



Thirty-Second Meeting of the IMF Committee on Balance of Payments Statistics

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BOPCOM—19/15
For discussion

Asymmetries Arising from the CIF/FOB Adjustments in Recording International Trade in *BPM6* and *2008 SNA*.

Ongoing Investigations, Including the Use of Invoice Values

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EXECUTIVE SUMMARY

Guidance on how to measure international trade in goods shows some inconsistencies between the national and international economic accounts. The fact was first noted by Anne Harrison (Editor of the 2008 System of National Accounts (SNA)) in a 2012 paper of the IMF Committee of Balance of Payments Statistics (the Committee), and the argument has since been revisited in various fora, including the Committee, the Inter Secretariat Working Group on National Accounts (ISWGNA) and its Advisory Expert Group (AEG), the OECD's Working Party on International Trade in Goods and Services (WPTGS), Eurostat's meetings on trade, etc.

This paper summarizes the issue and outlines the emerging views from recent research into trade-related issues. It focuses in particular on a proposal by Statistics Netherlands and Germany's Bundesbank to use the invoice values, and the follow-up joint investigations by IMF and OECD via a stocktaking survey and a pilot exercise (both in 2019)—to gauge countries views on the merits of the proposal. It also brings complementary information on the CIF/FOB adjustments from the IMF/OECD databases, as well as trade-related World Customs Organization's (WCO) recommendations.

The paper argues that the initial country views from the investigations to date show little global support to the use of invoice values and encourages countries to consider re-examining their methodology of estimating trade and associated transportation costs with a view to reaching consistency between Balance of Payments Manuals (BPM) and SNA on measuring the international trade. It encourages inter-alia inter-agency collaboration (between the national accounts and balance of payments compilers) in countries as part of the process of reconciliation of trade data in the balance of payments and national accounts, as well as investigations and analyses of bilateral discrepancies in consultation with their main cross-border trade partners.

Committee members are invited to express their views on the proposed way forward.

Questions to the Committee:

- *Does the Committee support the need of reaching full consistency between BPM and SNA in measuring the international trade in goods?*

¹ Prepared by Ms. Silvia Matei, Balance of Payments Division, STA and Mr. David Brackfield, OECD

- *Does the Committee agree that, based on the outcome of the work so far by the OECD and the IMF in collaboration with countries, such consistency could give prevalence to the FOB valuation?*
- *Does the Committee consider it useful to gather further information from additional countries about the feasibility of using invoice values (transactions) to assist compilation of imports/exports in BOP/NA?*
- *Is the Committee supportive of the idea that international organizations engage more actively in recommending countries to re-examine their methodologies of measuring trade (and associated transportation costs) and foster bilateral reconciliation exercises towards reducing trade asymmetries?*
- *Does the Committee agree that the WCO be involved in ongoing discussions around bilateral data asymmetries, given that encouraging countries to adopt the UCR recommendation would provide information to reconcile these asymmetries?*

I. INTRODUCTION

1. **This paper is the result of a cooperation between the IMF and the OECD and reflects the results of recent joint investigations undertaken among member countries.** It is structured in five sections, as follows. Section I discusses the origin of and the summary of the conceptual difference between the *2008 SNA* and *BPM6* regarding the measurement of international trade in goods and associated services. Section II covers more recent discussions on the topic, focusing on the proposal by Statistics Netherlands and Germany's Bundesbank to use the invoice values, and the follow up joint investigations by IMF and OECD via a stocktaking survey and a pilot exercise—to gauge countries views on the merits of the proposal. Complementary information is offered in Sections III and IV, including trade-related World Customs Organization's recommendations and the results of the CIF/FOB adjustments from the IMF/OECD databases, respectively. Section V highlights the ensuing conclusions and addresses questions to the Committee on the proposed way forward.

II. ORIGIN OF THE CONCEPTUAL DIVERGENCE *BPM/SNA*

2. **Research into the measurement of international trade in goods and associated services undertaken after the adoption of the *2008 SNA* and *BPM6*, brought to light existing differences in guidance between the national and international economic accounts.** These are better understood when looking at some of the fundamental accounting principles, from the perspective of national vs. international economic accounts. To start with, both *BPM* and *SNA* have, over time, maintained consistency in recommending the recording of international trade in goods free-on-board (FOB), that is at the exporter's customs frontier (*2008 SNA* 3.149/ 14.70; *BPM6* 10.30). However, with the changes

introduced by the *1993 SNA* on the treatment of the cost of transporting goods² from the supplier to the purchaser, a discrepancy has been introduced. These changes have not been incorporated in either *BPM5* or *BPM6*.

3. ***BPM* recommendations regarding the recording of imports and exports of goods are largely driven by pragmatic considerations.** The application of concepts such as the change of ownership, market price valuation, and time of recording are fashioned around the use of customs recordings as the underlying source data, given its widespread availability. *BPM6* recognises that the principle of valuation of imports and exports of goods is the market price of goods at the border of the exporting country (FOB), irrespective of the delivery terms agreed by the supplier and purchaser (exporter and importer) (*BPM6* 10.30-31). However, transaction prices (invoices) are used in some cases, for example to estimate merchanting and processing activities, or in some cases of special commodities.

4. **The *SNA*, on its part, uses the actually-observed (contractual) prices for international trade transactions (the general valuation principle in *2008 SNA*).** It allows for a variety of recording bases, depending on the contractual agreements reached between the supplier and purchaser (*2008 SNA* 14.60). Accordingly, the cost of delivery of goods between supplier and purchaser (exporter/importer) may be integrated within the value of exported goods (merchandise value) or shown separately (as services procured from either resident or non-resident units), depending on whether the exporter or the importer is responsible for the delivery cost. This means that the point of change of ownership underlying the contractual prices may actually deviate from the point of uniform valuation of exports and imports at the border of the exporting country adopted by balance of payments (BOP). These differences create practical difficulties in reconciling for example the product recordings within the Supply-Use Tables (SUT) with the FOB values in the BOP.

