EUROPEAN CENTRAL BANK

EUROSYSTEM

# Euro area quarterly financial accounts

## 2015 quality report

April 2016

# Executive summary

The annual quality report is required by Article 7 of the ECB Guideline on reporting requirements in the field of quarterly financial accounts (hereinafter referred to as “the Guideline”).[1] It follows the basic principles of the ECB Statistics Quality Framework (SQF)[2] and includes a quantitative analysis of revisions and national accounting consistency.

The integration of the quarterly financial and non-financial sector accounts in the euro area accounts allows an exhaustive analysis of all sectors of the euro area economy. For the households and non-financial corporations sectors, there are no alternative comprehensive and timely data sources. The ECB publishes national quarterly financial accounts data and the complete euro area accounts, which it uses for internal briefings and publications. It also publishes two quarterly press releases on euro area accounts and, since November 2015, a quarterly report on the household sector.

Financial stability and macroprudential analysis for individual Member States is supported by financial accounts data in the “Risk Dashboard” of the European Systemic Risk Board (ESRB)[3]. Furthermore, financial accounts are part of the Macroeconomic Imbalance Procedure (MIP) scoreboard, the G20 Data Gaps Initiative (Phases 1 and 2), the G20 Mutual Assessment Process (MAP) and the IMF’s Special Data Dissemination Standard Plus (SDDS Plus).

Significant progress has been made in the past year in further implementing the new and more demanding ECB Guideline. Since January 2015 and following the first publication in October 2014 of the European System of National and Regional Account (ESA 2010) euro area aggregates, two data sets – an early release at around t+104 and a complete release at around t+120 – are published every quarter (in close cooperation with Eurostat). They contain the integrated accounts for the euro area, including non-financial sector accounts. In addition to the improvement in timeliness, there has also been an improvement in adherence to the ESA 2010 and in the detail available at the sectoral, instrument and flow level. In the second half of 2015, a further major milestone was achieved, namely the first transmission of national from-whom-to-whom data for securities.

**Revisions** to the first data releases in 2015 were still partly due to the changeover to the ESA 2010 in 2014 and the related ongoing revisions to source statistics and compilation practices. Nevertheless, the first releases of the data tended to provide the correct development of the growth rates, i.e. accelerations or decelerations of the

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1 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 52, 7.1.2014, p. 34.

2 http://www.ecb.europa.eu/pub/pdf/other/ecbstatisticsqualityframework200804en.pdf

3 http://www.esrb.europa.eu/pub/rd/html/index.en.html

respective financial indicators were correctly identified, particularly for non-financial corporations, and to a lesser extend for households.

**The euro area financial accounts are internally consistent.** This consistency is achieved by integrating all input data following an agreed compilation strategy. Moreover, the euro area financial accounts as part of the integrated euro area accounts are fully consistent with the non-financial sector accounts ("vertical consistency") for the financial corporation and general government sectors. For the households and non-financial corporations sectors and the rest of the world, there are statistical discrepancies between the financial and non-financial accounts. Given their size, these discrepancies are currently being investigated in more detail and statistical compilers have intensified cooperation on this issue. The size of the required balancing adjustments applied by the ECB to national or euro area input data has remained broadly unchanged.

# 1 Introduction

## Quarterly financial accounts as part of the euro area accounts

Integrated accounts contribute to the ESCB's assessment of risks to price stability and have enhanced not only monetary analysis, but also economic and financial stability analysis. This includes monitoring the relationships between financial investment, capital formation, savings and financing, movements of financial wealth, asset prices, and indebtedness and their impact on consumption, savings and output. Furthermore, counterpart sector ("from-whom-to-whom") information shows who is financing whom by deposits and loans (and securities, as of 2016).

The ECB has compiled quarterly integrated financial and non-financial accounts by institutional sector (euro area accounts) in cooperation with Eurostat since mid-2007. Euro area accounts data are published by the ECB in the Economic Bulletin (Table 3.7 of the Statistics section) and the Statistics Bulletin (Section 3, Euro area accounts). Moreover, two quarterly press release describing economic and financial developments for the euro area with a breakdown by institutional sector are also published: the first focuses on households and non-financial corporations and the second presents the final data for all sectors.

Financial stability and macroprudential analysis for individual Member States is supported by financial accounts data in the ESRB Risk Dashboard[4], namely comprehensive debt measures for households and non-financial corporations. Furthermore, financial accounts are part of the MIP scoreboard. Three of the 11 MIP scoreboard headline indicators and two of the 12 ESRB Risk Dashboard indicators are based on financial accounts data (see Annex 1). Moreover, Phases 1 and 2 of the G20 Data Gaps Initiative involve sector accounts for the measurement of risk monitoring, interconnectedness and shadow banking. The G20 Mutual Assessment Process (MAP) and the SDDS Plus data requirements of the IMF draw on financial sector accounts

Implementing the new ESA 2010 international statistical standard and the new ECB Guideline on quarterly financial accounts was a major change in 2014. The first publication of ESA 2010 euro area aggregates on 27 October 2014 was accompanied by the ECB's dissemination of ESA 2010 national data on the stocks and flows of financial assets and liabilities. As of January 2015, two datasets are published every quarter: an early release at around t+104 and a complete release at around t+120. This Quality Report focuses on the changes in data availability in 2015.

