

OECD EXPERT GROUP ON EXTENDED SUPPLY-USE TABLES

TERMS OF REFERENCE

1. Overview

1. The increasing international fragmentation of production that has occurred in recent decades driven by technological progress, cost, access to resources and markets, trade policy reforms, and indeed emerging economies, has challenged our conventional wisdom on how we look at and interpret trade. Traditional measures of trade, record gross flows of goods and services each and every time they cross borders leading to what many describe as a ‘multiple’ counting of trade, which may lead to misguided policy measures in a wide range of policy areas.

2. To respond to this challenge on 15 March 2012 the OECD and WTO undertook to collaborate on the development of estimates of trade in value-added (TiVA), **via the construction of a global input-output table**, resulting in a first release of a preliminary database on 16 January 2013 and a subsequent update in May 2013.

3. From the very beginning one of the key objectives of the TiVA initiative has been to raise awareness of the importance of new statistics that are better able to reflect the increasingly global nature of production, driven by Global Value Chains (GVCs). But a second, and equally important, objective has been to mainstream the production of TiVA indicators, **and the underlying Input-Output tables**, from which they are derived, into the global statistical information system and, in turn, to reinforce the significance attached to improving national capacities to develop core national inputs.

4. Significant progress has been made on these fronts since the launch of the database. TiVA has entered the mainstream of the policy debate on GVCS and international and national organisations are investing resources through collaborative networks to create the underlying statistical infrastructure, in particular via the creation of improved national and international supply-use and input-output tables.

5. But further improvements can be made (and are being made) in a number of areas and exploring the feasibility of implementing these improvements is the key objective of the Expert Group on Extended Supply-Use Tables, who will be expected to deliver a series of recommendations at the end of its mandate.

2. Background

6. The use of Input Output tables to provide evidence on Global Value Chains (GVCs), and Globalisation more generally, is now widespread. But globalisation is rapidly changing long-standing assumptions about the relative homogeneity of the production functions (Input-Output technical coefficients) of units classified to a given industrial activity, which is, implicitly, an underlying assumption

used in creating Input-Output based indicators. Such assumptions have, of course, always been challenging when considering small and large firms, where economies of scale have always been understood to play a role. But the increasing prevalence of new types of firms such as Factoryless Producers and Processers, and the increasing tendency for horizontal, as opposed to vertical, specialisation, particularly for multinational affiliates, has fundamentally challenged these assumptions.

7. The ability of national (and international) Supply-Use and Input-Output tables, based on industrial groupings alone, to describe how demand and supply relationships are related has therefore become more difficult and, because the evidence suggests that firms more greatly integrated into GVCs have higher import content and, often, higher productivity, the use of conventional input-output tables can over-estimate the domestic value-added (and jobs) content of exports – key indicators used in determining benefits from integration into GVCs.

8. Typically, in confronting the problem of heterogeneity, the conventional approach has been to provide more detail by aggregating firms at lower levels of the industrial classification system, for example 3 or 4 digit groupings as opposed to two digit groupings. But this approach may not be optimal, neither in terms of reducing heterogeneity within aggregations (and in a way that best responds to the policy drivers) nor necessarily optimal in terms of processing burdens.

9. The key challenge for the Expert Group therefore is to investigate whether different aggregations of firms may produce better results that:

- Minimise heterogeneity within given confidentiality constraints;
- Do not impose significant processing and compilation burdens on statistics institutes;
- Do not require new data collections, or, at the very least, minimise any impact of new data collections on respondents (by taking a holistic view of statistical information gathering).

10. These are not the only constraints or factors that need to be considered however. It is important to take care not to throw the baby out with the bathwater. By this, it is recognised that some features of the conventional ‘industrial classification’ approach must necessarily be retained. It would serve little purpose for example to devise an optimal system that did not retain some means of classifying firms on the basis of their activity, (e.g. manufacturing versus services) if only because these remain the key prisms that users look through when analysing production.

