EUROPEAN CENTRAL BANK

EUROSYSTEM

EXTERNAL STATISTICS AND SECTOR ACCOUNTS DIVISION **ECB-PUBLIC**

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Euro area balance of payments and international investment position compilation

- Balancing mechanisms -

1. Introduction

Balance of payments (b.o.p.) statistics were originally compiled from reports used for the purpose of foreign exchange controls. When such controls were abolished in the context of market integration and the liberalisation of capital controls, b.o.p. compilers adopted banks' settlement data as a primary data source. This meant that the two entries in the b.o.p. – credits/assets and debits/liabilities – were recorded simultaneously, ensuring that accounts were broadly balanced. However, data reported through financial settlements began to diverge from the underlying transactions as a result of market complexities and further financial integration. Differences in timing, classification of b.o.p. items and geographical allocation resulted in the emergence of net errors and omissions (n.e.o.).

Recognising this reality, the ESCB designed an enhanced compilation system for the "other sectors" (households and corporations that are not monetary financial institutions (MFIs)). The primary purpose of the system, which was launched by the ECB in 2009, was to reduce euro area n.e.o. This enhanced compilation mechanism was discontinued in October 2014 with the introduction of the most recent methodological standards for b.o.p./international investment position (i.i.p.) statistics – BPM6 (IMF's Balance of Payments Manual – 6th Edition), pending a review of the methodology and its applicability to the new dataset. The review revealed that the mechanism was still appropriate and desirable from a statistical point of view and hence it was reintroduced in March 2017 and applicable to reference data back to 2008.

More recently, the ECB conducted another review of the enhanced compilation method. This analysis was part of the efforts to obtain consistent financial transactions data in the euro area b.o.p. and the euro area accounts (EAA) statistics. The "rest of the world" sector in EAA statistics and the euro area b.o.p. portray the same economic reality regarding transactions of euro area residents with non-residents. The April 2020 release of euro area b.o.p. data achieved this consistency for the period from 2016Q1 to 2019Q4. An important tool to establish consistency between the two datasets was the introduction of a new common balancing mechanism, which replaced the single b.o.p. enhanced compilation method for periods from 2016Q1 onwards.

Section 2 of this note introduces the new balancing mechanism which is applicable to reference periods starting in 2016Q1, while Section 3 presents the main elements of the previous euro area compilation methodology, which is still in place for the reference data from 2008Q1 to 2015Q4.

2. New balancing mechanism

The new balancing mechanism applied jointly to the euro area b.o.p. and the “rest of the world” sector in EAA statistics takes into account a comprehensive information set, comprising the various EAA building blocks including the “unadjusted” euro area b.o.p. data, which primarily consist of the national contributions to the euro area aggregate. The adjustments in the new balancing mechanism aim to keep absolute n.e.o. in the euro area b.o.p. and “vertical discrepancies” in EAA statistics below a threshold which is currently set at €30 billion, broadly corresponding to 1% of euro area quarterly GDP.

The new balancing mechanism takes into account exceptional events (such as large corporate restructurings, mergers and acquisitions, etc.) and ensures their accurate and consistent recording across b.o.p. statistics, as well as the “domestic” sectors and the “rest of the world” in EAA statistics. Moreover, the mechanism considers a number of financial instruments whose transactions can be adjusted to reduce n.e.o. below the set threshold.

The selection of financial instruments that are candidates for adjustment rests on an in-depth analysis of the statistical characteristics of these time series, as well as on other accounting constraints such as intra-euro area asymmetries, which are often associated with n.e.o./vertical discrepancies at the euro area level. These financial instruments are:

1. direct investment in unlisted shares and other equity (F512 and F519);
2. other investment in other accounts receivable/payable (F89);
3. other investment in trade credits/advances (F81);
4. direct and portfolio investment in listed shares (F511);
5. portfolio investment in investment fund shares (F52).

Compared with the (old) enhanced euro area b.o.p. compilation method (described in Section 3), the new balancing mechanism extends the financial instruments potentially subject to adjustments to F512, F519, F81 and F89, while keeping the possibility to adjust F511 and F52. There is also a shift from portfolio equity liabilities (F511 and F52) to foreign direct investment (FDI) equity (F512 and F519). This reflects primarily an improved coverage of intra-euro area portfolio investment by households and non-financial corporations. On the other hand, the complex FDI equity transactions by large multinational enterprises, often involving several euro area countries, are frequently associated with large intra-euro area asymmetries. Moreover, the analysis of the underlying assumptions governing the previous enhanced euro area b.o.p. compilation method indicated that the practice of adjusting loans and currency and deposits (in other investment assets) of the financial corporations other than the MFIs sector is not necessary for more recent periods. This is due to a better statistical coverage of this sector, which includes, for example, insurance corporations and pension funds as well as special purpose entities (SPEs).