5. **This apparent inconsistency on the topic between the two manuals was first raised by Anne Harrison (Editor of the *2008 SNA*) in a paper on the *FOB/CIF Issue in Merchandise Trade/Transport of Goods in BPM6 and 2008 SNA*.** In her paper ([BOPCOM 12/30](#)), presented at the IMF's 2012 Meeting of the Committee on Balance of Payments Statistics (BOPCOM), the author highlights the roots of the difference in guidance between the two manuals. At the same time, it seeks ways to reconcile the concept of a uniform (FOB) valuation basis in the recording of imports and exports with the recognition that NA uses a variety of different bases to record cross-border trade.

6. **Apart from the desirability of restoring full consistency between the *BPM6* and the *2008 SNA*, Anne Harrison's paper also advocates for a careful review of the methods for estimating the freight (and insurance) costs on goods.** This should also

² The term is understood here to include both freight and insurance.

extend to certain categories of goods, such as goods not recorded by customs, goods for processing, and merchanted goods, and equally consider new data available from ongoing modernisation (e.g., movement of goods by containers). These topics were subsequently the object of discussions in relevant various fora, some of which will be noted in the context of this paper as well.

7. **The issue was deferred for clarification by the Inter Secretariat Working Group on National Accounts (ISWGNA) and its Advisory Expert Group (AEG).** The 2013 ISWGNA meeting, recognised that while both *2008 SNA* and *BPM6* recommend recording the imports and exports of goods at FOB values, the *2008 SNA* does not fully reconcile the FOB valuation principle with the NA' output valuation at basic prices. It recommended that in the longer term, the agreed change of ownership principle for cross-border transactions should be applied consistently across the *SNA*, *BPM*, and International Merchandise Trade Statistics (IMTS). Such work would evidently entail the full involvement and cooperation of all partners involved.

III. CURRENT DISCUSSIONS

8. **The argument has since been revisited in various contexts, including in the more recent discussions on bilateral trade asymmetries.** Research and practical investigations into trade-related issues by both NA and BOP communities have been presented in various fora, including BOPCOM, ISWGNA/AEG, the OECD's Working Party on International Trade in Goods and Services (WPTGS), Eurostat's meetings on trade, etc. This section draws on the line of research undertaken by Statistics Netherlands³ and Germany's Bundesbank⁴ on the measurement of merchandise trade and international transportation costs from the perspective of NA and BOP, as well as follow-up investigations undertaken by the IMF/OECD among member countries.

A. Proposal to Use Invoice Values

9. **Both Statistics Netherlands and the Bundesbank take a pragmatic stance in their papers, drawing from their EU experience.** They illustrate practical challenges to bridging the conceptual differences when adjusting merchandise trade statistics (following *cross-border registration principles*) to the FOB concept (*change in ownership principle*) as recommended by *2008 SNA/BPM6*, and propose that consideration be given to using the actual transaction (invoice) values when recording the imports/exports in BOP/NA.

10. **The papers note that the practical issues encountered in undertaking the CIF/FOB adjustments may give rise to trade data asymmetries between countries and**

³ *CIF/FOB recording of imports and exports in the NA and BOP.* [COM/SDD/DAF\(2018\)](#)

⁴ *Measuring merchandise and international freight transportation costs in the BOP.* [\(SDD/CSSP/WPTGS\(2018\)8\)](#)

propose instead a recording of imports/exports using actual transaction values. In doing so, they point to the weak quality of the available source data (data gaps, lack of information on the residency of the carrier or inconsistency with data collected for international trade in transport services, fictitious imputations, etc.) and the cost-intensive methods to arrive to the uniform FOB valuation and to estimate freight/insurance related values. Arguably, they highlight the potential advantages in using the more consistent information on invoice values (widely available in the EU context), which would also better integrate the information on international transportation. The papers equally argue for a better alignment with the “market price” concept, and the potential to reduce bilateral trade asymmetries between countries, while also noting some possible downsides.

11. **From the BOP perspective, main potential advantages of this proposal noted by Germany’s paper are** (i) a reduced need for estimations (and hence possibly fewer or smaller asymmetries), notably where good quality source data (company records) are available; (ii) improved coherence between the valuation of ‘regular’ international trade in goods transactions and those associated with processing or merchanting; and (iii) an improved alignment with the valuation used for the domestic transport of goods and the related transport flows (as described in the *2008 SNA*).

12. **At the same time, the paper highlighted methodological implications to consider,** including in relation to (i) a mixed composition of goods (merchandise) and services (freight, insurance) in the values of imports/exports due to the lack of a uniform price valuation of exports/imports, thus redefining the borders between goods and services; and (ii) impracticability due to potential unavailability of invoice values, hence asymmetric recordings of imports/exports (company vs. customs records), notably in some large trading countries.

13. **This proposal to use trade invoice values has recently been discussed in various international fora (e.g., at the 2017 AEG, OECD’s 2018 WPTGS, Eurostat meetings).** While recognising that the use of actual transaction values for imports and exports is not consistent with the current SNA recommendations, the 2017 AEG meeting recommended an assessment of country experiences with CIF/FOB recording and developing a guidance note as part of the Research Agenda on Globalisation.

