Final Report of the Working Group on Balance of Payments Statistics Relevant for the Analysis of Global Value Chains

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ACRONYMS

AMNE/FATS	Activities of Multinational Enterprises Statistics or Foreign Affiliates Statistics
BOPCOM	IMF's Balance of Payments Statistics Committee
BPM6	*Balance of Payments and International Investment Position Manual, sixth edition*
CPA	Classification of Products by Activity
CPC	Central Product Classification
DI	Direct Investment
EBOPS	Extended Balance of Payments Services
ESUTs	Extended Supply-Use tables
GVC	Global Value Chain
ICIOs	Inter-Country Input-Output tables
IMF	International Monetary Fund
IMTS	International Merchandise Trade Statistics
ITRS	International Transactions Reporting System
MNEs	Multinational enterprises
OECD	Organisation for Economic Co-operation and Development
NA	National Accounts
STA	IMF Statistics Department
STEC	Services Trade by Enterprise Characteristics
SUT	Supply-Use tables
TEC	Trade by Enterprise Characteristics of goods
TiVA	Trade in Value Added
UBO	Ultimate beneficial owner
UIC	Ultimate investing country
WG	Working Group
WTO	World Trade Organization

EXECUTIVE SUMMARY

At its 2017 meeting, the IMF Committee on Balance of Payments Statistics (Committee) endorsed the creation of a Working Group (WG)[1] on Balance of Payments Statistics Relevant for Global Value Chain (GVC) Analysis with the primary objective of identifying components in the current balance of payments framework that are of particular relevance for developing indicators on GVCs; and examining—building on initial experiences and ideas of country practices—how to better identify the role of multinational enterprises (MNEs) in current account transactions. This report includes the summary of a stocktaking survey conducted by the OECD and the IMF; recommends items to be included in an annual GVC reporting exercise; and proposes a framework to provide supplementary data that highlight the role of MNEs in the current account, covering both trade in goods and services and direct investment (DI) income. In its first year of work, the WG had identified trade in goods and services components recommended in BPM6 *that would be useful in improving indicators used in the analysis of GVCs. These components are also incorporated to this report in Box 1.[2] With this report, the WG concludes its work. Questions to the Committee are included at the end of the Executive Summary.*

Policy demand for more statistical information on GVCs, including on the role of MNEs in these processes, has grown significantly in recent years. The sixth edition of the IMF's *Balance of Payments and International Investment Position Manual* (*BPM6*) provides a very useful framework for additional information that would be helpful in bridging detailed trade statistics and accounting frameworks to improve the quality of inter country input-output (ICIO) tables that are the basis for GVC analysis.

While the balance of payments statistics identified are part of the current accounting framework and often explicitly referenced in *BPM6*, they typically involve auxiliary tables or supplementary items or more detailed (geographic or product) breakdowns than those identified as standard components of the *BPM6*. However, the availability of level of granularity required at the data source level, data quality, compilation cost, confidentiality, and reporters' burden are the main impediments and concerns to data collection.

The WG during Phase I identified a list of balance of payments components, building on the *BPM6* framework that would be useful in improving indicators used in the analysis of GVCs. The list is presented in Box 1.

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[1] The WG's membership is presented in Annex I.

[2] Compiling the proposed *BPM6* components would improve the quality of inter-country input-output tables (ICIOs) that are the basis for GVC analysis and the estimation of Trade in Value Added (TiVA) indicators; and would help both the international and regional efforts underway to improve the data available on GVCs. The preliminary report of the WG on balance of payments statistics relevant for GVC including the previous recommendations of the WG is available at https://www.imf.org/external/pubs/ft/bop/2018/31.htm

This report describes the results of the stocktaking survey of current data availability and potential feasibility to develop the specific items identified by the WG in the preliminary report as relevant for GVC analysis. It then discusses the items that the WG recommends be included in an annual GVC reporting exercise. The last section of the report discusses the WG recommendations for identifying MNEs in the current account, which covers both trade in goods and services and DI income.

Key Findings

The GVC stocktaking survey was conducted during January and February 2019 and targeted 36 OECD and 65 non-OECD economies. Responses were received from 76 economies, with a 75 percent response rate. The key survey findings are as follows:

- At an aggregate level, quite some data are available and to some extent published.

- At a more granular level (yet critical for analysis), data are less available for goods under merchanting, International Merchandise Trade Statistics (IMTS)/balance of payments reconciliation components, and breakdown of travel by goods and main services components.

- Research projects or plans to compile more detail are ongoing in some countries, but not likely to yield results in the next two years.

Based on the stock taking survey results, the following items are recommended to be considered within a potential reporting template to be developed by the IMF and the OECD:

- Total value of re-exports

- Main product and/ or partner breakdown of re-export.

- Total value of goods acquired/sold under merchanting.

- Main products and/or major trading partners of goods acquired/sold under merchanting (encouraged item)

- Reconciliation table along the lines of *BPM6* table 10.2.

- Product and partner breakdown of total trade in goods on a balance of payments basis

- Geographical breakdown of Extended Balance of Payments Services (EBOPS) categories

Concerning MNEs, their transactions are of interest in their own right because they are key actors in globalization by managing many GVCs and by enabling the exchange of goods and services, knowledge and technology, and capital across borders.

In the light of the growing demand from users on the MNEs data, the WG proposes a framework to provide supplementary data that highlight the role of MNEs in the current account using new trade statistics being developed in many countries as well as proposing extensions to DI income. Specifically, it develops a framework for incorporating Trade by Enterprise Characteristics (TEC) data in the trade in goods and services account by introducing further disaggregation of total exports and imports of goods and services by the ownership of the trading firm (by domestic companies that have affiliates abroad and by foreign-owned enterprises) and a further breakdown of DI income that distinguishes income receipts and payments based on the residency of the ultimate owner of the MNE, which could significantly improve the interpretive and analytical power of TiVA databases to better understand how countries benefit from their integration.

The following summarizes the proposed framework to provide supplementary data that highlight the role of MNEs in the current account (the proposed framework is presented in Table 2).

Item	Source data
Total Exports and imports of goods and services (balance of payments basis)	Balance of payments
By domestic MNEs	TEC for goods and Services
By foreign-controlled enterprises	
Other—domestic enterprises	
DI income (receipts and payments)	Balance of payments
By resident Ultimate beneficial owners (UBOs)	Balance of payments /DI
By foreign UBOs	Balance of payments /DI

Final Recommendations

The WG concluded its work and made the following recommendations:

- Economies are encouraged to compile and disseminate the proposed balance of payments items relevant for GVC analysis and identified by the WG based on the stocktaking survey results. To this end, the IMF and the OECD will consider the feasibility of developing a reporting template for GVC data collection.

- In addition to the standard balance of payments reporting form as identified in *BPM6*, economies are encouraged to provide supplementary data that highlight the role of MNEs in the current account, based on the framework proposed by the WG.

- Economies are encouraged to continue to develop statistics on the items that were not included in the GVC reporting proposal but that would be useful for improving indicators for GVC analysis.

- Through technical assistance and training, international organisations should support economies in making these data available without significantly raising their costs or their and respondents' reporting burden.