11. But, as shown below, heterogeneity is not the only issue that can be tackled through an extension to conventional supply-use tables. Two particularly relevant policy drivers are key in this regard. The first concerns the role of foreign affiliates (providing scope to address spill-over effects from foreign direct investment, and also extensions that move us from a value-added to an income view of the world). The second concerns the growing demand to provide more evidence on the role and integration of SMEs within GVCs, notably via indirect channels, and in particular via links through foreign owned resident firms).

12. It’s important to keep these policy drivers in mind as their relative importance will help to shape any ultimate recommendation. For example if the ultimate objective is to provide an accounting framework that best reflects the role of SMEs, it is clear that a breakdown by size class will be essential. If on the other hand the ultimate goal is to provide an accounting framework that responds to the investment agenda, then a breakdown by ownership will be essential. Both approaches will of course, by default, lead to improvements in the quality of TiVA estimates, since more detailed breakdowns will always result in better quality estimates, but it should be clear that the respective breakdowns may not necessarily be optimal, given constraints on resources and from confidentiality, with respect to capturing heterogeneity per se.

13. As such, it is more appropriate to describe the key challenge of the Expert Group as follows: to investigate whether different aggregations of firms may produce **better results** that:

- **Minimise heterogeneity within given confidentiality constraints and *in line with policy needs***;

14. Equally, as noted above, a pre-requisite of the Task Force is that the recommendations should not envisage additional data collections beyond those standard collections already managed by National Statistics Institutions and Central Banks.

3. Overview of available data sets to capture heterogeneity

15. A key goal of the Expert Group should be to explore how existing datasets could be incorporated into the standard procedures (statistical information systems) used to create national Supply-Use tables. Three standard datasets collected by many statistics institutes come to mind:

- Structural Business Statistics broken down by Size Class
- Trade by Enterprise Characteristics (TEC)
- Activities of Multi-National Enterprises / Foreign Affiliate Trade Statistics (FATS)

Structural Business Statistics by size class

16. SBS data (which typically provide information on value-added, employment and production amongst other variables, by detailed industry and standardised size class) already serve as a key input into the creation of national Supply-Use tables. One possible way of exploring issues pertaining to heterogeneity is by breaking down current industry classifications of national supply-use tables into breakdowns that also include a size-class dimension. This recognises the evidence that, typically, the larger the firm the higher the productivity, and also, typically, the larger their direct engagement in global value chains (both in terms of the share of output that is exported and the share of intermediate consumption that is imported, directly and via wholesale intermediaries). It also provides a mechanism to create a new suite of policy relevant indicators/statistics that respond to growing questions concerning the integration of SMEs within GVCs, and, so, a mechanism to identify where (within industries and countries) impediments to integration may exist.

17. There are two distinct, but not insurmountable, challenges inherent in producing breakdowns by size-classes in SU tables:

- **Limited information on sales between size classes:** Although it should be relatively easy to create information for the columns of Use tables broken down by size class, very few countries have access to detailed administrative data that are able to reflect who-to-whom transactions broken down by size class, meaning that transactions in the rows of the Use matrix will necessarily have to be derived via assumptions, anecdotal information, or other non-conventional administrative sources. In some countries however detailed information, collected for tax purposes, does reveal inter-company transactions, which provides a possible source.
- **Limited information on trade by size class:** Crucially, and central to the development of national Supply-Use tables that can (a) be integrated into a global Supply-Use table and (b) provide meaningful information on the true extent of globalisation (and GVCs in particular), SBS data need to also reflect the share of output that is exported and the share of intermediate consumption that is imported by size class. Typically this information does not form part of the standard SBS data collection. However, as shown below, via links to Customs Registers it should be possible to (at least partially) develop estimates (using for example TEC data).

Trade by Enterprise Characteristics (TEC)

18. Data derived through the linking of trade and statistical business registers are increasingly being developed by countries. The following data are typically available by size class and industry:

- Number of Exporting and of Importing Firms, Export values of Exporting firms, Direct Imports by product, Direct Imports by Exporting Firms.
- More recently, a number of countries within the OECD-Eurostat TEC data collection exercise have also begun to collect information breaking flows down by ownership (foreign/domestic) too.