B. 2019 IMF/OECD Survey

14. **The 2018 WPTGS meeting recognised the general support among its members for a thorough review of the proposal by Germany (and the Netherlands) to use invoice values to record trade transactions in the BOP.** Considering the proposal’s merits to potentially contribute to reducing asymmetries, and to support global initiatives by providing valuable input to advance the research work for the update of international methodological standards, the meeting proposed to seek the views of member countries more widely. Thus,

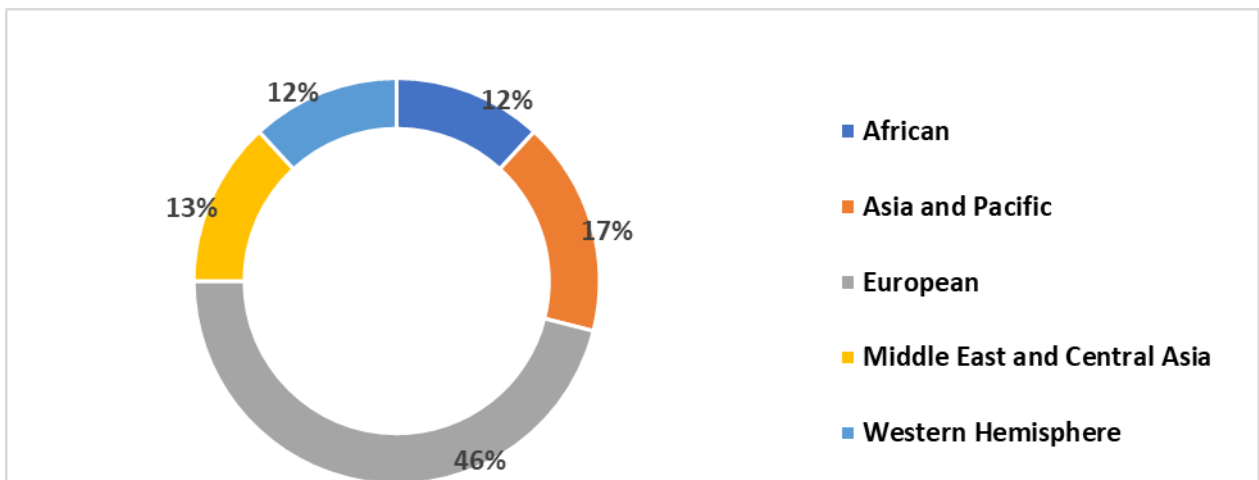
in early 2019, the IMF and the OECD included a separate module on the topic in a stocktaking survey to gauge country views on the merits of the proposal.

15. **The joint IMF/OECD survey targeted 36 OECD members and key partners and a selection of 65 non-OECD countries.** Overall, it covered 21 questions, grouped into three key areas, as follows:

1. Measuring Digital Trade;
2. Balance of payments measures for Global Value Chain analysis; and
3. The use of invoice values in the balance of payments.

16. **Overall, out of the 78 countries that responded to the survey, 66 provided responses to this topic, including 30 OECD and 36 non-OECD countries.** Figure 1 below shows the geographical distribution of responses. In a number of cases, the questionnaires had been completed by multiple statistical institutions in the country (each applying the questions relative to their area of statistical compilation, i.e., BOP, NA, etc.). It should be noted that the questions on invoice values in the BOP received extensive comments from countries. However, it would not be correct to state that this high level of input reflected heightened interest in the proposal, rather, in many cases, countries took this opportunity to outline problems they saw with this proposal.

Figure 1. Country Responses: Breakdown by Region



17. Generally, countries took one of the following three positions:

- favourable to the proposal (approximately 20 percent)
- unfavourable to the proposal (about half of the respondents); or,
- unsure, favouring more investigations (approximately 30 percent).

Figures 2 and 3 attempt to quantify these results by the three groupings, overall, and separately for the OECD/non-OECD countries.

Figure 2. Country Responses: Overall Results

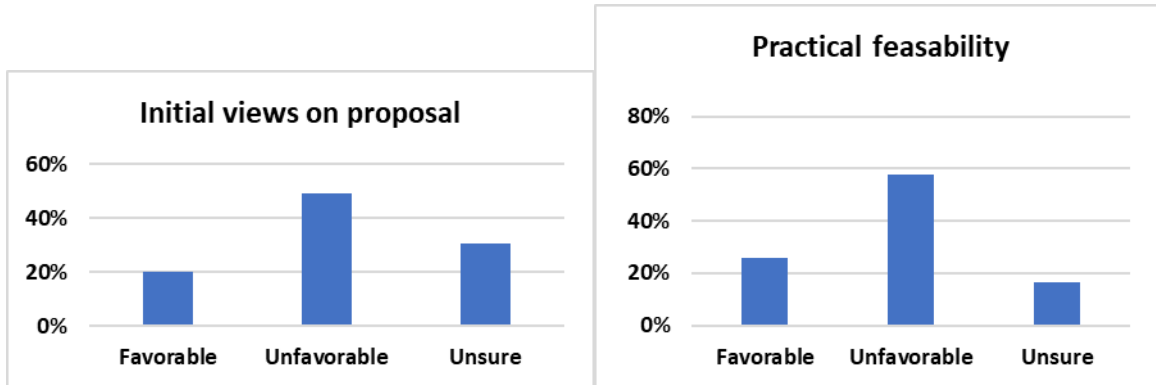
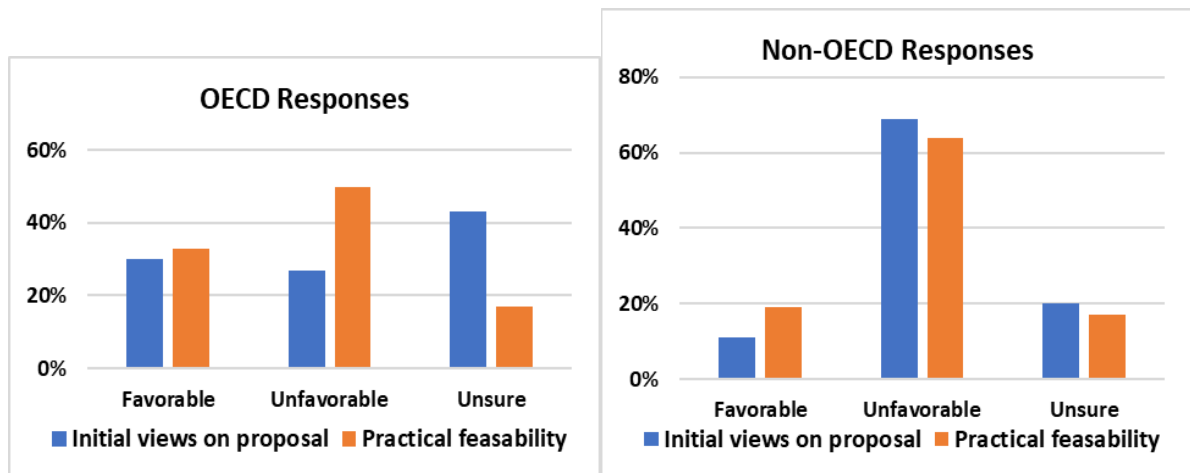