- Coordination between international accounts and national accounts (NA) compilers is encouraged with a view to moving towards a more integrated approach in compiling and disseminating GVC indicators.

Questions to the Committee

1. *What are the Committee's views on the proposed items for GVC reporting template?*

2. *Does the Committee agree that the IMF and OECD should develop a reporting template for GVC data collection?*

3. *What are the Committee's views on the proposed framework of the current account to identify the MNEs activities?*

4. *Does the Committee have any views on other current account components that would be useful for highlighting the MNEs activities?*

Final Report of the OECD-IMF BOCOM Working Group on Balance of Payments Statistics Relevant for Global Value Chain Analysis[3]

I. INTRODUCTION

1.   Policy demand for more statistical information on global value chains (GVCs), including on the role of multinational enterprises (MNEs) in these processes, has grown significantly in recent years. A key characteristic of GVCs relates to international fragmentation of production. This fragmentation of production has created challenges in interpreting current trade related statistics. In a world of GVCs, the benefits of exports to an exporting economy are significantly less than implied by gross trade data if those exports require significant foreign content, as would be the case for example for a low-labor cost country engaged in assembling goods for developing economies. The nature of fragmentation, in turn, can also create a distorted view of who really trades with whom, which means that the current (often politically sensitive) measures of bilateral trade balances based on gross trade data may be hampering optimal policy making.

2.   Understanding the true nature of GVCs and MNEs has perhaps never been more important, and not just because of their predominance in international trade (with trade in intermediates, and trade by MNEs making up the lion's share of overall trade), the recent backlash to globalization seen in many economies has heightened the need for sound evidence for sound policy making that may better substantiate whether the benefits of global trade work for all and not just the few.

3.   As balance of payments statisticians are well-placed to contribute to meeting these demands, the IMF Balance of Payments Statistics Committee (Committee) agreed at its meeting of October 2017 to create a Working Group (WG) led by OECD in coordination with the IMF. The work of the Group is expected to take two years with the work split into two phases, as agreed below.

- Phase I—identify components and statistics in *BPM6*; that are of relevance for the development of indicators on GVCs (to be delivered at the 2018 Committee meeting); and

- Phase II—examine, building on initial experiences and ideas of country members, how to better identify the role of MNEs in current account transactions (to be delivered at the 2019 Committee meeting).

4.   At the 2018 meeting, the WG delivered a preliminary report summarizing the work done in the first year. The WG determined that the sixth edition of the IMF's *Balance of Payments and International Investment Position Manual* (*BPM6*) provides a very useful framework for additional information that would be helpful in providing bridges between the

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[3] The WG's membership is presented in Annex I.

detailed trade statistics and accounting frameworks that would improve the quality of inter-country input-output tables (ICIOs) that are the basis for much GVC analysis. In particular, ICIOs are used to produce trade in value added (TiVA) estimates. While the balance of payments statistics identified are part of the current balance of payments accounting framework and often explicitly referenced in *BPM6*, they typically involve auxiliary tables or supplementary items or more detailed (geographic or product) breakdowns than those recommended in the standard reporting form of the *BPM6*. Since they are typically not included in the standard components in *BPM6*, their relevance to GVC analysis may not be immediately clear to all compilers.

5.   The preliminary report identified three main challenges in the use of trade statistics in the construction of ICIOs. First, when compiling balance of payments items on trade in goods and services several adjustments are made to align international merchandise trade data, which capture the physical movement of goods, with the balance of payments concept of change of ownership. Additional detail on which products and which trading partners are most affected by these adjustments would be very useful. The second challenge is the lack of geographical detail on imports and exports of services for many economies. The final challenge is the differences in services classifications used in the balance of payments and the national accounts. These differences are particularly relevant for the transactor-based extended balance of payments services (EBOPS) items: Travel, construction, and government goods and services. While these types of transactions are not among those immediately identified with GVCs, a separate identification of the share of goods in the total transaction value as well as a breakdown of the types of goods concerned are important for generating more accurate TiVA statistics.

6.   The WG during phase I identified a list of balance of payments components, building on the *BPM6* Framework that would be useful in improving indicators used in the analysis of GVCs. This information would improve the quality of ICIOs that are the basis for GVC analysis and the estimation of TiVA indicators; these data would help both the international and regional efforts underway to improve the data available on GVCs. See Box 1.

7.   The preliminary report recommended that the WG undertake the following activities in its second year:

- Develop a reporting template for the relevant items identified in the first year;

- Conduct a stocktaking survey of current availability and potential feasibility of compiling these items (by OECD and IMF);

- Identify the role of MNEs in the current account transactions, including through further enhancements of linkages between trade and business registers, to develop Trade by Enterprise Characteristics (TEC) for both goods and services; and

- Develop additional guidance that can help identify merchanters and factoryless goods producers, building on existing efforts in this area.

Box 1. Balance of Payments Components Identified by the WG During Phase I that Are Relevant for GVC Analysis

The WG has identified the following items:

1. All standard components as identified in *BPM6* for the goods account, with a breakdown of the main products involved. This includes in particular: Re-exports; Goods acquired under merchanting; and Goods sold under merchanting

2. A reconciliation table between international merchandise trade statistics (IMTS) and balance of payments trade in goods statistics, along the lines of *BPM6* Table 10.2, and to include, where possible, the main products and/or partner countries involved.

3. Balance of payments trade in goods statistics, including those identified by Central Product Classification (CPC) or Classification of Products by Activity (CPA), and partner country, consistent with the national accounts statistics used in constructing supply-use tables (SUT) (particularly in countries where transactions related to GVCs and global production arrangements are important).

4. Supplementary breakdown of the travel item as identified in the *BPM6* standard components.

5. Geographical breakdowns for trade in services statistics, starting with the 12 main EBOPS categories (and total services trade) and prioritising breakdowns for more detailed services category according to their relevance and importance in a country's international trade.

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8.   At its 2018 meeting, there was general agreement on the preliminary recommendations of the WG, namely on the memorandum and supplementary *BPM6*-based components that are useful for compiling GVC indicators. However, concerns were raised on the compilation challenges including the level of granularity required at the data source level, data quality, compilation cost, and reporters' burden. Since the information may not be available for all items, it was considered that each country should concentrate on those items which are important for them. In addition, one Committee member noted these granular data could be provided to international organizations as building blocks needed to produce statistics, without the granular data necessarily being published.

9.   The Committee endorsed the proposed Phase II work program of the WG; and agreed on the need for developing reporting templates and for conducting a stocktaking survey of current data availability and potential feasibility. Committee members suggested that the

stocktaking be conducted more widely to also target national statistical institutes to cover both national accounts and balance of payments compilers.

10.   This report next describes the stocktaking survey conducted by the IMF and OECD, summarizing the key results. It then discusses the items that the WG recommends be included in an annual GVC reporting exercise. The last section of the document discusses the WG recommendations for identifying MNEs in the current account, which covers both trade in goods and services and direct investment (DI) income. It concludes with questions for the Committee. The WG did not have an opportunity to make progress on improved guidance on identifying merchanters and factoryless goods producers. The issue is being picked up in the OECD's Working Party on International Trade in Goods and Services.