[4] http://www.esrb.europa.eu/pub/rd/html/index.en.html

## Structure of this report

Section 2 briefly reviews the institutional and legal framework for compiling euro area financial accounts. Section 3 explains the quality monitoring procedures and presents the latest developments in the quality of the euro area financial accounts in terms of coverage, consistency and accessibility, with a special focus on the implementation of the new methodological framework. Section 4 outlines planned improvements in 2016. Section 5 presents country-specific recommendations for further enhancements and outstanding compliance cases.

# 2 Institutional and legal framework

## 2.1 Institutional framework for compiling euro area financial accounts

The compilation of euro area financial accounts is based on four main statistical data sources that jointly determine the overall quality of the statistics. These sources are (i) the quarterly national financial accounts (financial balance sheets and transactions) provided under the ECB Guideline; (ii) the monetary financial institution (MFI) balance sheet statistics and other sources from the ECB's monetary statistics (e.g. on investment funds); (iii) the quarterly financial accounts for general government; and (iv) the quarterly euro area balance of payments (b.o.p.) and international investment position (i.i.p.).

This report mainly focuses on the national financial accounts regularly transmitted by euro area national central banks (NCBs), in some cases in cooperation with national statistical institutes, under the ECB Guideline. This dataset covers time series on financial balance sheets, financial transactions and – since September 2014 – other changes in volume for institutional sectors broken down by financial instrument, original maturity and debtor/creditor, as specified in the Guideline. Although separate quality reports for the other euro area statistics are available, the integrated nature of the euro area financial accounts requires references to these other data sources in this report.

## 2.2 Legal framework

The requirement for this quality report on quarterly euro area financial accounts derives from Article 7 of the Guideline, which states:

*"1. The ECB and the NCBs shall monitor and promote the quality of the data reported to the ECB.*

*2. The Executive Board of the ECB shall report yearly to the Governing Council of the ECB on the quality of the quarterly euro area financial accounts. The report shall address, at least, the coverage of the data, the extent to which they comply with the relevant definitions, and the magnitude and frequency of revisions."*

In line with paragraph 1 of Article 7, the ECB and the NCBs monitor the quality of the data reported to the ECB on a regular, quarterly basis. Quarterly individual country reports and euro area quarterly compilation reports form the basis of this.

In line with paragraph 2 of Article 7, this quality report evaluates the coverage and timeliness of the data and the magnitude of revisions to the euro area data for the various sectors and financial instruments. In addition, this report also covers the coherence of the aggregated country contributions as a main determinant of the overall quality of the euro area financial accounts.

# 3 Quality of the euro area financial accounts

## 3.1 Quality assurance procedures

The transmissions of quarterly national financial accounts data are regularly checked for completeness and internal consistency, as well as for external consistency with related statistics (e.g. non-financial sector accounts, MFI balance sheet statistics, investment fund statistics, government finance statistics and b.o.p statistics). The results of the consistency checks are compared with the metadata regularly transmitted by the euro area countries. The metadata transmissions, which are also governed by the Guideline, cover revisions and major events, but also, on a voluntary basis, major balancing adjustments. The metadata constitute a valuable instrument for understanding major data developments and taking appropriate compilation decisions. The transmission of other changes in volume, which facilitates the analysis of changes in financial balance sheets due to asset price changes, became mandatory as of September 2014.

## 3.2 Changes in data availability in 2015

In January 2015 a quarterly **early release** of preliminary euro area data was added to the full release of euro area and country data. The early release improves the availability of the euro area accounts from t+120 to around t+104 (see Table 1). It is the basis for internal briefings, as the data cover the full financial and non-financial accounts for the household, non-financial corporation, government and financial corporation sectors to a large extent. The early release is not complete, mainly due to strict embargoes applied by Eurostat to quarterly non-financial accounts for the euro area government sector, which has negative spillover effects on the publication of the non-financial accounts. The early data release is accompanied by an ECB press release focusing on households and non-financial corporations. The full release covers the financial and non-financial accounts of all institutional sectors, including complete accounts for general government.

**Table 1**

Release dates in 2015S

| Reference quarter | Early release of euro area data with complete data on households and non-financial corporations | Calendar days after reference quarter | Full release of euro area and country data | Calendar days after reference quarter |
|---|---|---|---|---|
| Q3 2014 | 20 January 2015 | 112 | 28 January 2015 | 120 |
| Q4 2014 | 14 April 2015 | 104 | 30 April 2015 | 120 |
| Q1 2015 | 13 July 2015 | 104 | 29 July 2015 | 120 |
| Q2 2015 | 12 October 2015 | 104 | 28 October 2015 | 120 |

Since January 2015 the publication of national quarterly financial accounts for all EU countries includes **data on revaluations**, which allows changes in asset prices to be analysed. The publication of the country data was also extended to include the **counterpart sector detail for deposits and loans**. This facilitates the analysis of which sectors grant loans to households and non-financial corporations. In addition, NCBs transmitted counterpart sector detail for security holdings ("from whom-to-whom") for the first time in October 2015, in preparation for a further extension of the analysis in 2016 (see Section 4).