19. Such data provide the building blocks for creating new aggregations of firms within supply-use tables broken down into:

- Firms that have no direct imports and no exports,
- Firms that have no direct imports and export,
- Firms that have direct imports and export,
- Firms that have direct imports and do not export.

20. Regarding heterogeneity of production functions with respect to measuring facets of globalisation, it is clear that such groupings could significantly improve the quality of estimates as they broadly define firm aggregates on the basis of one of the key target indicators of globalisation: *import content of exports*.

21. Linking this information to supply-use tables however also requires links to SBS data in order to have estimates of value-added, production, and intermediate consumption (by product) of the 4 groups of firms listed above.

22. Integrating TEC data with SBS provides a sound basis for the construction of columns within SU tables but a larger challenge concerns the construction of the rows in the Use table. Without very detailed administrative data that shows who-to-whom transactions the only possible way that these rows can be constructed (showing for example intermediate purchases by firms that do not export from firms that do) will be to use assumptions. In cases where exporting firms export most of their output however the impact of these assumptions will be reduced.

23. The biggest challenge however is that TEC provides information only on direct imports and direct exports (as opposed to exports (imports) sold (purchased) via resident intermediaries), while what is needed is the value of exports, and imports used in production.

24. The main issue in this context will be to identify exports (imports) sold (purchased) through intermediaries (wholesalers). This forms one of the key challenges for TEC data. For firms that export through affiliated wholesalers (exporters) it should, in theory, be possible, through profiling, to link the exports back to the producing firm. Where the exports are channelled through unaffiliated intermediaries the challenges are greater, although it may be possible to create estimates using assumptions based on more detailed information on the ISIC classification of industries linked to HS export categories, although this may prove particularly burdensome. For imports, again profiling offers one possible solution for transactions between affiliated firms but for transactions that pass through unaffiliated intermediaries the challenges are clearly larger, and it seems likely that only assumptions (based on more detailed underlying

data) will provide a solvable route. Note however that this issue of imports provided by intermediate domestic distributors is also a challenge in constructing conventional supply-use tables and so in theory it should be possible to estimate the import flows by these new categories of firms. A second order challenge is the identification of imported inputs that are not used in the current year (and instead allocated to inventories) but this is also a challenge with conventional SUTs.

Activities of Multi-National Enterprises/Foreign Affiliate Trade Statistics

25. Foreign Affiliate Statistics also provide a rich source of data that can be used to improve the homogeneity of firm aggregations used in Supply-Use tables. For a given country, Inward FATS data typically collects the following variables by industry grouping and investing country:

- *Turnover, Production, Value-added, Number of firms, Compensation of employees, Number of employees, Total imports (direct), and Total exports (direct)*

26. That being said the availability of data by country varies significantly. Those countries that are typically able to provide many or most of the variables usually have relatively well integrated FATS and SBS data sets, indeed often the FATS data is drawn from SBS data collections.

27. Outward FATS also provide a rich source of information which may prove useful in the future as the work of the Extended Expert Group develops (for example it can be used to provide mirror estimates for other countries) but at this stage, especially given the relatively limited data collection in most countries, it is not envisaged for inclusion in the Task Force's work. However one important, and related, identification variable is worth exploring in this context, namely *domestically owned firms with foreign presence* (in other words domestically owned multinationals, referred to hereafter as *domestic MNE*), as work undertaken in a number of countries through data-linking exercises illustrates that this category of firms often has quite different production functions (and import and export intensities) to domestically owned firms with no foreign presence (referred to hereafter as *domestic other*).

4. Objective and Guiding Principles

Industry Classification

28. Drawing on the above, and available data sources, the challenge is to identify feasible aggregations of firms within supply-use tables that have a greater degree of homogeneity and better respond to the globalisation agenda. A secondary factor that needs to be kept in mind is the ability to create recommendations and standard aggregations that are broadly replicable across countries and lend themselves to being integrated at the global level within a Global Supply-Use table.

29. At present the OECD collects information from countries that target the industrial classification breakdown shown in Table 1 below (used in the TiVA database, although this will move to ISIC Rev 4 in the near future). This (or comparable ISIC Rev 4 or other equivalents) should be considered as the **minimum industry target breakdown** used for the investigation of the Task Force, although, clearly, higher dis-aggregations are welcome.