II. GVC STOCKTAKING SURVEY: RESULTS AND PROPOSED ITEMS FOR COLLECTION

11.   The stocktaking survey was conducted by the OECD and the IMF during January and February 2019 and targeted 36 OECD and 65 non-OECD economies. For each item, the stocktaking asked economies to indicate whether the information was:[4]

- already available and published (yes);

- available but not published (yes, not);

- not available but it would be feasible to develop within a 2-year timeframe (no, feasible); and

- not available and not feasible (no, not).

12.   For trade in goods, it requested information separately for the total (e.g., total re-exports) and for the top 5 main products and/or trading partners involved. Box 2 below summarizes the items included in the stocktaking survey and the relevant section of the stocktaking questionnaire is reproduced in Annex II to this document.

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[4] Text in parenthesis indicates the descriptor used to denote the responses as presented in Figures 2–7.


Box 2. Summary of GVC section of the Stocktaking Survey

The stocktaking survey included a section asking economies about each of the specific items identified in the preliminary report as relevant for GVC analysis.[5] The specific recommendations were for compilers to provide full and complete information on the following standard components from *BPM6* Appendix 9.

1. All standard components identified for the goods account, with a breakdown of the main products involved. This includes in particular:

   - Re-exports (1.A.a.1.1.)
   - Goods acquired under merchanting (negative credits) (1.A.a.2.1)
   - Goods sold under merchanting (1.A.a.2.2)

2. A reconciliation table between IMTS and balance of payments trade in goods statistics, such as table 10.2 in *BPM6*, and to include, where possible, the main products and/or partner countries involved. This information is particularly needed for economies where manufacturing services, merchanting and other complex global production arrangements are important.

3. Balance of payments trade in goods statistics, including those identified by CPC or CPA, and partner country, consistent with the national accounts statistics used to construct SUT, particularly for economies where transactions related to GVCs and global production arrangements are important.

4. Supplementary breakdown of the travel item as identified in the *BPM6* standard components. This includes in particular the goods and services purchased:

   - Goods (1.A.b.4.0.1)
   - Local transport services (1.A.b.4.0.2)
   - Accommodation services (1.A.b.4.0.3)
   - Food-serving services (1.A.b.4.0.4)
   - Other services (1.A.b.4.0.5), of which
     - i. Health services (1.A.b.4.0.5.1)
     - ii. Education services (1.A.b.4.0.5.2)

5. Geographical breakdowns for trade in services statistics, starting with the main EBOPS categories (and total services trade) and prioritising breakdowns for more detailed services category according to their relevance and importance in a country's international trade. This includes a geographical breakdown of the balance of payments items identified above.

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13.   Responses on the GVC section were received from 76 economies, with a 75 percent response rate. Figure 1 shows the responses received by geographical region.

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[5] See the preliminary report for a description of how each of these items could be used in GVC analysis.

Figure 1. Survey Responses by Geographic Region
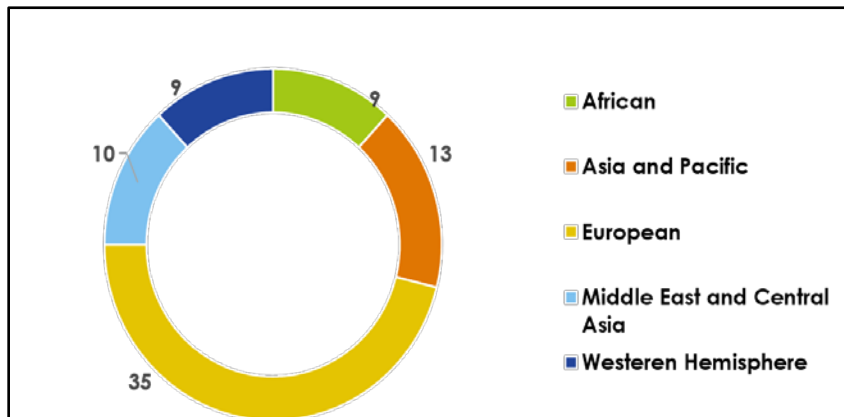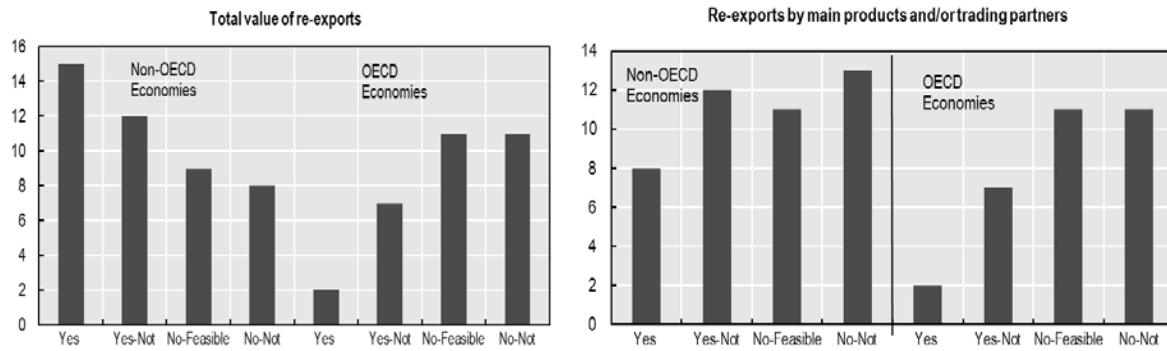

Source: OECD-IMF Stocktaking survey 2019

A. The Stocktaking Survey Results

14.   The results of the stocktaking survey are summarized for each question below. The figures distinguish between OECD and non-OECD economies. When discussing the percentage of economies indicating that the data are available, the percentage is equal to the sum of those reporting that they are available and published and those indicating that they are available but not published.

Re-exports

15.   Figure 2 presents the results of the questions on the availability of data on re-exports at the aggregate level and of information by major product/trading partner.

16.   While overall 48 percent of respondents reported that data on the total value of re-exports are available, the non-OECD economies reported a much higher positive response rate than the OECD economies. This is surprising given the perceived differences in statistical capacity between the two groups of economies and, so, may indicate that caution is needed in interpreting the results. A further 27 percent indicated that it was feasible to develop estimates of the total value of re-exports within two years while 25 percent said it was not feasible. A smaller percentage, 39 percent, indicated that the data by major product and/or trading partner were available. A further 29 percent indicated it was feasible within two years, and 32 percent indicating it was not feasible.

Figure 2. Responses to Questions on Re-exports

Source: OECD-IMF Stocktaking survey 2019

17.   Respondents indicated that in many cases the information was available from Customs records but was sometimes difficult to separate from other movements (e.g., transit trade). In a few cases, respondents indicated other sources, such as international transactions reporting system (ITRS) or enterprise surveys were used. Finally, some respondents indicated that re-exports were not significant in their economies.

Goods Acquired/Sold Under Merchanting

18.   Figure 3 shows the results from the survey for total merchanting and for the breakdown by major product and/or trading partner.