In addition to the regular press releases on euro area data, a new quarterly **household sector report** presents comprehensive country data based largely on the financial and non-financial sector accounts. The household sector report was published for the first time on 10 November 2015. Because it provides cross-country comparisons, it received considerable media attention.

## 3.3 Consistency and comparability of financial accounts

The data used in the analysis in Section 3 refer, in line with previous quality reports, to data available as of October 2015. It should be borne in mind that the degree of consistency is only one of several indicators of accuracy. An absence of inconsistencies is therefore not necessarily proof of superior quality. However, a high level of systematic inconsistencies indicates that there are quality issues that require analysis and, if possible, improvement

### 3.3.1 Internal consistency: horizontal consistency by financial instrument

**The euro area financial accounts are internally consistent.** Internal consistency refers to the national accounting identities and to hierarchical relationships.[5] This includes horizontal consistency, which is defined as the equality between the sum of (transactions in) financial assets and the sum of (transactions in) liabilities for each financial instrument (i.e. the sum of quoted shares issued by the resident sectors and the rest of the world equals the sum of quoted shares purchased by the resident sectors and the rest of the world). **The individual national financial accounts datasets as transmitted to the ECB are internally consistent.**[6] However, the euro area accounts are not the simple aggregation of the national data, as they need to be combined with other euro area statistics (in particular, euro area b.o.p./i.i.p. and MFI balance sheet statistics) to obtain genuine euro area accounts. Horizontal

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[5] Internal consistency covers the following four elements: (i) aggregation consistency: total economy (transmitted sector total) = sum of sectors (sub-sectors); (ii) horizontal consistency: assets (sum of relevant sectors) = liabilities (sum of relevant sectors); (iii) balancing item consistency: transmitted net lending/net borrowing calculated from the financial accounts (B.9F) and net financial worth (BF.90) = assets (sum of relevant instruments) – liabilities (sum of relevant instruments); and (iv) counterpart sector consistency: totals (as reported in Tables 1-2) = sum of relevant counterpart sectors (as reported in Table 3).

[6] Discrepancies of less than €10 million are considered acceptable in the national data. Internal discrepancies of more than €10 million have been observed for a few countries but they were generally corrected in later transmissions.

consistency is not generally maintained when all these components are put together, owing to discrepancies across data sources. Resulting imbalances between assets and liabilities for each transaction are then resolved by leaving data from the most reliable sources unchanged and amending data from less reliable sources, where needed.

The a priori horizontal imbalances (before data sources are reconciled) in the financial accounts continued to be significant. There are two underlying reasons for this: b.o.p./i.i.p. asymmetries[7] and differences between national financial accounts data and euro area building blocks. The latter occur mostly because national financial accounts compilers may adjust the statistics underlying the euro area building blocks or use different data sources. For example, loans granted by MFIs to general government as recorded in the financial accounts may differ from data in MFI balance sheet statistics because financial accounts compilers use government finance statistics, which are assumed to have a higher-quality counterpart sector assignment. (By contrast, where the sectoral classification is not obvious, reporting MFIs may sometimes misclassify entities such as local utilities.[8])

Table 2a shows the euro area horizontal imbalances resulting from the combination of the various data sources, i.e. before the balancing process, in the 28 October 2015 release.

## Table 2a

Internal consistency of input data by financial instruments

| | Horizontal imbalances<br>RMSE (EUR billions) broken down into bias component ▓ and variance component ░ 1) | | |
|---|---|---|---|
| | Current Guideline - ESA 2010 | | Previous Guideline - ESA 95^ |
| **Financial instrument** | **Q4 2013 to Q2 2015** | **Q4 2012 to Q2 2014** | **Q4 2011 to Q2 2013** |
| Gold and SDRs | 2.3 ↑ | 0.8 | 2.4 |
| Currency and deposits | 19.8 ↓ | 34.1 | 33.2 |
| Debt securities | 27.6 ↓ | 31.6 | 44 |
| Loans | 33.1 ↑ | 31.6 | 35.4 |
| Shares and other equity | 65.4 ↑ | 46.6 | 52 |
| Insurance and pension | 0 ↔ | 0 | 0 |
| Financial derivatives | 7 ↓ | 33.9 | . |
| Other accounts | 31.7 ↓ | 44.6 | 39.1 |

1) Increase (↑), no change (↔) and decrease (↓) in the indicator compared with its value one year ago.
^ Results are not fully comparable due to methodological differences.