Table 1: Industry Breakdown for International Input-Output (and Supply-Use) – TiVA 2015

| IO Industries | ISIC Rev.3 | Industry |
|---------------|------------|----------------------------------------------------------|
| 1 | 01t05 | Agriculture, hunting, forestry and fishing |
| 2 | 10t14 | Mining and quarrying |
| 3 | 15t16 | Food products, beverages and tobacco |
| 4 | 17t19 | Textiles, textile products, leather and footwear |
| 5 | 20 | Wood and products of wood and cork |
| 6 | 21t22 | Pulp, paper, paper products, printing and publishing |
| 7 | 23 | Coke, refined petroleum products and nuclear fuel |
| 8 | 24 | Chemicals and chemical products |
| 9 | 25 | Rubber and plastics products |
| 10 | 26 | Other non-metallic mineral products |
| 11 | 27 | Basic metals |
| 12 | 28 | Fabricated metal products except machinery and equipment |
| 13 | 29 | Machinery and equipment n.e.c |
| 14 | 30,32,33 | Computer, electronic and optical products |
| 15 | 31 | Electrical machinery and apparatus n.e.c |
| 16 | 34 | Motor vehicles, trailers and semi-trailers |
| 17 | 35 | Other transport equipment |
| 18 | 36t37 | Manufacturing n.e.c; recycling |
| 19 | 40t41 | Electricity, gas and water supply |
| 20 | 45 | Construction |
| 21 | 50t52 | Wholesale and retail trade; repairs |
| 22 | 55 | Hotels and restaurants |
| 23 | 60t63 | Transport and storage |
| 24 | 64 | Post and telecommunications |
| 25 | 65t67 | Finance and insurance |
| 26 | 70 | Real estate activities |
| 27 | 71 | Renting of machinery and equipment |
| 28 | 72 | Computer and related activities |
| 29 | 73, 74 | Other Business Activities (incl. R&D) |
| 30 | 75 | Public admin. and defence; compulsory social security |
| 31 | 80 | Education |
| 32 | 85 | Health and social work |
| 33 | 90t93 | Other community, social and personal services |
| 34 | 95 | Private households with employed persons |

30. That being said, all countries will face challenges presented by confidentiality restrictions and, so, the higher the industrial breakdown provided, the lower the potential for additional publishable information on size-class, import/export intensity, and ownership. **Preference therefore should be given to producing an industrial breakdown that maximises the ability to provide the supplementary breakdowns desired and shown in more detail below.**

31. At the same time it is clear that some prioritisation of additional breakdowns is needed. Producing, for example, breakdowns of each industrial grouping (even at the relatively aggregated level used in the TiVA database) will inevitably create confidentiality problems if the breakdowns require full combinations of the possible breakdowns suggested above, for example ownership, broken down by export intensity, broken down by import intensity, broken down by size class, would require splits into 36 additional categories even if the information required was restricted to the following defining characteristics:

Table 2: ' Ideal' breakdown of columns and rows in SU tables

| Foreign Owned | | | | | | Domestically owned MNE | | | | | | Domestic Owned | | | | | | | | | | | | | | | | | | | | |
|------------------------------|-------------------------|---|-----------------------------|-------------------------|---|------------------------------|-------------------------|---|-----------------------------|-------------------------|---|------------------------------|-------------------------|---|-----------------------------|-------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| With high Export orientation | | | With low Export orientation | | | With high Export orientation | | | With low Export orientation | | | With high Export orientation | | | With low Export orientation | | | | | | | | | | | | | | | | | |
| 'Exporters' | | | 'Non-Exporters' | | | 'Exporters' | | | 'Non-Exporters' | | | 'Exporters' | | | 'Non-Exporters' | | | | | | | | | | | | | | | | | |
| Low import orientation | High import orientation | | Low import orientation | High import orientation | | Low import orientation | High import orientation | | Low import orientation | High import orientation | | Low import orientation | High import orientation | | Low import orientation | High import orientation | | | | | | | | | | | | | | | | |
| S | M | L | S | M | L | S | M | L | S | M | L | S | M | L | S | M | L | S | M | L | S | M | L | S | M | L | S | M | L | S | M | L |