Figure 3. Responses to Questions on Merchanting
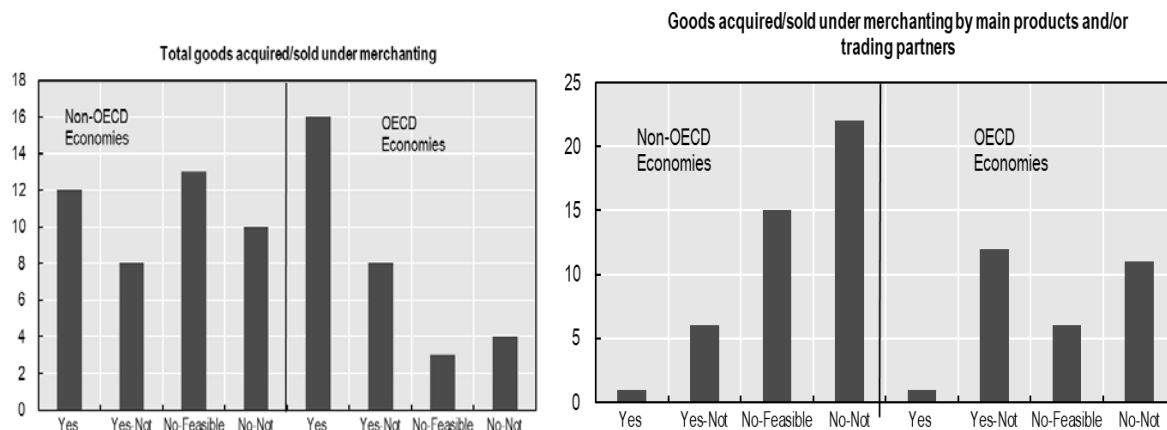
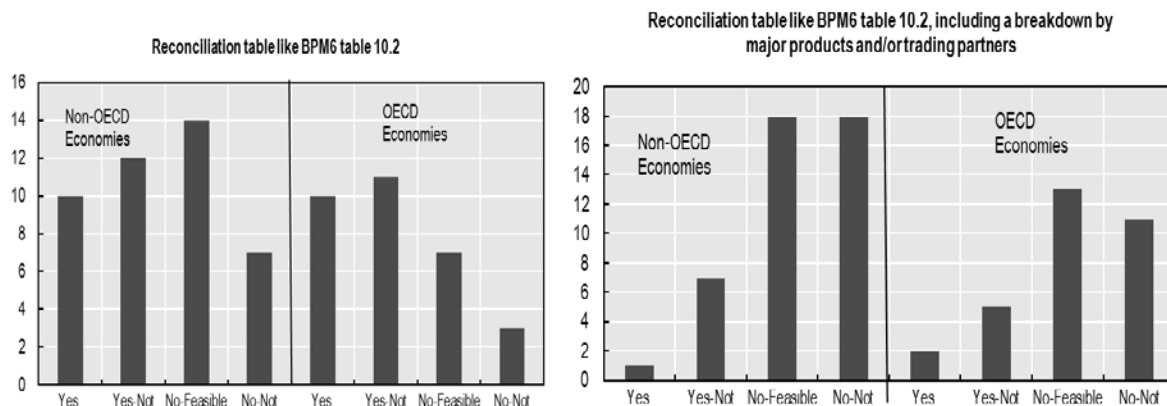Source: OECD-IMF Stocktaking survey 2019

19.   Overall, 59 percent of respondents indicated that data on total goods acquired/sold under merchanting were available, but a much smaller percentage, 27 percent, indicated that the data by major product and/or trading partner were available. However, many respondents indicated that the data by trading partner were available, but the data by product were not

available and would involve a significant increase in burden to compile. Nevertheless, a few economies release a breakdown by product but not by partner due to a lack of consensus about how to split the net exports of merchanting between partners. For most economies, direct surveys of enterprises involved in merchanting are the data source; as a result, confidentiality restrictions would prohibit some economies from publishing detailed data. Economies relying on an ITRS do not have information on products and trading partners.

Reconciliation Table Between International Merchandise Trade Statistics and Balance of Payments Trade in Good Statistics

20.   Figure 4 shows the responses to the questions on the availability of a reconciliation table between IMTS and trade in goods statistics on the balance of payments basis.

**Figure 4. Responses to Questions on the Reconciliation Table**

Source: OECD-IMF Stocktaking survey 2019

21.   Overall, 58 percent of respondents indicated that a reconciliation table along the lines of Table 10.2 in *BPM6* is available, but a much smaller percentage, 20 percent, indicated that a breakdown by major product and/or trading partner was available. This is because detail by product or trading partner are often not available from current data sources or because confidentiality prohibits publishing the information. Respondents that indicated that they could not provide a time frame for feasibility cited resource constraints and competing priorities as reasons.

Total Goods on a Balance of Payments Basis by Product and/or Trading Partner

22.   Figure 5 shows the results of the question on the availability of balance of payments trade in goods statistics with a meaningful (e.g., non-proportional) breakdown by main products and/or trading partner.

Figure 5. Responses to the Question on Trade in Goods on a Balance of Payments Basis by Product and/or Trading Partner

BoP trade in goods **statistics** with a breakdown by main products and/or trading partner
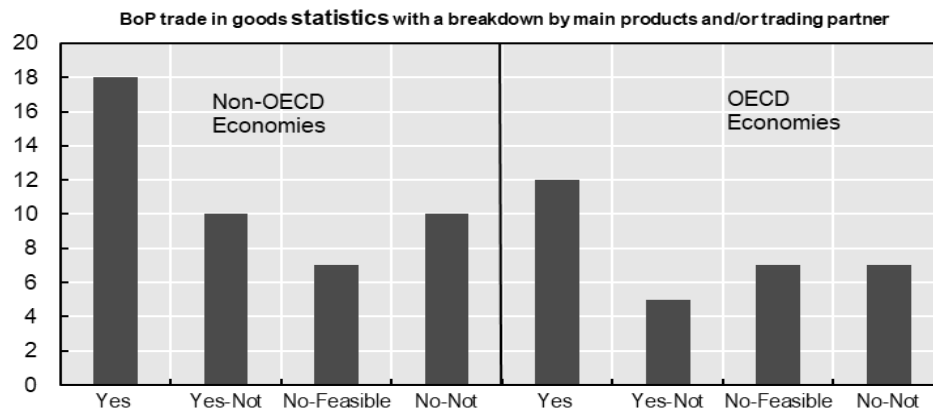
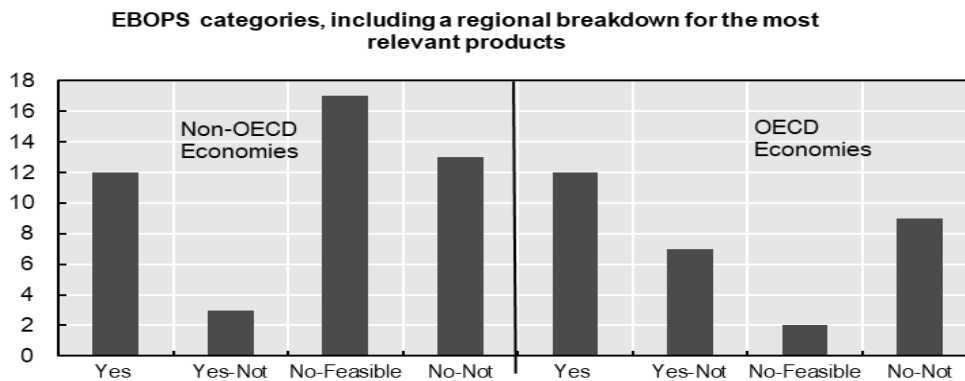Source: OECD-IMF Stocktaking survey 2019