Compared to the transmissions in the same quarter one year ago (second column), the inconsistencies remained broadly unchanged. There was an increase in transactions in monetary gold and special drawing right (SDRs), loans, shares and other equity, while transactions in the other financial instruments decreased or

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7 In order to compile appropriate euro area rest-of-the-world accounts, cross-border transactions and positions between euro area countries have to be converted into domestic ones; for example, loans between non-financial corporations of two euro area countries are recorded as loans between non-financial corporations rather than loans to and from the rest of the world. However, in the national accounts of euro area countries, the bilateral transactions and positions do not always mirror each other. These “asymmetries” are eliminated in order to obtain a consistent set of euro area accounts.

8 For an overview of the national data sources, see “Handbook on quarterly financial accounts for the euro area”, Chapter 3: http://www.ecb.europa.eu/stats/acc/html/index.en.html

remained unchanged. Furthermore, the situation is similar to that for ESA 95 data reported up to the third quarter of 2013 (third column).

### 3.3.2 Consistency with non-financial sector accounts: vertical consistency

The Eurosystem, in cooperation with the European Statistical System (ESS), produces integrated financial and non-financial accounts, which are published as the quarterly euro area accounts. Full coverage of instruments allows for the compilation of certain balancing items, such as net lending/net borrowing (from the non-financial accounts) and net financial assets (or "net lending/net borrowing as derived from the financial accounts"). It also enhances **"vertical reconciliation"** (equal balances for financial transaction accounts and non-financial accounts), both within euro area institutional sectors and with regard to the rest of the world. Currently, the euro area accounts comprise fully vertically integrated data for the financial corporation and general government sectors, while, for the non-financial corporation and household sectors, and the rest of the world, there are still statistical discrepancies between the financial and non-financial accounts.

Vertical imbalances are defined as the difference between the respective net lending/net borrowing from the non-financial and financial accounts. They arise because different data sources are used for the compilation of the financial and non-financial accounts. The discrepancy for the rest of the world is closely related to the "net errors and omissions" stemming from the b.o.p.[9] For the euro area accounts, the vertical discrepancies resulting from the national data and euro area building blocks are reduced (and completely eliminated in the case of financial corporations and government) by the effect of source selection criteria (which is sensitive to consistency considerations) and data adjustments made on the basis of expert judgment and mathematical methods. Some countries have established similar policies to eliminate the discrepancies, e.g. by adjusting financial and/or non-financial items for which the data sources are considered incomplete or of poor quality, while others do not make such "reconciliation" adjustments, in order to preserve the information from the respective data sources.

Table 2b shows the (a priori) vertical imbalances resulting from the comparison of the simple sum of national data sources, i.e. before the integration of euro area building blocks data and before balancing performed by the ECB. The vertical inconsistencies resulting from the national financial and non-financial accounts data transmitted in October 2015 are compared with the data transmitted one year ago. Vertical inconsistency by institutional sector has decreased slightly for the euro area

[9] In addition to the b.o.p. errors and omissions the following issues affecting vertical consistency were identified by the joint work of the ESCB Working Group on Financial Accounts and the ECB-Eurostat Task Force on Quarterly Sector Accounts. The consistent compilation of property income and the related financial balance sheets positions, differences in sectoral delimitation and in particular an incomplete and differential coverage of the financial sector. A lack of a coordinated revision policy of the financial and non-financial accounts is another reason for differences. The joint work of the two groups is continued in 2016 (see Section 4).

as a whole and for the household and financial corporation sectors. The discrepancy for the rest of the world is closely related to the "net errors and omissions" stemming from the b.o.p. The discrepancies for the resident sectors are also affected by the "net errors and omissions" as countries generally adhere to the b.o.p. data and thus have to offset these discrepancies in the financial and/or non-financial sector accounts.

**Table 2b**

Vertical consistency by sector (financial accounts versus non-financial accounts)

| | Vertical imbalances RMSE (EUR billions) broken down into bias component ▓ and variance component ░ [1] | | |
|---|---|---|---|
| | Current Guideline - ESA 2010 | | Previous Guideline - ESA 95^ |
| Sector/Account | Q4 2013 to Q2 2015 | Q4 2012 to Q2 2014 | Q4 2011 to Q2 2013 |
| Euro area | 70.5 ↓ | 106.2 | 63.9 |
| Households | 44.9 ↓ | 54.4 | 46.2 |
| Non-financial corporations | 84.3 ↑ | 74.3 | 52.9 |
| Financial corporations | 37.1 ↓ | 112.2 | 56.1 |
| Government | 10.2 ↑ | 6.2 | 17.1 |
| Rest of the world | 69.5 ↓ | 106.2 | 63.9 |

1) Increase (↑), no change (↔) and decrease (↓) in the indicator compared with its value one year ago.
^ Results are not fully comparable due to methodological differences.

