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**European Union and Euro Area Balance of Payments Asymmetries
Reflections on the Work to the Attention of the IMF Committee**

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European Union and Euro area Reflections on the work on Balance of Payments Asymmetries

The paper provides reflections on the work done by the Asymmetries Ad Hoc Committee and the Eurostat Technical Groups Asymmetries and Travel on the subject, in the perspective of the IMF BOP Committee of favouring actions for improving the quality of statistics worldwide. Comprehensive information on the work is provided in the annexes of the document. The document stresses the political environment that necessitated the carrying out of the work. It then indicates the two approaches, which were followed in parallel to tackle the issue. The paper indicates some achievements already obtained, and, as a conclusion, makes some proposals for the continuation of the work at the world level.

Introduction: Work Organisation

The work on Asymmetries is being carried out at EU level by two bodies: the Asymmetries Ad Hoc Committee (Chairman: Mr Kidgell) and the Eurostat Technical Group on Asymmetries (Chairman: Mr De Boeck). In these two bodies all Member States of the European Union participate, as well as, Eurostat and the ECB. Other technical groups participate in the work on the items they are responsible for (e.g. TG Travel). The mathematical model called “Global Method” was developed by Eurostat (but fully discussed within the above mentioned bodies).

1. Why undertaking the work on Asymmetries?

The existence of bilateral asymmetries affects clearly the quality of statistics. This is particularly true at the EU/ Euro area levels where statistics are produced by the aggregation of Member States’ data.

The necessity to set out high quality statistics is now crucial at EU level because these statistics are demanded for policy-making, in particular for the European Commission when conducting international negotiations on trade in services (GATS).

Since the creation of the euro on 1 January 1999, the ECB also needs accurate euro area statistics for supporting the conduct of the euro area monetary policy.

European BOP statistics are compiled by Eurostat and the ECB (Directorate General Statistics – DG-ST) following the same methodology. Basically, the aggregation of countries’ data is done using their BOP transactions with the non-EU/euro area residents. However the asymmetries issue still stays:

-the BOP used by the countries (“national BOP”) include flows with the other EU countries

-Intra EU data are still used at the EU level for the completion of the Internal Market¹.

-Although a split in the rest-of-the-world sector is required in the ESA 95, EU “national (economic and financial) accounts” aggregates are still done using the countries NA statistics which are based on data *with the sector “rest-of-the-world” and not the extra EU/euro area*. Inconsistencies between EU National Accounts and

¹ The main objective of the Internal Market is the deletion of barriers of any type in order to set up a unified market between EU countries. General information on intra EU transactions is needed.

EU BOP data occur, e.g. the current account where the difference approximately equals the Intra Asymmetries.

-Finally BOP countries data are not consistent with EU/Euro area data as their aggregation does not provide nets (credits minus debits) identical with the EU and Euro area nets.²

2. The two approaches followed at EU level

Two different approaches were used in parallel.

The bottom-up approach starts from detailed bilateral countries' figures, as for example the travel between UK and Spain, analyses the figures and underlying methodologies applied by the countries (including estimations) to assess the causes for discrepancies and solve them to a possible extent.

The top-down approach starts from EU and Euro area figures only (no countries' data), and calculate asymmetry-free figures with the use of a mathematical model (called "Global Method").

3. The bottom-up approach

This approach analyses in a critical way both the detailed EU countries data (including bilateral data) and the estimation methods to make corrections for back and recent data. It is a rather lengthy exercise but most valuable because the results are consistent between all sets of national and European statistics and also valid for the future.

Substantial reductions of asymmetries were obtained this way for the items travel and compensation of employees.

Travel³ asymmetries were notably reduced through (i) the revision of estimates made by Germany and Austria on the percentage of banknotes re-exchanged by homecoming travellers, (ii) the improvement of the French treatment of domestic banknote flows via the wholesale market of Zurich, and (iii) the increasing by 8% of the UK debits with Spain.

For Compensation of employees, the analysis of figures lead to a revision of the methodology. In particular for France, the estimates rely now on the number of French workers in countries in which they are not resident, the average salaries received and the social contribution paid. This has reduced the intra asymmetries of France by 1.2 billion Euro in 1998.

At present, important work is carried out to reduce the asymmetries due to the different ways EU Member States make the transition from CIF to FOB. Detailed information on the current practices is available and is being analysed.

A limit of the exercise relates to portfolio investment (and related income) where EU countries cannot provide a reliable geographic breakdown on the liabilities side following the creditor principle. Hence, no comparison is possible with the mirror assets broken down by debtor countries. Member States tend to consider for their liabilities the geographic allocation that would result from the use of partners' assets data. This approach conforms to the one applied for the Co-ordinated Portfolio Investment Survey.

² In order to be as clear as possible, the description is simplified : in practice the EU/Euro zone data are not computed by *pure* aggregation (of Extra EU/Euro zone Countries data) for all items.

³ See Eurostat Travel report 21/02 2000 pp 83-86

4. The top-down approach

a. description of the method

This approach uses exclusively the annual EU BOP (15 items only) with three “partners”: intra EU, extra EU and world. It was also used for the Euro Area.

Following this approach, a mathematical model (the Global Method) was built up. It can be described⁴ as a model using constraints (in this case mathematical equalities) and finding a unique solution by minimising an objective function.