23.   Overall, 59 percent of respondents indicated that detail on main products and/or trading partners was available for trade in goods on a balance of payments-basis. However, some economies that indicated that the data are available and published may have misinterpreted the question and were referring to the availability of international merchandise trade statistics by main product and by trading partner rather than trade on a balance of payments basis because the latter could not be found on their websites. Indeed, most often, respondents indicated that merchandise trade data at various levels of product aggregation are available but not some of the adjustments to the balance of payments data. Detail by trading partner was available more frequently than availability by product.

Trade in Services by the 12 EBOPS Categories, Including a Regional Breakdown for the Most Relevant Categories

24.   Figure 6 presents the survey results for the question on the availability of data on trade in services by EBOPS category, including a regional breakdown on the most relevant categories.

25.   Overall, 45 percent of respondents indicated that trade in services data are available for some or most of the EBOPS category with regional breakdowns; a further 25 percent indicated that it was feasible within two years, including many non-OECD economies.

Figure 6. Responses to the Question on the Availability of Trade in Services Data by EBOPS

EBOPS categories, including a regional breakdown for the most relevant products

Source: OECD-IMF Stocktaking survey 2019

Supplementary Breakdown of the Services Travel Item

26.   Figure 7 presents the results of the question on whether data on the supplemental breakdown of the travel services item that identifies the goods and services, including local transport services, accommodation services, food-serving services, and other services, involved.

Figure 7. Responses to the Question on the Supplemental Breakdown of Travel Services

Services Travel item broken down according to the supplementary classification in BPM6, which identifies the goods and services
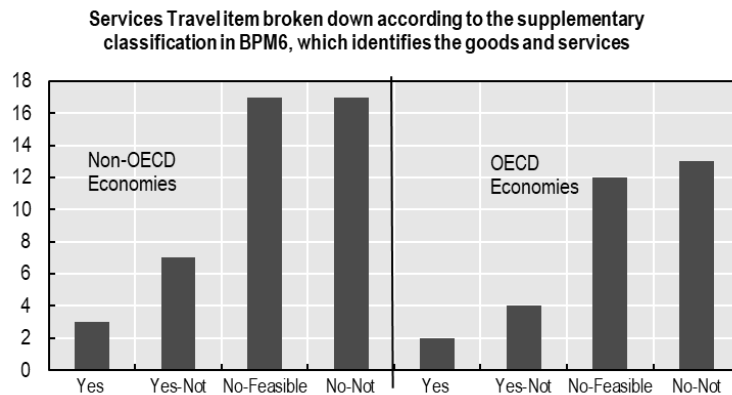
Source: OECD-IMF Stocktaking survey 2019

27.   Overall, only 21 percent of respondents indicated that this supplemental breakdown was available while 40 percent of respondents indicated that it was not feasible within a two-year time frame. While economies are exploring the use of various data sources, including payment card data, traveler/tourism surveys, business surveys, and tourism satellite accounts, they thought results from these efforts would not be available within the next two years.

B. The Proposed Items for Collection

28.   The WG GVC took account of the results of the stock-taking survey when developing the following proposal for items to be included in a data collection. First, it was decided that any item for which 50 percent or more of the respondents indicated that the data were either available and already published or available but not yet published should be included in the proposal. Items for which fewer than 50 percent of respondents indicated the data were available and those that are of particular value for GVC analysis or other policymaking could be included.

29.   With regard to the provision of detailed data by main product and/or major trading partner, the proposal aims to help economies prioritize which information would be most relevant for GVC analysis or other policymaking. In addition, economies are encouraged to provide detail by main product and/or by major trading partner first before trying to bring these data together. Detail on specific items, such as re-exports or merchanting, are encouraged for economies for which these items are significant. Economies should also be encouraged to report information to international organizations for their use without them publishing the information provided; this could help allay concerns about the quality of the estimates or confidentiality while still supporting the production and analysis of improved GVC indicators. Table 1 summarizes the proposals for the data collection.

30.   For re-exports, even though the availability of data for the total was just below 50 percent and was lower for the detail by main product and major trading partner, it is proposed that this item be collected given its significant value in improving GVC indicators. However, the detail requested should be limited to the top 5 trading partners and then top 5 products, taking into consideration the greater difficulty for collecting product detail.

31.   For merchanting, the results of the stocktaking survey justify requesting total "gross" amounts but not the collection of detail at this time. However, international organizations could continue to work with and encourage countries to improve the availability of this detailed information by, for example, suggesting they provide data from their national SUTs. This would then provide a basis to start looking into trading partners (top partners) and top products and, at minimum, provide international organizations with base estimates for merchanting.

32.   The reconciliation table between IMTS and trade in goods statistics on a balance of payments basis (*BPM6*, Table 10.2) is justified by the results of the stocktaking survey as well as being good statistical practice. However, the results of the survey do not support collecting detail at this time. Again, international organizations should continue to work with countries on improving the availability of the detailed information. Additionally, the recommendation could suggest countries only provide the table on a five-year basis as part of a 'benchmarking' exercise.

Table 1. Summary of Proposals for Data Collection

Item	Dimension	Included in the Reporting Template	Comment
Re-exports	Total value	Yes	Availability is close to 50%, and data are very useful for GVC indicators.
	Main products and/or major partners	Yes, but only top products and trading partners, such as top 5	While availability is lower (38%), very useful for GVC indicators, particularly for economies with significant re-exports.
Goods acquired/sold under merchanting	Total gross value	Yes	Availability above 50%.
	Main products or major trading partners	No, but	While the availability indicated in the stocktaking survey does not support collection, economies could be encouraged to provide the estimates used in national accounts.
Reconciliation table between IMTS and trade in goods on balance of payments basis	Total (Table 10.2 in *BPM6*)	Yes	Availability above 50%.
	Main products and/or major trading partners	No	The results of the stocktaking survey point to current difficulties in producing these data in most countries and so are not included in the final list.
Breakdown of total trade in goods on a balance of payments basis	Major trading partners and/or most important products	Yes	Availability above 50%. Priority should be given to trading partners as the survey results indicate this information is more available than product detail.
Geographical breakdown of trade in services	12 main EBOPS categories	Yes	Availability above 50%. Economies should focus first on their most important categories and trading partners.
Supplemental breakdown of the travel services item	Supplemental classification proposed in *BPM6*	No	The results of the stocktaking survey do not justify asking for this item at this time.

33.   For trade in goods on a balance of payments basis by partner country and by product, the proposal suggests collecting these data by partner country be given first priority. Alternatively, if countries can provide detail by trading partner or by product for the

reconciliation table discussed above (Table 10.2), this could be used by international organizations along with the detailed merchandise trade statistics to develop estimates on a balance of payments basis.