32. **Producing this level of detail will clearly not be possible for most, perhaps all, countries** and indeed would not necessarily be optimal as many of the categories, particularly those concerning foreign owned firms, would have no entries if broken down at every level. Very few foreign owned firms for example are small with no exports or imports. Moreover **it is clear that some redundancies, depending on the country, may be exploitable.** For example, often, foreign owned enterprises have high export intensities and are typically large, so for some countries (and industries) it may be sufficient to merely have a split of an industrial activity into the three categories of ownership foreign, domestic MNE, and domestic other, for example.

Defining Exporters/Non-Exporters and Importers/Non-Importers

33. Some explanatory information is required concerning the allocation of firms into exporting and importing categories. An allocation of firms for example to firms that export and those that do not will not necessarily be optimal in terms of GVC analytical indicators. Many exporting firms for example may export relatively little of their output, and these firms may have very different production functions from those firms with high export intensities. As such the categories above have, by design, some degree of flexibility built in that allows countries to determine what should and should not be considered as 'high export orientation' and 'low export orientation'. Indeed it may be preferable to introduce thresholds, at the national level, that better optimise homogeneity. And, importantly, these thresholds need not be the same across countries. The same also holds for imports.

34. That being said, the simplest approach, certainly with respect to data availability (for example through linking trade and business registers or where information is directly available in structural business statistics), would be to define 'Exporters' as those firms with some export and 'Non-exporters' as those with no exports and 'Importers' as those firms with some direct imports and 'Non-importers' as those with no direct imports.

35. For the exporting category, in most countries the evidence suggests that such a distinction could produce good results as relatively small proportions of firms are directly engaged in exports. However, this may not be the case for all countries and all activities, and, so, introducing a threshold to remove small firms with low export intensities may be desirable. **But, for the purposes of the work of the Expert Group, such a threshold should be decided on a country by country basis,**

36. One other important challenge in this regard concerns the mechanisms used to identify whether firms export (import) or not. Data sources such as TEC and FATS provide estimates of exports (imports)

by firms that are direct – in other words the firm itself is responsible for the cross border transaction. But some exports and imports considered as ‘direct’ in a supply-use framework will not be recorded within this standard data collections. Firms may for example choose to export (import) via an independent or affiliated distributor. As such focusing only on the direct transactions observable in TEC and FATS data will lead to underestimates of the true export (import) intensities of the firms.

37. Allocating exports (imports), that pass through affiliated distributors, to the producing (using) firm is possible through profiling and therefore consolidating the exports (imports) of the affiliated distribution unit to those of the producing (using) affiliate. However identifying these transactions when they pass through unaffiliated distributors will be more problematic and will require the development of assumptions. **The EG will be expected to develop ' best-practice' in this area**

Basic Structure of the Supply-Use tables

38. All tables should follow the accounting standards recommended in the 2008 SNA or 1993 SNA.

39. Supply-Use tables should reflect all transactions, between producers and consumers, within the Intermediate and Final Use tables at **Basic Prices**. Taxes and Subsidies on products that form part of the purchaser's price of any transaction should be shown as a separate row within the Supply-Use table.

40. Transactions in the Supply (Make) table should also be recorded at Basic Prices.

41. 2008 SNA and 1993 SNA recommendations on supply-use tables recommend that the column of imports by product shown in the Supply table reflect C.I.F. prices at the product level and F.O.B prices for total imports, with the difference reflected as a separate C.I.F/F.O.B adjustment item (row) or allocated separately to services transactions.

42. International Supply-Use tables however require a different presentation as a balanced system requires that imports and exports are valued at the same price basis, in order to have symmetrical flows of imports and exports. As such import transactions (for goods) by product should be shown at F.O.B. equivalent prices, with the C.I.F components allocated to the appropriate service products. If the C.I.F/F.O.B. adjustment in the supply-use tables are shown as a separate row and not allocated to services, the adjustment should also be allocated to specific services products, ensuring that no negatives remain in the import column.

