for the supervision of financial institutions, markets and infrastructures or for the stability of the financial system. As above, data may be transmitted “only to the extent and at the level of detail necessary for the performance of their respective tasks”. It also states that such authorities or bodies receiving confidential data must “take all necessary regulatory, administrative, technical and organisational measures to ensure the physical and logical protection

²⁰⁸ The criterion used to identify cases of predominance (i.e. when a proportion is “sufficiently large” to make economic agents identifiable) is not specified in Guideline ECB/1998/NP28, nor in other official EU legislation. Following an investigation undertaken in 2002 within the ESCB which was aimed at identifying national practices in the treatment of confidential data in the context of balance of payments and international investment position statistics, the share of 85% has been indicated as a general rule of thumb to identify predominance. Similar guidance has been applied to other statistics, including monetary and financial statistics.

of confidential statistical information". ESCB members transmitting such data must also implement similar measures.

Article 8a addresses the exchange of confidential statistical information between the ESCB and the European Statistical System (ESS). Article 8a(1) states that the transmission of confidential data by an ESCB member that collected the data to an ESS authority may occur "provided that this transmission is necessary for the efficient development, production or dissemination, or for increasing the quality, of European statistics within the respective spheres of competence of the ESS and the ESCB and that this necessity has been justified". Any further transmissions must also be authorised by the collecting authority, and data must not be used for non-statistical purposes (as per Articles 8a(2) and (3), respectively). Article 8a also sets out further considerations for the exchange of information between ESS authorities and ESCB members. As above, similar measures must be taken to protect confidentiality.

10 Compliance regime

The ECB must ensure that reporting agents comply with their reporting obligations as set out in the legal acts on the ECB's statistical requirements. To this end, Article 7(1) of Regulation (EC) No 2533/98²⁰⁹ empowers the ECB to impose sanctions (within the limits set out in Article 7(4)) if a reporting agent's legal obligations are infringed.

The ECB's non-compliance regime for MFI balance sheet statistics has been in place since 2004. A streamlined non-compliance regime concerning both statistics on the MFI balance sheet and statistics on interest rates applied by MFIs to deposits and loans vis-à-vis households and non-financial corporations was adopted in August 2010.²¹⁰ The current regime consists of an unpublished guideline (ECB/2010/NP15) and a published decision (ECB/2010/10²¹¹). The published decision explains in broad terms the scope of application of the non-compliance framework, stages in the non-compliance procedure and principles for the application of sanctions, while the unpublished guideline contains detailed information on the logging and reporting of non-compliance and the calculation of sanctions.

To ensure equal treatment of reporting agents, the ECB's non-compliance regime has adopted a harmonised approach to the logging and reporting of infringements by NCBs, the calculation of possible sanctions and the steps to be followed in an infringement procedure. NCBs follow the procedure institution by institution, using a common approach which recognises degrees of seriousness in non-compliance. The key aspects of the MFI balance sheet statistics non-compliance regime are set out below.

- (i) Types of infringement: Sanctions may be imposed in the event of failure by the actual reporting population to comply with the minimum standards set out in Annex IV to Regulation ECB/2013/33²¹². As discussed in Section 2.8, these standards relate to transmission (in relation to timeliness and technical reporting requirements), accuracy (in relation to linear constraints and data consistency across frequencies) and conceptual compliance (in relation to definitions and classifications). Sanctions may also be applied in the event of serious misconduct, which includes cases where there is systematic or intentional reporting of incorrect, delayed or incomplete data or an

²⁰⁹ Council Regulation (EC) No 2533/98 of 23 November 1998 concerning the collection of statistical information by the European Central Bank (OJ L 318, 27.11.1998, p 8).

²¹⁰ It was subsequently updated in January 2017 with respect to MFI interest rate statistics. Other statistical domains have also been added to the framework since 2010.

²¹¹ Decision of the ECB of 19 August 2010 on non-compliance with statistical reporting requirements (ECB/2010/10) (OJ L 226, 28.8.2010, p.48).

²¹² Regulation (EU) No 1071/2013 of the European Central Bank of 24 September 2013 concerning the balance sheet of the monetary financial institutions sector (recast) (ECB/2013/33) (OJ L 297, 7.11.2013, p. 1).

insufficient degree of diligence or cooperation by the reporting agent with the relevant NCB or the ECB.

- (ii) Logging of infringements: One of the circumstances taken into account when deciding whether to impose a sanction is the repetition and frequency of the infringements logged. It is therefore crucial that the system identifies the relevant period within which repetition and frequency is to be assessed. It should be noted, however, that a sanction may be imposed even for a solitary case of serious misconduct.
- (iii) Assessment phase and infringement procedure: If an NCB detects a case of non-compliance with the reporting requirements, it may give an early warning to the reporting agent concerned informing it of the nature of the non-compliance detected and recommending that corrective measures be taken to avoid its repetition. After repeated non-compliance logged by the NCB, an infringement procedure must be initiated unless (i) the ECB or the NCB considers, in view of the information provided by the reporting agent, that one or more of the cases of non-compliance is beyond the reporting agent's control; or (ii) the potential fine does not reach the minimum established threshold for the imposition of a sanction. If the ECB or the NCB initiates an infringement procedure, it will be carried out in accordance with Article 3 of Regulation (EC) No 2532/98, including the issuing of a written notification and the adoption of a reasoned decision by the ECB.
- (iv) Application of sanctions: The determination of a sanction follows a two-stage procedure.
 - In the first stage, an amount is calculated on the basis of quantitative aspects. In the event of infringements relating to timeliness, the seriousness of the infringement depends on the number of working days of delay vis-à-vis the NCB deadline. In the event of infringements relating to accuracy and/or conceptual compliance, the seriousness of the infringement depends on the size of the error. The amount of the sanction will also reflect the economic size of the reporting agent. It is relevant to note that the ECB does not take rounding errors or negligible errors into account. With regard to conceptual compliance, ordinary revisions, i.e. non-systematic revisions to the series reported within the period (month or quarter) following initial reporting, are also not regarded as cases of non-compliance. Article 7(4) of Regulation (EC) No 2533/98 establishes the maximum sanctions which the ECB may impose on reporting agents, namely €100,000 in the event of an infringement of the obligation of timeliness and €200,000 in the event of inaccuracy or conceptual non-compliance.

- In the second stage, the circumstances of the case (i.e. aggravating or extenuating factors) are taken into account, which may lead to the amount calculated in the first stage being increased or reduced. Aggravating circumstances include frequent infringements, inadequate cooperation, a record of earlier sanctions, or possible profits obtained by the reporting agent as a result of the infringement. Extenuating circumstances include good diligence and effective cooperation shown by the reporting agent, good faith, lack of impact of the infringement or a record of no (or infrequent) infringements.

The overall aim of the non-compliance regime is to encourage good reporting by MFIs rather than to impose sanctions. In practice, the regime has been effective in contributing to the quality of the statistics and has only rarely been applied. The non-compliance framework must be reviewed at least every five years, and the ECB monitors the national application of the logging procedure. This contributes to ensuring a level playing field among all reporting agents across the euro area.

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For specific terminology please refer to the [ECB glossary](#).

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