The model used assumes that asymmetries are due to three types of errors:

- misallocation between items,
- geographical misallocation (between intra and extra),
- under or over evaluation of items.

In the model these errors are introduced by using three coefficients (multipliers) which are applied to each of the 15 items (example travel), one coefficient for credit and another for debit (3x15x2 coefficients).

Mathematical equalities are introduced in this way.

The mathematical resolution of the model is to determine all coefficients and so to solve the asymmetries.

The objective function to minimise is the classical Euclidean distance (sum of the square) of the coefficients. Because coefficients express the error (as a multiplier of each item), this can be interpreted as minimising the corrections done on the original data.

b. reflections on the method

It should be stressed that the method is purely mathematical, introducing no methodological BOP information.

The results are limited to the data produced by the mathematical solution: the output is the 15 BOP items for the EU aggregate with no asymmetries: the net of the intra equals zero.

The model does not provide data for EU Member States. There is no additional information on how countries data should be changed.

The results show that credits and debits are not corrected too much but net figures are corrected in a more important way.

The advantage of the method is to quickly produce figures with no asymmetries at EU level.

However,

- no correction is provided to countries data,
- no correction is provided for national accounts statistics,
- the new Extra EU is no longer consistent with the individual partners (they do not add up any more with the new Extra EU).

For the EU BOP, one big disadvantage of the method is that there is no reconciliation between the corrected data and the detailed data (in particular trade in services data, FDI data and quarterly data), even though there is no impediment to use the model with more detailed information.

In any case, as already stated above, the corrected data with the partner “extra EU” will not be consistent with the detailed geographical breakdown (which will not be corrected by the model).

⁴ For complete information see the doc BP/2000/02/E

c. future work

In the future it was proposed⁵ to introduce to the model “methodological BOP expertise” in the form of a proposed range of errors for every item so as that corrections made by the model are “guided” by these ranges. In practice, this will create constraints on coefficients which could not go beyond the intervals dedicated to each of them.

It is also possible to enter into the model already asymmetry-free figures before running it. This was done for Goods. A specific model was used for Trade statistics to eliminate the Asymmetries on Goods. The results of this model was used to enter the BOP model. In the future for portfolio income already asymmetries free figures could enter the BOP model before running it.

The CMFB approved the publication of asymmetry-free European balance of payments figures on an experimental basis during 2002. A “discrepancy item” in the expenditure component breakdown might be introduced in EU National Accounts in order to be able to enter the results of the BOP model into the NA without changing the European GDP figure.

5. Proposals for co-ordination of work on asymmetries at the World level

The work done at EU level was fruitful and will continue. Already concrete results have been obtained on asymmetries, and in a more general manner, BOP statistics were improved thanks to the methodological developments carried out in a very co-ordinated way by Eurostat and the ECB. Further results will certainly be obtained.

It would be however very helpful that co-ordination is reinforced at the World level.

It is proposed to do so by following the directions hereunder:

a. Carrying out bilateral analysis between major trading partners

There is a strong interest in Eurostat to carry out this type of analysis at least for the items trade in services and Foreign Direct Investment (FDI). It is important for trade negotiations to obtain quality statistics. Trade negotiations need accurate bilateral data. With the extension to trade in services (GATS agreement), countries need accurate bilateral data on services. This involves mainly cross border trade, following the standard components of BPM5 and the EBOPS (Eurostat-OECD classification now used in the new UN Trade in Services Manual), but also FDI which are a complement to Foreign Affiliates Trade in Services Statistics (FATS). The minimising of bilateral asymmetries (for trade in services and FDI) with the main partners of the EU (USA, Japan, Switzerland, Norway and Canada account for 60% of EU trade in services) but also others (China) is considered as very important by the services of the Commission.

Most probably other countries in the world would feel it helpful to exchange bilateral information with their main trading partners, and assess their bilateral figures, carrying bilateral analysis with their main partners. Eurostat would like to undertake such analysis in order to improve the quality of EU data with its main partners. EU bilateral figures with USA, Japan and Canada are provided in the Annex.

b. Extending the work at the world level

The work done at the world level by the IMF should also be taken into account for improving the data. In particular the analysis of World credits and debits (which

⁵ See the UK document

should be equal in theory) gives good insights for improving the data at other levels (including countries and EU levels). But an extension of the work with the geographical breakdown of (at least) some items would be helpful.

It is recognised that for some services the information on credits is of better quality at least for most services. This comes from different facts:

- enterprises' information is better for credit rather than for debit, as credit is their business

- the enterprises are more easily surveyed for credits than debits

For few services the reverse could be true.

But in both cases the disposal of the geographical information at the World level could be useful for countries, helping them to re-assess their debits using the credits information of their partners (or conversely). This could be done by the IMF but also by other organisations (WTO).

c. Exchanging experience with other trade/monetary unions

Other regions in the world are faced with identical asymmetries problems: in particular monetary or trade unions will feel the need to aggregate countries' data to build up the data of the region. For this reason the experience brought at EU level could be interesting to them (and conversely). Most probably, methods used in different regions for improving the statistics can be used in other regions. It would be interesting to obtain information on the work already done for the NAFTA. Contacts are also ongoing between the ECB and the South African Customs Union.