43. Note that the tables assume the basic price concept for all transactions. If countries prefer to provide tables using a purchasers’ price format this is also acceptable as long as a corresponding column to adjust for margins (with as detailed a split as possible on the industry providing the margin) is also provided in the Supply Table. In addition a supplementary table should be provided showing the value of margins, following the structure of the Use table shown below.

44. Some sectors in some countries, notably agriculture, may contain significant adjustments for the non-observed economy such as subsistence farming. The inability to separately identify such adjustments in Supply-Use tables may skew the results of Input-Output tables generated from them, particularly when analysing areas such as jobs content. Similar complications may also arise when considering other items, such as own-account production of software or R&D. As such countries are encouraged to include an ‘of which’ item that reflects the size of these adjustments. It is recognised in advance that these items will be difficult to estimate, not least because they are often treated as confidential items, and so their provision should only be considered as being desirable, if possible.

45. Strongly encouraged is the provision of separate estimates **for re-exports**. This should be interpreted in its broadest sense as any imports recorded in the import trade statistics (column of the supply table) that are subsequently exported (re-exports) without any further transformation.

46. In addition countries are asked to provide separate estimates of **non-residents expenditures in the domestic economy** and **resident expenditure abroad**, as these export and import transactions do not cross-borders and so it would be preferable to treat these items separately for the purposes of GVC analysis (as well as for tourism policy making).

Statistical Unit for firms

47. The SNA's preferred unit for compiling industrial statistics is the establishment. But at the same time in the SNA research agenda there is a recognition that this preference may need to be reviewed to take into account the increasing international fragmentation of production that has led to profound changes in classic production function relationships. Further, changes introduced in the 2008 SNA, notably concerning changes in ownership, have moved us closer to a financial perspective, which introduces increased heterogeneity in the production functions of firms allocated to a given industrial sector. This increases the challenges when creating robust indicators that capture global production.

48. Furthermore, many important characteristics that determine the level of firms' engagement in global value chains, such as do you import and/or export, are often not readily measurable at the establishment level, as such information does not appear to be a key variable in many SBS surveys. But, as noted above, via links at the enterprise level between business and trade registers, such information is potentially obtainable.

49. This is also true when thinking about breakdowns of industries into foreign and domestically categories, where information is, again, typically only available at the enterprise level.

50. It's important however that the EG keeps an open mind on this going forward. A change in the statistical unit is not a precondition for moving forward. Many countries, for example, do not compile their SU tables on the basis of the establishment and in those that do additional information may be available that allows the establishment to be retained whilst still capturing information on import and export intensities. What countries are able to do necessarily reflects the underlying statistical information systems and the Task Force should explore all solutions that may be country specific but still replicable - for example, in some countries, it may be preferable to focus on 'legal' units.

Rows vs Columns in an Extended SUT

51. Perhaps the most difficult challenge that will be faced by the Expert Group will be estimating transactions across the rows of the new category of firms. While the surveys that support conventional SUTs are far from perfect they provide a sound basis for the estimation of intermediate consumption by firms, as firms are generally able to provide information on the type of product they use in production **but they are typically less able to say (in most countries) from which type of firm they purchased their intermediate inputs**. Certainly it is fair to say that firms themselves would not be able to say if they purchased their inputs from an exporting or non-exporting firm for example. Estimating these transactions, or rather, developing robust, replicable, techniques for estimating these flows will form one of the key challenges of the Expert Group.

52. **Recognising these challenges**, and the difficulties that some countries may encounter, **the work of the EG will be to develop SU tables in two stages**.

- **The first stage will be to break down the columns** using one (or variant of) the firm category options shown in Section 6, with the values of exports shown as an 'of-which' item for each category of firm, broken down by detailed product.
- **The second stage will be to estimate the row transactions**, breaking down conventional SU rows into the same firm category options used to break down the SU columns.