Figure 3. Country Responses: Breakdown by OECD/Non-OECD Countries



18. The group supporting the proposal (mostly EU countries) argued for the potential advantages, both conceptually and practically, while also pointing to current compilation issues faced by countries. Key issues noted were (i) a better alignment with the change of ownership principle, as well as providing (in most cases) true ‘market values’ (invoice values are considered closest to economic reality); (ii) eliminating the need to make the CIF/FOB adjustments—a possible source of asymmetries in both goods and related services—as countries use different estimation models; (iii) allowing for the separation of transportation costs; and (iv) getting closer to a real-time data collection. In many cases, these countries noted that they already have (some of) the data.

19. **However, this same group also raised some questions around the proposal and indicated the need for a careful evaluation within the revision process of the manuals.**

For example, the classification of goods may be missing resulting in a mixed composition of goods and services, or there could be issues around the residence of the companies undertaking the transport. A constant point made here was the need to ensure that the same statistics aren't collected twice, as having international trade statistics collected by customs authorities and national statistical institutes on differing methodological concepts wouldn't solve the problem at the heart of this proposal.

20. **The “unfavourable to the proposal’ group questioned the merits of the proposal while pointing to some of the advantages of the current system.** In general, they did not see a clear advantage in using the invoice values instead of the statistical data obtained via the customs and expressed concerns about a possible increase in respondent burden, resource implications for national statistical institutes, new legal requirements, maintaining coherence between the BOP/NA and IMTS, and creating breaks in series. Some indicated confidence in the data provided by their customs authorities, added to the long-established culture in exploiting these data, and suggested as an alternative to look into the possibility of having the customs offices collect invoice values (as a way of supplementing the information that might assist with the CIF/FOB adjustment).

21. **Many countries questioned that the CIF/FOB issue really causes large asymmetries** and that the new proposal actually reduce asymmetries given known issues around enterprise surveys (e.g., sampling errors, coverage, etc). Besides, most countries, for various reasons, declared not being able to use invoice values as their main source for international trade data, so they would continue using IMTS, with an immediate impact on bilateral asymmetries if some counterpart economies adopted invoice values.

22. **A number of countries agreed though that further investigations were needed.**⁵

C. Follow-Up Reconciliation Exercise

23. **The OECD and IMF launched a “follow-up reconciliation exercise” among a limited number of countries.** Eighteen countries agreed to participate. These were selected from a pool of countries that had expressed an interest in being part of a pilot study or had declared in the survey as having access to and/or using some of the invoice data already.

24. **The goal of this exercise was to examine comparatively international trade data as sourced via Customs (for EU Member States—Intrastat and Extrastat) and the corresponding invoice data.** Countries could decide the extent of the analysis depending on their available data and resources (but covering at least a few major companies, commodities

⁵ For a more in-depth summary of WPTGS results for the proposal (including full country answers), as well as the details of the topic-related questions covered by the questionnaire see [SDD/CSSP/WPTGS\(2019\)3](#).

and periods, for which data could be available or easy to trace). The data from this exercise would help provide some answers to questions raised in the survey and possibly shed some light on the size of the discrepancy between the FOB trade values and the invoice values, and implicitly on the role played by the CIF/FOB adjustments.

Results from the Follow-Up Reconciliation Exercise

25. **Of a total of 18 countries contacted for the pilot exercise, 10 showed interest, but in most cases stated that it would take time to undertake the research** (i.e., past the deadline for this paper). Some of the countries declined or postponed such an exercise due to limited capacity. To-date, data have been received from five countries,⁶ whose research covered relevant trade data series over a varying range of time periods (annual, quarterly, monthly data) and granularity (e.g., total, breakdown by country, or by trade regime) (see Appendix 2). For example, Kosovo conducted an investigation that compared the imports (Customs) with the related invoice values (enterprise survey targeting main traders) for 2018, which resulted in a comprehensive case study, including objectives, method, summary results and conclusions. Albania and Moldova undertook detailed exercises covering imports and exports (only Moldova) data series over various periods and with different breakdowns.⁷ Indonesia analysed comparatively monthly series of FOB exports (Customs) vs. bank recordings of export proceeds, while Belgium, owing to capacity issues, was only able to contribute overall estimates of the CIF/FOB correction covering EU-Intrastat values of exports and imports for 2015. For more information, see Appendix 2.

26. **Overall, the outcomes of these investigations show small differences.** In the case of Kosovo, the results show very small differences (less than one percentage), which corroborates the country's position—unfavourable to adopting the invoice values but supporting company data collection to measure freight, insurance, merchanting, and manufacturing services transactions in the BOP. The findings appear quite similar for Albania and Moldova, with the average ratios of invoice values to BOP imports ranging from five to six percentage. Their alignment with the estimated CIF/FOB ratios from the IMF/OECD databases suggests that the invoice values may not necessarily depart significantly from the corresponding FOB values. However, this may be a premature conclusion given the limited sample, and more country data would be needed to support such a conclusion.