34.   For trade in services, the results of the stocktaking exercise fall just short of the 50 percent criterion, but the proposal recommends the collection of detail by the 12 main EBOPS categories and geographical detail because it is also valuable for analysis and policy-making beyond GVCs and given the number of countries that indicate it would be feasible within two years. Economies could start with their major trading partners and most important EBOPS categories. In contrast, the results of the survey do not support the collection of the supplementary breakdown of travel services item.

35.   Since the needs for improved GVC analysis will likely continue to grow, economies should be encouraged to continue to develop statistics on the items that were not included in the proposal but that would be useful for improving indicators for GVC analysis. International organizations should continue to work with economies to help them make these data available without significantly raising costs or reporting burdens.

III. MNEs in the Current Account

A. Background

36.   The transactions of MNEs are of interest in and of their own right because they are key actors in globalization by managing many GVCs and by enabling the exchange of goods and services, knowledge and technology, and capital across borders. In addition, integrated and separately identified within the TiVA framework, they can provide significant new insights and significant improvements in the quality of related indicators. First, an important limitation in the estimation of TiVA indicators, and indeed in any conventional input-output based analysis, is the implicit assumption that all firms within any particular input-output industry use the same production technology when, in fact, they generally do not. Firms differ in their production technology along different dimensions, including size, exporting status, but also whether they are part of a multinational. Separately identifying firms along these characteristics in particular whether they are part of an MNE, can significantly help to address some of this heterogeneity in the underlying input/output tables used to estimate TiVA and, thus, yield more precise estimates.

37.   International efforts toward disaggregating input/output tables in this way are occurring under the auspices of the OECD Export Group on Extended Supply Use Tables (ESUTs). The resulting estimates can be used to estimate TiVA and yield more precise estimates because the domestic content of exports, and the foreign content of imports, might differ along these firm characteristics (Ahmad and Ribarsky, 2014). Another important insight from ESUTs is understanding the upstream production linkages of MNEs, which show the indirect contributions of MNEs to domestic production in their host economies. The second issue in measuring trade in value added that identification of MNEs in the current

account could help to address is the treatment of income. Value added consists of the operating surplus (i.e., the compensation to capital) and the compensation to employees.[6] While compensation to employees is expected to largely remain in the host economy, the operating surplus (or profits) of DI enterprises could be considered to be less 'sticky' as it ultimately accrues to the foreign parent (but does not necessarily 'leave' the country as it may be reinvested in local operations). In addition, domestic MNEs will benefit from the profits they receive from their foreign affiliates. Accounting for foreign ownership and the related profits will produce better measures of how countries truly benefit from integration in GVCs.

38.   The inclusion of DI income in extended measures of TiVA statistics, also addresses a second important issue: the blurring distinction between trade in services and property income, which can distort the measurement of value added. This is most prominent within MNEs as payments for the use of intangible assets within the MNEs can appear in official statistics as either international trade in services or implicitly as primary income payments. In principle, the use of intangible assets of parents by affiliates, or affiliates in other countries, should be recorded as imports of services so that it is included in the affiliate's intermediate consumption and, thus, enabling the accurate measurement of both the affiliate's and related parties, including the parent's, value added. But if, instead, the services of these intangible assets are unvalued or undervalued, they are recorded implicitly under income payments, and, so, the affiliate's value added is overstated.[7] In conjunction, exports of the parent and related parties in other countries are also under recorded, as well as the domestic value-added content of their exports. Identifying DI income by the residence of the ultimate owner can address this issue by only capturing the value added that sticks in the economy, as described above, and by attributing the operating surplus to the country of the ultimate owner (Ahmad and Ribarsky, 2014).[8]

B.   Proposed Framework

39.   This section responds to the second phase of the work program by proposing a complementary framework to identify MNEs within the current account using new trade statistics being developed in many countries as well as proposing extensions to DI income that would be useful for GVC analysis. Specifically, it develops a framework for

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[6] It also includes taxes and subsidies on production.

[7] Indeed, potential distortions can arise in relation to base erosion and profit shifting and, in particular, the ability to relocate intellectual property products to those economies (affiliates) where it is fiscally advantageous to do so. Note that in many countries the default position for whether an asset is considered as being part of the stock of capital that generates value-added is often based on 'legal' rather than 'economic' ownership. The UNECE Handbook on the Guide to Global Production provides some guidance on how to make the distinction in practice, but it is by no means a panacea and there is a growing recognition that further guidance is needed. See, for example, http://www.oecd.org/officialdocuments/publicdisplaydocumentpdf/?cote=SDD/CSSP(2018)6&docLanguage=En

[8] It's important to note that this not a perfect solution, with respect to identifying the direction of implicit flows of unrecorded services as the implicit services may be provided between affiliates—in return for explicit primary income payments—and not the parent.

incorporating TEC data in the trade in goods and services account and a further breakdown of DI income that distinguishes income receipts and payments based on the residency of the ultimate owner of the MNE.

40.   The WG reviewed several frameworks for identifying the transactions of MNEs in the current account that were proposed in the 1990s (see Julius (1990) and National Research Council (1992)) as well as the "Ownership-Based Disaggregation of the U.S. Current Account" published annually by the U.S. Bureau of Economic Analysis. These approaches incorporate information on the local sales and purchases of MNEs into the current account in different ways to provide a complete picture of their sales and purchases of goods and services through both cross-border trade and commercial presence. These approaches draw on information available from the Activities of Multinational Enterprises Statistics or Foreign Affiliates Statistics (AMNE/FATS). However, it was decided that these frameworks posed definitional and conceptual issues in reconciling AMNE/FATS with the BOP accounts that could not be adequately addressed by the WG.

41.   The proposed framework provides for additional detail within both the trade in goods and services account and within the primary income account for DI income. Each of these are discussed in turn below.

Trade in Goods and Services by MNEs

42.   In response to demand for more information on the types of firms that are trading goods, some countries have linked their trade and business registers. As a result, a number of countries are beginning to publish trade in goods statistics based on a number of characteristics of the trading firm, including by sector, by enterprise size, and by ownership.[9] Such TEC statistics could be further extended to provide a breakdown of both exports and imports of goods by domestic companies that have affiliates abroad (i.e., domestic parent companies) and by foreign-owned enterprises (i.e., domestic affiliates of foreign MNEs).[10] The criterion used for identifying foreign-owned firms and domestic MNEs is control. In practice, some parent companies can, in turn, be foreign-owned; these cases are treated as foreign-owned enterprises, and domestic parent companies are limited only to those controlled by a domestic resident.[11]

43.   Some countries are also developing Services Trade by Enterprise Characteristics (STEC) data, and, so, a breakdown for imports and exports of services along the lines

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[9] Although some care continues to be needed with respect to interpretation as often the exports and imports pass through intermediaries, affiliated and unaffiliated, which may not be allocated to the same sector as the unit actually producing the goods being exported or using the goods that have been imported (which is the way these flows are recorded in national supply-use tables and TiVA and GVC analysis).