After applying the new coordinated balancing mechanism for the euro area b.o.p. and the "rest of the world" sector in EAA statistics, the adjustments are further redistributed to the additional breakdowns available in b.o.p. statistics (such as sector, instrument, currency and geographical details).

The methodology is applied to the b.o.p. and i.i.p., in the following sequence:

- the financial transactions described in this Section are adjusted when necessary;
- end-period positions (i.i.p.) are adjusted to reflect the changes in financial transactions, while keeping other flows (revaluations and other changes in volume) unchanged;
- in terms of geographical breakdown, adjustments are allocated either to specific geographical counterparts (if they can be identified), distributed proportionally or classified as "unallocated" in a residual number of cases;
- in terms of resident sector breakdown, adjustments are allocated either to specific sectors (if they can be identified) or distributed proportionally (across all sectors or a subset of sectors);
- consistency is maintained across monthly and quarterly frequencies using quarterly interpolation techniques.

3. The (old) enhanced euro area compilation method

Euro area b.o.p. data before 2008 were estimated by the ECB and were mostly derived from BPM5 aggregates with the necessary and possible corrections to adjust for methodological differences.[1] While there was no persistent bias in the euro area n.e.o. before 2008, unadjusted b.o.p. data developed a negative bias for the periods thereafter. On the basis of an in-depth ESCB analysis, the negative bias was believed to arise from three main factors:

- the comparison between the portfolio investment liabilities of each euro area country and assets held by residents in other countries of the world (as extracted from the International Monetary Fund's Coordinated Portfolio Investment Survey (CPIS)) revealed that the total holdings of euro area equity securities issued in Luxembourg, Ireland and Germany, including by other euro area countries, were underestimated;
- asymmetries in the recording of loan transactions between non-banks resident in the euro area, resulting from difficulties in identifying the counterpart country, were linked to limitations in the statistical coverage and the residency classification of special purpose entities;
- locational banking statistics from the Bank for International Settlements pointed to an underestimation of non-banks' deposits held abroad.

Against this background, an enhanced compilation method was designed for these items, preserving, to the extent possible, the properties of the underlying series. This method, which is still in place for the reference data from 2008Q1 to 2015Q4, had four principles:

i. revisions – more adjustments to time series that are subject to recurrent revisions;

[1] The basic principles and methodology used in the estimation process are described in detail in a dedicated explanatory note available in the "Sources and Methods" section of the ECB website.

ii. time series pattern – preserving the pattern of the original series;
iii. intra-euro area asymmetries – minimising intra-euro area asymmetries in other investment;
iv. errors and omissions – reducing errors and omissions.

More specifically, the enhanced compilation method was implemented sequentially (as described in Table 1): the enhancement was first performed on “portfolio investment, investment fund shares”, second on “portfolio investment, equity securities”, third on “other investment, loans” and finally on “other investment, currency and deposits”. After a specific item was enhanced, n.e.o. were recomputed and used in the enhancement of the subsequent item.

Table 1: Overview of the adjusted items

Item	Sectoral/maturity breakdown	Order of enhancement
Portfolio investment/Investment fund shares/Liabilities	Other sectors, Financial corporations other than MFIs	1
Portfolio investment/Equity securities/Liabilities	Other sectors, Non-financial corporations, households and non-profit institutions serving households (NPISHs), Listed	2
Other investment/Loans/Assets	Other sectors, Financial corporations other than MFIs, Long term	3
Other investment/Currency and deposits/Assets	Other sectors, Financial corporations other than MFIs, Long term	4

The methodology was applied to the b.o.p. (income and financial transactions) and i.i.p. in the following sequence:

- the four financial transactions described in Table 1 were enhanced;
- end-period positions (i.i.p.) were adjusted to reflect the changes in financial transactions, while keeping other flows (revaluations and other changes in volume) unchanged;
- the income account was improved by preserving the relationship (implicit yields) with the adjusted end-period positions;
- in terms of (extra-euro area) geographical breakdown, adjustments were allocated to offshore financial centres and “other countries” (these were implicitly calculated as the extra-euro area total less all specified extra-euro area geographical breakdowns);
- consistency was also maintained across monthly and quarterly frequencies, as well as between resident and counterpart sectors where applicable.