27. **Feedback from the pilot countries also reveal ongoing initiatives to modernise their systems and improve trade data quality.** It is worth noting efforts, such as (i) enhancements to the data management systems in customs offices (Indonesia and

⁶ These countries are: Albania, Belgium, Indonesia, Kosovo, and Moldova.

⁷ Albania: monthly imports data by trade regime over a three-year period (2016–18); Moldova: imports and exports for Q1 of 2019 with geographical distribution by partner country

Kosovo); and (ii) countries' interest to engage in bilateral trade reconciliation exercises (Moldova).

IV. THE WCO'S UNIQUE CONSIGNMENT REFERENCE

28. **In June 2004, the World Customs Organisation (WCO) issued a recommendation concerning a “[Unique Consignment Reference](#)” (UCR) for customs purposes.**⁸ According to it, each export (consignment) would be assigned a unique transaction number which could then be used to track the export to the ultimate destination. In doing so, the export has the same unique number when it is recorded as an import and as such allows the possibility to reconcile international exports and imports. In addition, being integrated into the supply chain could allow invoice information (if available) to be obtained. The WCO recommended that the UCR be adopted by members of the United Nations in close consultation with their trade bodies and transport industries. Several points on the implementation of the UCR are relevant for this discussion, including that the UCR be (i) used for all international trade transactions; (ii) used as an access key for audit, consignment tracking, information consolidation and reconciliation purposes; (iii) able to uniquely identify data related to individual international trade transactions between a supplier and a customer at both the national and international level for a sufficient period of time in accordance with national data retention rules; and (iv) used in all relevant communications by all parties involved in the entire supply chain with regard to Customs and all other relevant regulatory agencies.

29. **Unfortunately, to date, and according to the WCO, only a limited number of countries have adopted the recommendation.** Countries involved include Korea (Customs), Kenya (all government), Singapore, Uganda, and Namibia (who is currently investigating the UCR in relation to a Customs Union with South Africa). The emerging recommendation here is to encourage countries to discuss the WCO's UCR with their Customs service with a view to implementation. This would foster a reduction in bilateral trade asymmetries and could provide better information on transportation costs, among others.

V. DATA ON GLOBAL TRADE DISCREPANCIES AND CIF/FOB ADJUSTMENTS

30. **This section complements the research already presented with some global figures drawn from IMF and OECD datasets.** The aim is to illustrate the size and importance of trade asymmetries at a global level, and to encourage countries to re-evaluate their methodologies towards improving the quality of their international trade data.

⁸ The project first started in 1995, and it was first formalised in 2001, with latest recommendation endorsed in 2004.

31. **Figure 4 draws on IMF’s *BOPSY 2018* data and shows the size of world asymmetries in goods and services.** Generally, global asymmetries reveal existing data limitations. Although by construction their size matters,⁹ it is not easy to distinguish the contribution of various factors. In relative terms, the global asymmetries of goods barely score in the range of two to three percentage (see Table 1 below). However, at country level, bilateral asymmetries in trade may show different scales, with potential impact on national policy decisions.

Figure 4. Global Discrepancy in Goods and Services Accounts

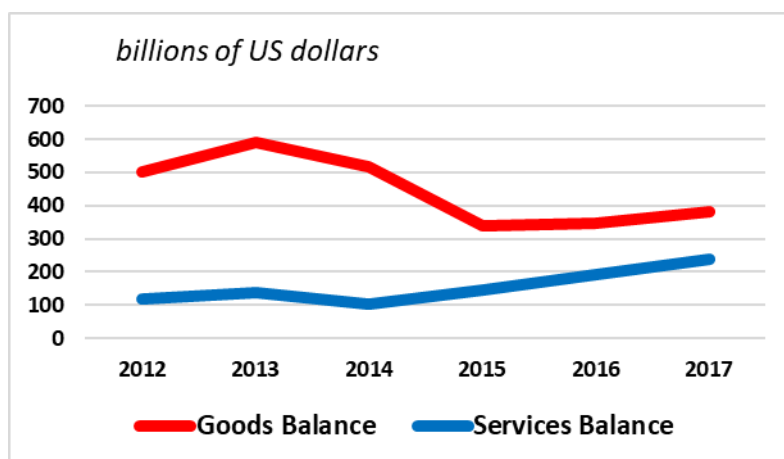


Table 1. Global Discrepancies of Goods as Percentage of Exports and Imports

	2011	2012	2013	2014	2015	2016	2017
	%	%	%	%	%	%	%
Goods Balance/Exports	2.5	2.7	3.2	2.8	2.1	2.2	2.2
Goods Balance/Imports	2.5	2.8	3.3	2.8	2.1	2.3	2.2

32. **Pursuing the analysis of the global trade asymmetries requires investigating the countries’ CIF/FOB adjustments and available information worldwide.** Although information on the transportation costs necessary to adjust merchandise trade statistics to the FOB concept in BOP goods is an important component of trade, little (official) data are available.

33. **Using the IMF archived *BPM5* data, the study derived the ratios of transportation costs¹⁰ to imports FOB.** Table 2 shows the average global ratios estimated

⁹ The global asymmetries for goods score among the largest within the major BOP aggregates. See *BOPSY 2018*, the Global Discrepancies in Balance of Payments table in Appendix 1.

¹⁰ The reported data in *BPM5* format include lines for trade adjustment for classification, which, for imports, are considered to approximate the CIF/FOB adjustment.

from a range of 54 to 68 countries for which such data were reported, excluding the US and Canada. Overall, these coefficients are quite stable (between 3.5 and 5.5 percentage) over a period of 14 years, suggesting that most countries use derived ratios to estimate freight and insurance costs that are kept unchanged over time. These findings corroborate similar results in the analysis undertaken by Anne Harrison in her paper using trade and freight data from *BOPSY 2012*.