[10] Notwithstanding the fact that efforts should be made to define an MNE.

[11] BEA has begun producing some summary tabulations for U.S. headquartered MNEs. See https://www.bea.gov/worldwide-activities-us-multinational-enterprises-preliminary-2017-statistics

described above is also included in this proposal (see Table 2), with an eye to the future as STEC data become more readily available.

44.   Table 2 shows the proposed breakdown of exports of goods by MNEs in lines 4 to 6 and of imports of goods in lines 25 to 27 and exports of services in lines 8 to 10 and imports of services in lines 29 to 31. The table also shows the potential source data for these additional lines. As a result, in the proposed table, trade is distinguished by domestic MNEs, by foreign-controlled enterprises, and by domestic companies under domestic control and that have no foreign affiliates.

Direct Investment Income

45.   As discussed above, one goal of integrating income into the TiVA framework is to better understand how countries benefit from their integration in GVCs, including through the income that accrues to residents from such integration. This call for distinguishing DI income by the residency of the ultimate beneficial owner (UBO)[12] of the enterprise because they are the ones who ultimately receive the income. As soon as the discussion turns to the residency of the enterprises involved, it is moving to a directional presentation that provides information on the receipts of income by direct investors resident in that economy (outward investment) and on the income payments by DI enterprises resident in the reporting economy (inward investment). Therefore, the first step in this process is to convert the direct investment income receipts and payments recorded in the BOP on an asset/liability basis to a directional basis. For example, DI income receipts are adjusted downward by subtracting the interest payments of domestic parent companies to their foreign affiliates and the interest receipts of foreign-owned domestic businesses to their foreign parents. These adjustments are shown in lines 13 and 34 in Table 2.

46.   Outward DI income represents the domestic direct investors' claims on the earnings of their foreign affiliates, but some of these domestic direct investors may in turn be foreign-owned. The outward DI income of foreign-owned direct investors passes through the reporting economy and accrues to their UBO. So, the next step is to distinguish outward DI income based on the residency of the UBO of the direct investor. Such a breakdown would give an indication of the extent of pass-through income by distinguishing between receipts that remain in the reporting economy from those that pass to another economy.[13] It is important to identify the amount of pass-through income when integrating income into the TiVA framework because those income receipts do not remain in the home country and, if

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[12] It should be noted that many countries already have information on the residency of the ultimate controlling parent (UCP) of their direct investment enterprises to apply the extended directional principle to positions and flows of fellow enterprises. While the concept of UBO is preferable to a concept based on control because it addresses proportional ownership and, thus, provides better information on where the income ultimately accrues, a possible first step (but second best approach) towards implementation of the UBO concept could be to use the UCP information to distinguish between outward and inward direct investment income ultimately accruing to residents of the economy from that ultimately accruing to non-residents.

[13] For a precise definition of pass-through capital, a discussion of its motivations, and estimates of its extent in a selection of OECD countries, see Borga and Caliandro (forthcoming).

included, would overstate the real benefits it receives from integration in GVCs (Bohn, 2019). For DI income receipts, this would mean distinguishing outward DI income between resident UBOs and non-resident UBOs.

47.   For inward DI income, it would also be necessary to distinguish by residency of the UBO because some resident DI enterprises can ultimately be owned by a resident. This is income from round-tripping; round-tripping occurs when investment that has been channeled abroad is returned to the domestic economy in the form of DI (Borga, 2016). Inward DI income from round-tripping needs to be identified because they ultimately accrue to, and benefit residents of, the reporting economy.

48.   In Table 2, DI income is broken down by the residency of the UBO of the direct investors (outward) and of the DI enterprises (inward) in lines 15, 16, 36, and 37.

49.   This information on its own could significantly improve the interpretive and analytical power of TiVA databases but for full integration and hence even better insights, additional statistics by ultimate partner country (OECD, 2016) would be especially useful. The OECD took a first step in this direction by recommending that countries compile inward position statistics by the ultimate investing country (UIC) on a supplemental basis (OECD, 2008). Seventeen countries currently report inward positions by UIC to the OECD, but this number is likely to increase as more countries begin to compile statistics by UIC. Eurostat has further encouraged the development of statistics by ultimate partner as part of its recently completed pilot studies on extended measures of DI, which examined the feasibility of compiling DI position statistics by UIC and ultimate host country by its Member States. These initiatives are important to the analysis of GVCs but are outside of the scope of this work, which focuses on the aggregate current account.

Table 2. Proposed Framework of the Current Account to Highlight the Activities of MNEs

Line		Source data
1	Exports of goods and services	BOP
2	Exports of goods and services, total	BOP
3	Goods, BOP basis	BOP
4	By domestic MNEs	TEC
5	By foreign-controlled enterprises	TEC
6	Other—domestic enterprises	TEC
7	Services	BOP
8	By domestic MNEs	STEC
9	By foreign-controlled enterprises	STEC
10	Other—domestic enterprises	STEC
11	Primary income receipts	BOP
12	Direct investment income	BOP/DI
13	*Less: adjustment to convert direct investment receipts to a directional basis*	BOP/DI
14	Outward direct investment income	BOP/DI
15	By resident UBOs	BOP/DI
16	By foreign UBOs	BOP/DI
17	Portfolio investment income	BOP
18	Other investment income	BOP
19	Reserve asset income	BOP
20	Compensation of employees	BOP
21	Secondary income receipts	BOP
22	Imports of goods and services	BOP/DI
23	Imports of goods and services, total	BOP
24	Goods, BOP basis	BOP
25	By domestic MNEs	TEC
26	By foreign-controlled enterprises	TEC
27	Other—domestic enterprises	TEC
28	Services	BOP
29	By domestic MNEs	STEC
30	By foreign-controlled enterprises	STEC
31	Other—domestic enterprises	STEC
32	Primary income payments	BOP
33	Direct investment income	BOP/DI
34	*Less: adjustment to convert direct investment payments to a directional basis*	BOP/DI
35	Inward direct investment income	BOP/DI
36	By resident UBOs	BOP/DI
37	By foreign UBOs	BOP/DI
38	Portfolio investment income	BOP
39	Other investment income	BOP
40	Compensation of employees	BOP
41	Secondary income payments	BOP

ANNEX I. MEMBERSHIP OF THE WORKING GROUP ON BALANCE OF PAYMENTS STATISTICS RELEVANT FOR GLOBAL VALUE CHAIN

(As of September 2019)

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ANNEX II. STOCKTAKING SURVEY

This annex reproduces the section of the stocktaking survey that dealt with issues relevant to GVC analysis.

II. BOP INDICATORS RELEVANT FOR THE ANALYSIS OF GLOBAL VALUE CHAINS

At its 2017 meeting, the IMF Committee on Balance of Payments Statistics (BOPCOM) endorsed the creation of a Working Group, led by OECD and IMF, on Balance of Payments (BOP) Statistics Relevant for Global Value Chain (GVC) Analysis, with the primary objective of identifying components and statistics in the current balance of payments framework (BPM6) that are of particular relevance for the development of indicators on GVCs.