Annex 3 shows discrepancies for the household, non-financial corporation and financial corporation sectors based on four-quarter cumulated transactions (to reduce the effect of short-term volatility of the financial accounts). Based on this information, the following paragraphs outline the countries with the largest discrepancies in the respective sectors for the second quarter of 2015.

For **households**, there was a slight decrease in the differences between the financial and non-financial accounts. Some countries reconcile the household sector, for example by adjusting financial and/or non-financial items for which the data sources are considered incomplete or of relatively low quality; other countries do not make such reconciliation adjustments in order to preserve the information from the respective data sources. In France, the reconciliation exercise is conducted once a year, as balance sheet data are revised on an annual basis. In many countries, vertical discrepancies tend to largely offset each other over time and, as a result, the four-quarter averages are small in most countries (see Annex 3). The largest discrepancies in absolute terms are observed for Ireland, Greece and Italy. Compared with country GDP, the discrepancies were much smaller in Italy than in Ireland and Greece.

For **non-financial corporations**, the discrepancies are significantly larger, in part because this sector is generally not reconciled. In some countries (e.g. Germany), this sector has been chosen to offset the "net errors and omissions" stemming from the b.o.p. In absolute terms, the vertical differences are largest in Ireland and Germany, followed (at much lower level) by Greece. Compared with country GDP, the discrepancies were much smaller in Germany than in Ireland and Greece, but were high nevertheless.

For **financial corporations**, the data availability is typically better than for the non-financial sectors, and many countries usually achieve consistency. Compared with previous years, remarkable improvements have been made, in particular in Belgium, France and Italy, where the differences in 2014 were high in absolute terms. For Ireland and Greece, the discrepancies are still large, both in absolute terms and as a percentage of GDP.

## 3.4 Revisions of the euro area financial accounts

Using the magnitude of revisions as a measure of quality requires taking into account the same caveats as explained above for measures of consistency: the absence of revisions is not always proof of higher quality, but persistently high or persistent upward or downward revisions signal data quality issues.

Since there is no formal revision policy yet in place for the source data used for the euro area financial accounts, the magnitude and frequency of the revisions to euro area financial accounts are mainly determined by the revision practices of the national datasets, which vary from country to country. Furthermore, revisions to the euro area building blocks used in the compilation of the accounts, in particular the b.o.p. and i.i.p., also have a significant impact on the magnitude and frequency of updates to the euro area financial accounts.

The euro area financial accounts currently have an open revision practice, i.e. the full time series (starting with the first quarter of 1999) may be revised by the ECB at any publication date to reflect updated source data. This is due to the large number of data sources and the fact that the financial accounts data of some euro area countries are still subject to methodological and/or data source changes that may affect the entire time series. Revisions are defined as the difference between the first and the most recent value for a given quarter.[10]

Frequent and/or sizeable revisions raise questions about the reliability of the statistics concerned. Therefore, analysing revisions provides the basis for conclusions on the reliability of the data, which is acknowledged in the Guideline, as Article 2(6) establishes an obligation on NCBs to report the reasons for revisions above a certain threshold. The recent change in the methodological standard in October 2014 from the ESA 95 to the ESA 2010 caused large revisions in source statistics at the end of 2014 and the beginning of 2015. In 2015 revisions were therefore still affected by the adaptation in the methodology and processes used in the compilation of the data. The revision analysis covers all publications in 2015, including the new early data releases focusing on households and non-financial corporations.

The financial accounts data are generally analysed in terms of changes in stocks due to transactions, referred to as growth rates. The Chart presents the development of the main indicators referred to in the 2015 press releases, i.e. the growth rates for financing and financial investment of households and of non-financial corporations.