Table 2. BPM5 Data: Average Estimated Ratios of CIF/FOB Adjustment for Imports

<i>BPM5</i> data	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
No of countries	54	54	54	60	63	64	65	63	67	68	66	55	41	33
Adj. CIF/FOB (%)	5.5	5.4	5.1	4.5	4.5	5.0	4.7	4.7	4.5	4.6	4.5	3.4	4.2	4.1

34. **In the context of measuring global value chains, the OECD undertook a study on the CIF/FOB margins, resulting in the OECD Database on International Transport and Insurance Costs (ITIC).**¹¹ The ITIC provides detailed information at the bilateral, product level international trade and insurance costs for more than 180 countries and partners, over 1,000 individual products, for the 1995–2016 time period. The OECD’s global trade-weighted average CIF/FOB margin was estimated to 6.2 percentage. The difference from the IMF’s average ratios from the *BPM5* database may be explained by the fact that the ITIC’s estimates rely largely on modelling due to the limited actual data availability from a small number of countries.

35. **While it is fairly possible that the resulting coefficients in either case do not depart significantly from the actual numbers (in reality), the resulting country estimates certainly contribute to the global asymmetries.** The conclusion clearly points to the need for countries to undertake a re-examination of these coefficients and the underlying methodology of estimation of trade and transportation costs, and to disseminate the information on a regular basis.

¹¹ The accompanying paper can be found at http://www.oecd-ilibrary.org/economics/estimating-transport-and-insurance-costs-of-international-trade_8267bb0f-en?crawler=true; and an update at <http://www.oecd.org/sdd/its/Estimating-transport-and-insurance-costs.pdf>.

VI. WAY FORWARD

36. **Efforts should continue to be focused on monitoring and addressing global discrepancies.** At the regional/international level, multiple initiatives are underway to monitor and address global discrepancies through: monitoring progress (data dissemination); capacity development initiatives undertaken by international organisations; promoting implementation of international standards and fostering between major trade partners.¹²

37. **Notwithstanding the merits of the proposal made by Germany and the Netherlands to use the invoice values for recording imports/exports in BOP/NA, the initial views drawn from the investigations to-date, show little support globally.** While the proposal presents conceptual and practical advantages, in particular among countries with good access to invoice values (such as the EU countries), its adoption may prove impractical in many respects, and does not actually guarantee a reduction in (bilateral and global) asymmetries. Nonetheless, some countries agreed that the proposal should be discussed further, including by the NA community. In this regard, guidance from the NA perspective is currently under development as part of the Research Agenda on Globalisation.

38. In this context, **completing the reconciliation exercise, and analysing the country results—including in relation to the CIF/FOB adjustments—may shed additional light.** The results to-date show that differences are very small. A wider set of contributions from the pilot exercise could further enrich the results, which could then be presented at the OECD WPTGS meeting in March 2020, and given the outcome, a final paper could be presented at BOPCOM 2020.

39. **The arguments presented along the paper largely converge towards maintaining the current FOB valuation of exports and imports, while supporting an open collaboration between the BOP and NA communities in resolving the existing conceptual differences.** However, this paper has demonstrated that amendments, both conceptually and practically, are required. Anne Harrison's paper ([BOPCOM 12/30](#)) proposed a number of alternative ways to bring the *BPM* and *SNA* into full consistency, which may be worth (re)reconsidering in the current context. To facilitate a review, these are included as a separate appendix to this paper (see Appendix 3).

40. **At country level, inter-agency collaboration (between the NA and BOP compilers) in the process of reconciliation of trade data in the BOP and NA becomes indispensable.** Investigations and analyses of bilateral discrepancies in consultation with the main cross-border trade partners should result in concrete actions to enhance data consistency. At the same time, all country agencies involved in the compilation of trade

¹² For example, the OECD has organised since 2016 bilateral meetings between interested participating countries to discuss trade asymmetries among major partners. Similar exercises are undertaken at the regional level (e.g., by Eurostat/ECB), as well as fostered during IMF's regional training sessions.

statistics should strengthen their collaboration and involvement to compile and disseminate harmonised trade data within NA, BOP, and IMTS. In light of the results presented in Section IV, countries should consider undertaking a re-examination of their CIF/FOB coefficients and the underlying methodology of estimation of trade and transportation costs, and to disseminate the information on a regular basis (e.g., *BPM6* Table 10.2).

41. Lastly, **given that the UCR is part of a bigger initiative towards transparency and tracking for an integrated supply-chain, and that implementing a UCR would ‘unlock’ invoice information, countries could further investigate its possible implementation in their countries.** This would require at a minimum cooperation with their Customs services, but a wider all-government approach (perhaps through the national statistical system) would be desirable.

Questions to the Committee: (see Executive Summary)

Appendix 1

Global Discrepancies in Balance of Payments Statistics

(Billions of U.S. dollars)

	Estimated						
	2011	2012	2013	2014	2015	2016	2017
Current Account Balances	350.9	407.9	397.0	412.6	264.0	311.6	444.9
Goods Balance	440.1	499.8	588.6	515.4	340.7	347.3	381.0
Services Balance	143.8	117.6	137.6	103.3	147.2	192.8	238.5
Primary Income Balance	-106.1	-72.7	-158.4	-48.7	-61.8	-68.9	-36.9
Secondary Income Balance	-127.0	-136.8	-170.1	-156.7	-162.1	-159.6	-137.6
Capital Account Balances	65.7	56.6	69.0	10.1	18.7	21.3	23.7
Financial Account Balances	68.6	57.0	263.5	366.4	81.6	45.8	239.9
Direct Investment Net	-174.4	-365.2	-318.9	-167.1	-380.8	-413.6	-133.6
Portfolio Investment Net ¹	-532.8	101.9	-551.1	50.8	297.9	418.1	-67.6
Financial Derivatives (other than reserves) and Employee Stock Options, Net	8.1	-81.1	86.9	11.3	-33.2	23.5	31.1
Other Investment Net ¹	670.3	359.6	479.7	311.3	529.0	415.0	190.3
Reserves minus liabilities constituting foreign authorities' reserves ²	97.3	45.9	571.6	163.4	-323.8	-398.4	219.1
Net Errors and Omissions	-347.6	-401.8	-197.5	-51.5	-198.9	-290.4	-228.9