The motivation for this effort is that BOP statistics provide a very useful framework for additional information that would be very helpful in particular for bridging detailed (merchandise and services) trade statistics with accounting frameworks that underpin the analysis of GVCs, in particular to enhance the quality of the estimates. Such components already exist in the actual BOP framework. However, they typically involve auxiliary tables or supplementary items (BPM6 1.15(c)), or more detailed (geographical or product) breakdowns that are recommended in BPM6 but not included in the 'Standard Components', and therefore their relevance and importance may not be immediately clear to all compilers.

The OECD-IMF Working Group has developed this list of indicators, which was presented at the 2018 BOPCOM meeting (see https://www.imf.org/external/pubs/ft/bop/2018/pdf/18-04.pdf). It has also developed this part of the survey to take stock of the current data availability for these indicators and the potential feasibility to develop them going forward.

Encouraged Balance of Payments Statistics on Trade in Goods

For Trade in Goods, the Working Group identified three recommended sets of information, to allow for a better alignment by International Organizations of the detailed merchandise trade statistics with National Accounts total values (for further explanations, please refer to Section A (pages 16–18) of the related paper included at https://www.imf.org/external/pubs/ft/bop/2018/pdf/18-04.pdf).

First, transactions involving re-exports and the goods acquired/sold under merchanting, for their total values but, especially, further breakdowns by product or partner.

Second, the reconciliation table between merchandise trade statistics and balance of payments trade in goods statistics, along the lines of BPM6 *Table 10.2 would be very useful information to make publicly available, focusing in particular on the changes with the largest effects, and including, where possible, the main products and/or partner countries involved.*

Third, and as an alternative to the above, a breakdown of the total trade in goods account by (the most important) products (CPA/CPC 2 digit) and/or trading partners would also be helpful to improve the alignment of merchandise trade statistics to national accounts in the creation of international accounting frameworks.

9. **Re-exports**. Do you already have, or would it be feasible to develop within a 2-year timeframe, information on the **total value of re-exports** in your BOP statistics?

Select one.

○	Yes, it is already available and published
○	Yes, but it is not yet published
○	No, but it would be feasible to develop within a 2-year timeframe
○	No, and it is not feasible

10. Please elaborate on your response from the previous question.

11. **Re-exports**. Do you already have, or would it be feasible to develop within a 2-year timeframe, information on the **value of re-exports IDENTIFYING AT LEAST THE 5 MAIN PRODUCTS and/or TRADING PARTNERS INVOLVED** in your BOP statistics?

Select one.

- ○ Yes, it is already available and published
- ○ Yes, but it is not yet published
- ○ No, but it would be feasible to develop within a 2-year timeframe
- ○ No, and it is not feasible

12. Please elaborate on your response from the previous question.

13. **Goods acquired/sold under merchanting. If applicable (i.e., if your country hosts merchants involved in international transactions)**, do you already have, or would it be feasible to develop within a 2-year timeframe, information on the **total gross values of goods acquired/sold under merchanting** in your BOP statistics?

Select one.

- ○ Yes, it is already available and published
- ○ Yes, but it is not yet published
- ○ No, but it would be feasible to develop within a 2-year timeframe
- ○ No, and it is not feasible

14. Please elaborate on your response from the previous question.

15. **Goods acquired/sold under merchanting**. **If applicable**, do you already have, or would it be feasible to develop within a 2-year timeframe, information on the **value of Goods acquired/sold under merchanting, IDENTIFYING AT LEAST THE 5 MAIN PRODUCTS and/or TRADING PARTNERS INVOLVED** in your BOP statistics?

Select one.

- ○ Yes, it is already available and published
- ○ Yes, but it is not yet published
- ○ No, but it would be feasible to develop within a 2-year timeframe
- ○ No, and it is not feasible

16. Please elaborate on your response from the previous question.

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17. **Reconciliation table along the lines of *BPM6* Table 10.2.** Do you already have, or would it be feasible to develop within a 2-year timeframe, a reconciliation table along the lines of *BPM6* Table 10.2 (containing adjustments from merchandise trade to BOP concept of Goods), in particular involving information on (a) the goods involved in processing transactions and (b) the CIF-FOB adjustment?

Select one.

- ○ Yes, it is already available and published
- ○ Yes, but it is not yet published
- ○ No, but it would be feasible to develop within a 2-year timeframe
- ○ No, and it is not feasible

18. Please elaborate on your response from the previous question.

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19. **Reconciliation table along the lines of *BPM6* Table 10.2.** Do you already have, or would it be feasible to develop within a 2-year timeframe, a reconciliation table along the lines of *BPM6* Table 10.2, **including a breakdown by the most important products and/or trading partners involved for the largest adjustments**, particularly involving (a) transactions of goods involved in manufacturing services transactions and on (b) the CIF-FOB adjustment?

Select one.

○	Yes, it is already available and published
○	Yes, but it is not yet published
○	No, but it would be feasible to develop within a 2-year timeframe
○	No, and it is not feasible

20. Please elaborate on your response from the previous question.

21. **Total Trade in Goods (debit and credit)**. Do you already have, or would it be feasible to develop within a 2-year timeframe, Balance of Payments Trade in Goods statistics **with a meaningful (i.e., non-proportional) breakdown by main products and/or trading partner**?

Select one.

○	Yes, it is already available and published
○	Yes, but it is not yet published
○	No, but it would be feasible to develop within a 2-year timeframe
○	No, and it is not feasible

22. Please elaborate on your response from the previous question.

Encouraged Balance of Payments Statistics on Trade in Services

For Trade in Services, the Working Group identified two recommended sets of information, to allow for a better alignment by International Organizations of the detailed merchandise trade statistics with National Accounts total values (for further explanations, please refer to Section B (pages 19–21) of the related paper included at https://www.imf.org/external/pubs/ft/bop/2018/pdf/18-04.pdf).

The first involves a geographical breakdown of trade in services statistics, starting with the 12 main EBOPS categories (and total services trade) and prioritizing breakdowns for more detailed services category as per their relevance and importance in a country's international trade.

The second involves the supplementary breakdown of those services items that also include goods (notably travel), in order to allow for an improved alignment (and rerouting) of the trade flows involved to match National Accounts classifications. This survey covers travel only, as a starting point.

23. **Geographical breakdown of EBOPS categories**: Do you already have, or would it be feasible to develop within a 2-year timeframe, **the values of trade in services by the 12 EBOPS categories (as applicable), including a regional breakdown for the most relevant products**?

Select one.

○	Yes, it is already available and published
○	Yes, but it is not yet published
○	No, but it would be feasible to develop within a 2-year timeframe
○	No, and it is not feasible

24. Please elaborate on your response from the previous question.

25. **Supplementary breakdown of the Travel item**. Do you already have, or would it be feasible to develop within a 2-year timeframe, Balance of Payments Travel item broken down according to the supplementary classification proposed in *BPM6*, which identifies the goods and services (local transport services, accommodation, etc.) purchased/sold?

Select one.

○	Yes, it is already available and published
○	Yes, but it is not yet published
○	No, but it would be feasible to develop within a 2-year timeframe
○	No, and it is not feasible

26. Please elaborate on your response from the previous question.

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