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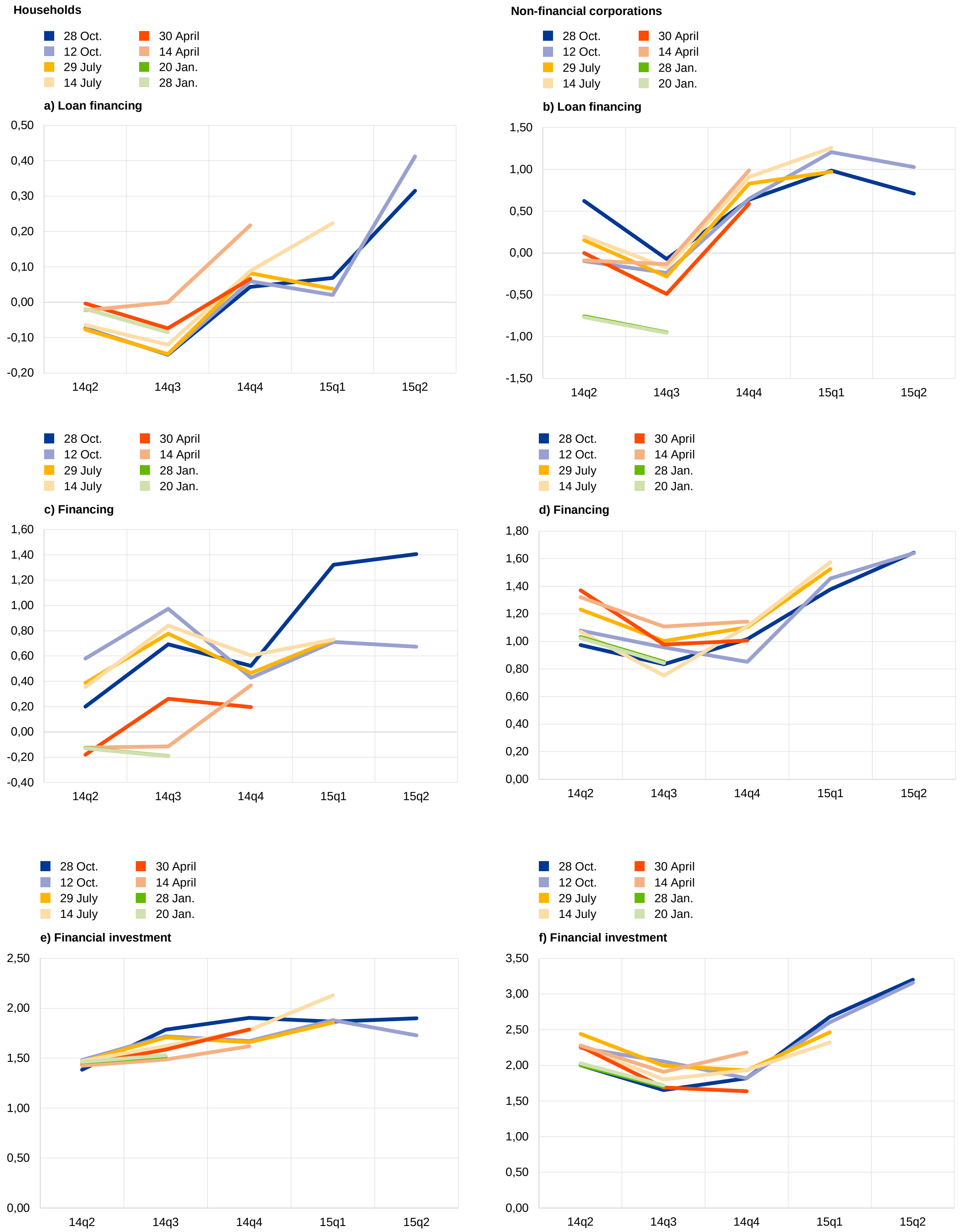
[10] For example, values for the third quarter of 2014 were first published 20 January 2015 and the most recent publication was 28 October 2015. In this case, the revision is compiled as the difference in the values published at these two dates.

Despite the fact that 2015 was still partly affected by revisions related to the changeover to the ESA 2010 and new data sources, the revisions to growth rates have been limited or even small in later releases. In particular, the data for household and non-financial corporation financial investment as well as for non-financial corporation financing have been very stable. Revisions to household financing as well as to loan financing have been somewhat higher for these two sectors. This was accentuated by the fact that growth rates in household and non-financial corporation financing have been close to zero in recent years. For example, while household financing used to be dominated by loans granted by MFIs and other financial institutions, in recent years household financing growth was dominated in some quarters by other accounts payable (e.g. late payments) because the level of net transaction in loans to households was low. For households, revisions to loan financing have been small relative to total financing, due to a higher number of revisions to other accounts payable.

## Chart

Development of growth rates of main euro area indicators in the eight data releases in 2015



The quantitative revision analysis is based on statistical measures similar to those used for other euro area statistics (in particular, the b.o.p. and i.i.p.) and they have been chosen to fit the requirements of financial accounts. The revision analysis is based on the revision of the growth rates. Particular attention is given to whether the first release tends to provide the correct direction of the growth rate development (directional stability).

Table 3 presents the following measures.

1. Positive revisions: percentage of positive revisions to growth rates. This measure indicates whether first estimates tend to be revised upwards (if above 50%), or downwards. In principle, positive and negative revisions should occur with roughly the same frequency. If the revisions are systematically positive, this may point to under-coverage in early estimates, which should be corrected.

2. Directional reliability: percentage of first assessments that provided the same sign for the change in a growth rate as the most recent assessment. This indicator measures the degree to which the first estimate correctly signalled an increase or decrease in the growth rate.

3. MACE: the mean absolute comparative error expresses the mean absolute revision of transactions as a percentage of the corresponding stocks. This indicator measures the volatility of revisions to growth rates.