Appendix 2

Pilot Exercise: Country Results

Albania

The country undertook a through exercise covering monthly imports data by trade regime over a three-year period (2016–18). The data allowed the calculation of annual average ratios of invoice values to BOP trade (see below). As indicated by the country, when estimating the trade on a BOP basis (FOB), various adjustments are applied to IMTS data supplied by the Statistical Office, including freight and transportation costs, smuggling, and the flows corresponding to goods under processing. It is interesting to note here that the fixed CIF/FOB coefficients (about 6 percent for freight and 0.3-0.4 percent for insurance) used by the country closely approximate the estimated ratios of invoice to FOB.

ALBANIA	2016	2017	2018
	%	%	%
Invoice value to BOP, Imports	5.9	5.7	5.5

Belgium

Owing to capacity issues to undertake a full-size exercise, the country only contributed the available estimates of the CIF/FOB correction covering EU-Intrastat values of exports and imports for 2015. Further estimates for subsequent years (2016–18) may be provided at a later date. The CIF/FOB correction is undertaken in two steps: (1) the invoice values are transformed into CIF (Intrastat only, Extrastat has always been CIF); and (2) a correction from CIF to FOB is calculated as percentage of total trade.

BELGIUM	INVOICE VALUE TO CIF, 2015	CIF TO FOB, 2015
	%	%
IMPORTS	+0,04	-1,67
EXPORTS	+0,16	n/a

Indonesia

Based on monthly exports data over the period 2014–18, Indonesia prepared comparative monthly series of FOB exports (Customs) and bank recordings of export proceeds (ITRS). The analysis shows that overall the difference revolves around 13–14 percentage. Indonesia closely monitors these recordings and imposes sanctions where the discrepancies between the two sources are above 10 percent. However, the differences noted in this exercise are said to

largely reflect administrative fees, discounts, netting, and subcontracted processing, however, without being able to distinguish individual factors.

Kosovo

During July–August 2019, the Central Bank of the Republic of Kosovo (CBK) has conducted an investigation into the feasibility of using invoice values as a principle of recording trade transactions in the balance of payments, which was documented in a country paper. The main objective of this investigation was to obtain evidence whether the change in source data would contribute to improving data accuracy and reducing asymmetries for international trade in goods and related transport and insurance flows.

The exercise was carried out for 2018 data. Two different data sources were used: customs data (ASYCUDA file) and company data (enterprise survey targeting main traders). The data from Customs are collected on a disaggregated basis, whereas the data from companies are collected through a specially-designed survey for the purpose that collected imports and exports data from the main traders in Kosovo. Data collected via the survey were analyzed and compared with customs data, and the main findings discussed with traders and customs authorities with the aim of addressing quality reporting issues.

The results of this investigation have shown that a decision to use either the Customs data or company data (invoice data) is a complex issue. In the case of Kosovo, evidence has confirmed that country's Customs authorities provide high quality international trade data; however, in some specific cases, such as freight, insurance and manufacturing services, the information available at Customs is not sufficient to compile reliable indicators. While, it was found difficult to decide which is the single best source of information if the country has to choose between Customs and surveys on traders, the latter may be too expensive to conduct on a frequent basis. With due respect to data accuracy, Kosovo finds it necessary to conduct surveys only to collect data on specific cases, as noted above, and for particular companies where the Customs data differ substantially from invoice data.

Figures below compare the declared value (invoice value) with Customs value for the 2018 imports of goods.

Figure 5. Top Six Traders
(imports above €50 million)



Figure 6. Ten Traders
(€20 mill > imports ≤ €50 mill)

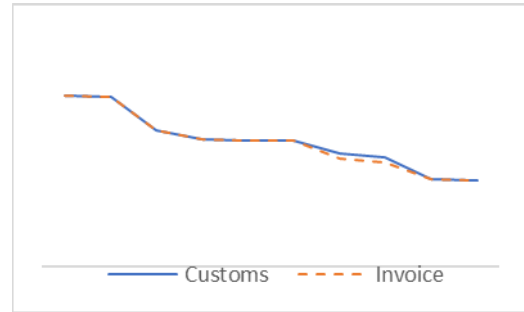


Figure 7. 39 Traders
(€10 mill > imports ≤ €20 mill)

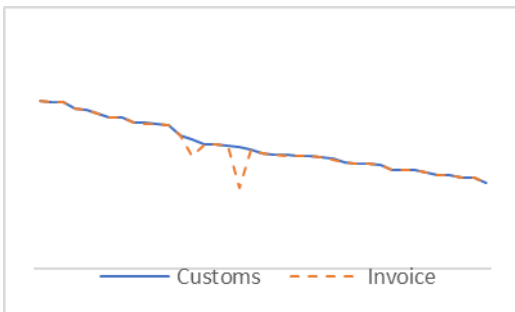


Figure 8. 52 Traders
(€5 mill > imports ≤ €10 mill)

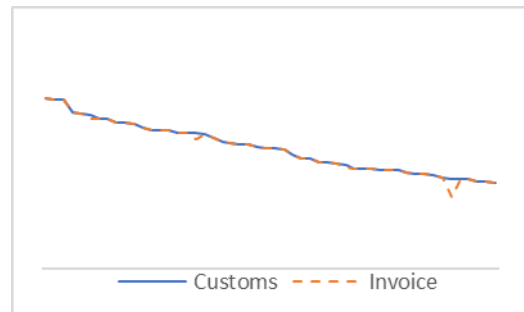


Figure 9. 473 Traders
(€1 mill > imports ≤ €5 mill)

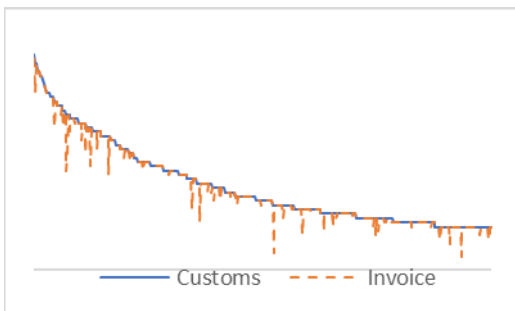
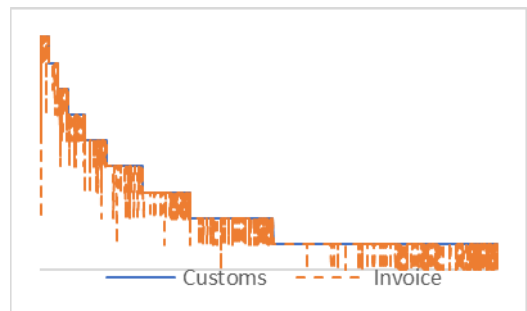


Figure 10. 2880 Traders
(€0.1 mill > imports ≤ €1 mill)



Overall, the results from this investigation show that for Kosovo the differences between the two data sources are very small, implying there is no need to change the customs values for the recording of trade in goods transactions; however, there is a need to collect company data to better measure related freight, insurance, merchanting and manufacturing services transactions in the balance of payments.

Moldova

The country supplied a detailed trade data set (excluding goods under processing) for the first quarter of 2019 with geographical distribution by partner country. Using country's information on the statistical and invoice values, we were able to estimate average ratios of invoice values to BOP trade for exports and imports (see below). In this case, it is interesting to note some high fluctuations in the estimated ratios for some countries, ranging from close-to-zero values (e.g., Spain, Sweden, Kyrgyzstan, etc.) to relatively high values (e.g., Estonia – 22 percent; Canada – 36 percent; Bangladesh – 19 percent, etc.), which may indicate a further need to investigate the data.

At the same time, the country expressed an interest in participating in bilateral data reconciliation meetings with their trade partners.

MOLDOVA		of which,		
		EU	CIS	Other countries
	Q1 2019			
	%	%	%	%
Invoice value to BOP- Imports	5.3	4.0	4.7	9.5
Invoice value to BOP- Exports	5.5	4.5	8.2	5.7

Appendix 3

Excerpt from Anne Harrison's 2012 BOPCOM paper ([BOPCOM 12/30](#)) on recovering strict consistency between *BPM6* and the 2008 *SNA*.

“There are four possible ways to bring the *SNA* and *BPM* back into strict consistency.

1. The *SNA* could change its recommendation on the treatment of domestic transportation back to what it was before the 1993 edition, that is to always treat it as a service and never integrated with the value of the good. Given that the new system has been in place for more than a decade, it is unlikely that *SNA* compilers would be enthusiastic about this. Further, ESA95 is based on the 1993 *SNA* and has the force of law within Europe. EU countries could not change back without a change to the appropriate legislation. This option therefore hardly seems worth pursuing. While moving away from the option discussed in chapter 28 would not require a change in legislation, it would run counter to practice common in a number of countries.
2. The *SNA* recommendation could, if necessary, be changed to be strictly consistent with *BPM6* when transactions with non-residents were concerned. This would require some clarification of *BPM6* first on items such as goods for processing and merchant goods. However, it would introduce consistency between the *SNA* and *BPM* at the price of inconsistency of treatment within the *SNA* on domestic transactions in goods as compared with international transactions in goods and a move away from transactions prices as the general basis for valuation in an important set of instances. This too would be likely to meet with considerable opposition from national accountants.
3. The *SNA* and *BPM* could stay as they are but with the inconsistencies are explained by a supplementary table showing how imports cif are converted to imports fob by showing how much of the difference is a rerouting and how much is a reclassification from goods to services. The extra clarification on goods for processing and merchant goods would still be necessary as input to this calculation.
4. The last option would be to consider amending the *BPM* guidelines. It would be possible to say that the recordings suggested in table 14.3A are conceptually correct, but because of the difficulties of answering the three questions listed above in description of that table, by convention, all imports of goods are treated as falling into one of the 2a, 2b, or 2c classes. However, there are two possible reasons to explore whether this convention should continue to be applied universally. The first of these has to do with the global imbalances reported in BOPSY. The second is a consideration about how the nature and cost of transporting goods has changed with the advent of containerization.”

References

Anne Harrison, “FOB/CIF Issue in Merchandise Trade/Transport of Goods in *BPM6* and the 2008 SNA” (BOPCOM 12/30)

Jens Walter, “Measuring merchanting and international freight transportation costs in the Balance of Payments (BOP),” (2018 OECD Working Party of International Trade in Goods and Services Statistics)

Mark de Haan and *Leo Hiemstra*, “CIF/FOB recording of imports and exports in the national accounts and the balance of payments,” (2018 OECD Joint Meeting of the Working Party on Financial Statistics and the Working Party on National Accounts)

David Brackfield, “Results of the 2019 WPTGS Stocktaking Questionnaire”, (2019 OECD Working Party of International Trade in Goods and Services Statistics)

WCO Unique Consignment Reference (UCR), 2014 WCO

Guannan Miao and *Fabienne Fortanier*, “Estimating transport and insurance costs of international trade”, 2017 OECD Working Paper

IMF 2018 *BOPSY* Global tables