**Table 3**

Quantitative revision analysis for the main euro area indicators

| | Positive revisions | Directional reliability | MACE | Stocks (EUR billions) |
|---|---|---|---|---|
| Household financing | 100% | 25% | 0.59% | 7,021 |
| *of which* | | | | |
| Loans | 0% | 100% | 0.12% | 6,213 |
| Household financial investment | 75% | 50% | 0.24% | 21,714 |
| Non-financial corporation financing | 25% | 100% | 0.08% | 30,017 |
| *of which* | | | | |
| Loans | 25% | 100% | 0.46% | 9,530 |
| Debt securities | 75% | 100% | 0.46% | 1,227 |
| Shares and other equity | 100% | 75% | 0.45% | 15,558 |
| Trade credit | 25% | 100% | 0.39% | 2,651 |
| Non-financial corporation financial investment | 50% | 100% | 0.21% | 20,666 |

These quantitative indicators have been computed on the basis of the quarterly observations from the second quarter of 2014 to the first quarter of 2015 (four observations), as released in successive data vintages up to 28 October 2015. Owing to the recent changeover to the ESA 2010, the number of observations for which revision indicators can be derived is too small to be able to draw strong conclusions. Consistently positive revisions, as in the case of household financing, as opposed to the absence of positive revision for household loan financing point to under-coverage of other accounts payable in the early estimates of household financing. Overall, the first releases of the data tended to provide the correct development of the growth rate (directional stability), i.e. accelerations or decelerations of the respective financing or financial investments were correctly identified, in particular for non-financial corporations, and to a lesser extend for households.

## 3.5 Accessibility of euro area and national quarterly financial accounts data

The integrated euro area accounts and the available national quarterly financial accounts data were published in line with the dates in Table 1.

The publication of national data by the ECB is stipulated in Article 3(2) of the Guideline, which extends it substantially, subject to an ESCB Statistics Committee (STC) assessment, as follows:

*"2. The ECB shall publish the euro area aggregates it compiles, as well as the 'national data' collected under Article 2, as described in paragraphs 3 to 5 thereof, as deemed relevant by the STC, except for data relating to the cells in rows 12-21 of Tables 3 to 9 of Annex I (referring to the counterpart sectors 'residents in other euro area Member States' and 'euro area RoW')".*

In line with the STC agreement that all data other than the exceptions specified in the Article 3(2) should be relevant and suitable for publication, the ECB publishes euro area aggregates for transactions, outstanding amounts, and revaluations (with some exceptions). The publication of the counterpart sector detail (other than for the specified exceptions) for deposits and loans and of revaluations started in January 2015, in line with the STC agreement. Revaluations are most relevant for shares and debt securities. Revaluations were published for the holdings of shares and debt securities of the main resident sectors. Additional data on revaluations will be published after a further quality assessment has been carried out. The ECB has also published all national data made available by the national central banks. These include all transactions and outstanding amounts, and revaluations for shares and debt securities.

Furthermore, on 18 June 2015 the ECB and the OECD signed a memorandum of understanding on the exchange of non-confidential statistical information, and a related service level agreement, which also covers the financial accounts. Under this agreement, the ECB transmits all published euro area and national financial accounts under the ECB Guideline to the OECD, which uses these data for its own dissemination purposes.

**Table 4**

Quarterly financial accounts backdata coverage by country (as of December 2015)

| Reporting area | Start of ESA 2010 quarterly financial accounts |
|---|---|
| BE/DE/ES/FR/PT/FI | Q1 1999 |
| LU | Q1 2002 |
| LT/LV/MT/SI | Q1 2004 |
| AT | Q1 2006 |
| EE/NL | Q1 2010 |
| IE/IT/SK | Q1 2012 |
| GR/CY | Q1 2012 |
| Euro area | Q1 1999 |

Countries were required, as of October 2014, to transmit ESA 2010-compliant series to the ECB from the fourth quarter of 2012 onwards. An extension of the backdata to start in the first quarter of 1999 will become mandatory in October 2017. Given the user need for long time series, the ECB had asked the Working Group on Financial Accounts (WG FA) for longer series (going back to the first quarter of 1999) on a voluntary basis. This request took into account that the ESA 2010 Transmission Programme requires annual financial accounts data as from 1995. Table 4 presents the quarterly data set provided to the ECB by each country. All but two countries have provided additional backdata on a voluntary basis. One country currently providing data from 2012 (Italy) intends to provide longer backdata to the ECB during the coming months.

# 4 Enhancements in 2016

The main priorities for the enhancements of the quarterly financial accounts in 2016 are as follows:

- A further **improvement in timeliness**, with the aim of achieving a first publication of the financial and non-financial euro area accounts at around t+94 will be decided upon in mid-2016. For this purpose the reliability of t+85 transmissions of national data and of the ECB's first euro area estimates will be assessed (similar work is ongoing for non-financial accounts).
- The publication of euro area and national data will include **who-to-whom data for debt securities, listed shares and investment funds shares** (in the case of national data except for the sector breakdown of non-resident counterparts).
- The **quality monitoring** of the national financial account will be enhanced by the implementation and maintenance of the national financial accounts templates (level 3) in the MIP Quality assessment, a new initiative to which the WG FA has actively contributed.
- Improvement of the **consistency with the non-financial sector accounts** through cooperation with the compilers of non-financial sector accounts, and methodological work in the joint ECB-Eurostat Task Force on Quarterly Sector Accounts (TF QSA). In 2016 this work will focus on (i) consistency of data on property income and related financial positions; (ii) better alignment between rest of the world sector data and b.o.p data, including coordinated revision practices; and (iii) discussion on quantitative objectives for vertical differences between financial and non-financial accounts.

# Annex 1
# Use of financial accounts-based indicators for macroprudential, macroeconomic imbalance and financial stability analysis

| Publication | Indicators based on financial accounts |
|---|---|
| MIP scoreboard | Private sector credit* flow on a consolidated basis (as a percentage of GDP) |
| | Private sector debt* on a consolidated basis (as a percentage of GDP) |
| | Financial sector liabilities (changes on a year-to-year basis) |
| ECB Financial Stability Review | Household debt-to-gross disposable income ratio |
| | Household debt-to-total financial assets ratio |
| | Corporate debt-to-GDP and leverage ratio |
| ESRB Risk Dashboard | Household debt-to-gross disposable income ratio (gross disposable income adjusted for pension schemes) |
| | Non-financial corporation debt-to-GDP ratio |
| ESRB White Book | Ratio of household debt to gross disposable income |
| | Ratio of household debt to total financial assets |
| | Corporate debt and leverage ratio |
| | Household saving rate |
| | Household investment rate |
| | Ratio of non-financial corporation debt to GDP |
| | Non-financial corporation leverage ratio |
| | Non-financial corporation profit share |
| | Non-financial corporation investment rate |
| | Ratio of household debt outstanding to gross disposable income |
| | Ratio of household debt outstanding to gross disposable income (national breakdown) |
| | Ratio of household debt to GDP |
| | Ratio of household debt to GDP (national breakdown) |
| | Ratio of household saving to gross disposable income |
| | Ratio of household saving to gross disposable income (national breakdown) |
| | Ratio of household investment to gross disposable income |
| | Ratio of household investment to gross disposable income (national breakdown) |
| | Ratio of non-financial corporation debt to GDP |
| | Ratio of non-financial corporation debt to GDP (national breakdown) |
| | Ratio of non-financial corporation debt to total liabilities |
| | Ratio of non-financial corporation debt to total liabilities (national breakdown) |
| | Ratio of non-financial corporation gross operating surplus and mixed income to gross value added |
| | Ratio of non-financial corporation gross operating surplus and mixed income to gross value added (national breakdown) |
| | Ratio of non-financial corporation investment to gross value added |
| | Ratio of non-financial corporation investment to gross value added (national breakdown) |
| G-20 MAP | Private debt* |

Note: Non-financial corporation debt, unless otherwise stated, comprises loans, debt securities, pension scheme liabilities and trade credit.
* Non-financial corporation debt excluding pension scheme liabilities.

# Annex 2
# Mathematical definitions of the quality indicators used:

(1) Revisions (R)

Revisions with a positive sign as a percentage of observations (N), with R and N referring to transactions:

$$\text{positive revisions}\,(\%) = 100 \times \frac{\text{count}(\mathrm{R}_{\mathrm{ij}} > 0)}{N}$$

(2) Directional reliability indicator (Q)

To assess whether the information on the direction of changes (i.e. whether a transaction increases or decreases), as contained in the earlier assessment, has been systematically altered by the revisions, a 2 x 2 contingency table can be drawn up. In this contingency table, the columns consist of positive and negative first differences of the earlier assessment $\Delta x_t^i = x_t^i - x_{t-1}^i$, while the rows consist of positive and negative changes of the latest assessment $\Delta x_t^j = x_t^j - x_{t-1}^j$.

Contingency table for directional reliability

| | $\Delta x_{t_1} > 0$ | $\Delta x_{t_1} \leq 0$ | Subtotal |
|---|---|---|---|
| $\Delta x_{t_k} > 0$ | $n_{11}$ | $n_{12}$ | $n_{11}+n_{12}$ |
| $\Delta x_{t_k} \leq 0$ | $n_{21}$ | $n_{22}$ | $n_{21}+n_{22}$ |
| Subtotal | $n_{11}+n_{21}$ | $n_{12}+n_{22}$ | N |

The directional reliability indicator is then derived as follows:

$$Q = \frac{n_{11} + n_{22}}{N}$$

(3) Mean absolute comparative error (MACE)

In the case of financial transactions, for instance net acquisition (purchases minus sales) of mutual fund shares, revisions cannot be properly related to the series value itself because transactions may have different signs and, even more importantly, their values may often be close to zero. Therefore, the revisions to the transactions are related to the corresponding end period outstanding amounts (denoted by $P(x)_t^j$) for assessing the relative size of the revisions.

An average of the absolute value of the revisions of the transactions scaled by the outstanding amounts can be taken across periods, resulting in the MACE indicator:

$$MACE = \frac{1}{N}\sum_{t=1}^{N}\left|\frac{x_t^j - x_t^i}{P(x)_t^j}\right|.$$



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