53. **Countries able to develop a full row and column breakdown are however strongly encouraged to do so as one process and not necessarily as a two stage approach.**

Estimating Intermediate Imports by category of firm

54. Creating the supporting import flow matrices for Extended SUTs is one of the most critical objectives of the work of the EG. However difficult as this may be, the task is to some extent simpler than estimating domestic transactions, as, irrespective of the breakdown of columns, **it will not be necessary to create an additional breakdown of rows in the import flow matrices beyond those produced for conventional SU tables.** In theory this should therefore be a relatively simple exercise as countries already derive the row and should, at least in principle, be able to split these flows by category of purchasing firm. However, this may not always be the case, particularly for those countries where cruder approaches (e.g. the proportionality assumption) are used to estimate import flow matrices. As such the following provides some pointers that may be useful.

55. Estimates of imports purchased *directly* by firms are available from both standard FATS collections and when links are made between trade and business registers. However information on purchases of intermediate imports through domestic intermediaries (distributors) is typically not collected via these mechanisms. Where the distributor and the purchasing firm are affiliated, profiling can be used to estimate at least part of these '*indirect*' imports. But estimating the additional '*indirect*' imports will necessarily have to be made using assumptions.

56. It is however difficult to be too prescriptive on how intermediate imports should be estimated, as this will vary greatly by country depending on the information set available. As such, **the approach used for estimating 'indirect' intermediate imports purchased directly through intermediaries will be left to the discretion of countries.** Some care will be needed in estimating these flows however to avoid introducing biases in the Supply-Use tables. **Two extreme approaches should be conducted with care:**

- If 'indirect' intermediate imports in a particular product group are significant compared to directly purchased intermediate imports, allocating all 'indirect' intermediate imports to those firms not recording direct imports should be avoided as this may introduce downward biases of the import content of exporting firms.
- If 'indirect' intermediate imports in a particular product group are significant compared to directly purchased intermediate imports, allocating 'indirect' intermediate imports such that the total import to intermediate consumption ratios of all categories of firms in a given industry are equal should also be avoided as this may provide results that the import content of exporting and non-exporting firms is broadly similar.

57. By way of additional pointers countries are strongly encouraged to develop import-use matrices ensuring at least broad consistency with end-use category estimates that can be derived using detailed trade data.

58. **A key objective of the Task Force will be to identify 'best-practice' in this area.**

Confidentiality

59. In some cases, especially depending on the degree of breakdowns, countries provide, confidentiality restrictions may result in suppressions of data. Where this occurs efforts should be made to create groupings of firms that allow the firm categories to be provided in those cases where the evidence points to significant differences in value-added to output and import to intermediate consumption ratios. This could be done by reallocating some of the firms in one category to another in such a way that the heterogeneity of the different groups is retained, where it exists. If no such heterogeneity is observed, there will be no need to create a separate split but, for these industries the Expert Group is nonetheless encouraged to flag those industries where a split has not been made available because of confidentiality issues and those that have not been made because heterogeneity is not observed.

60. Keeping in mind the core objective to improve our understanding of GVCs, and in particular estimates of the import content of exports, a number of rules of thumb could be operationalised to reduce the breakdowns used without having a significant impact on core estimated indicators.

Rules of thumb for identifying whether splits of industries are necessary

61. **As a general rule of thumb countries should endeavour to provide a breakdown for all industries** however some simplifying rules could be adopted to minimise processing burdens.

62. A split of an industry grouping may be omitted:

- If exports by the entire industry are greater than 80% of output, or
- If the import to output **and** value-added to output ratio of each category of firm grouping is not significantly different: if the ratio of the import to output ratio of the firm grouping with the lowest ratio is greater than 75% of the import to output ratio of the firm grouping with the highest ratio **and** where the ratio of the value-added to output ratio of the firm grouping with the lowest ratio is greater than 75% of the value-added to output ratio of the firm grouping with the highest ratio.

63. An ownership breakdown for a given industry may be omitted:

- If foreign ownership reflects more than 80% of total output

64. A size class breakdown may be omitted:

- If one size class is responsible for more than 80% of output and a similar share of exports and imports.

5. Extensions to the Supply-Use Tables

65. The creation of the Expert Group provides an opportunity to consider extensions that could assist policy discussions in different fora.

Better understanding the benefits of Investment (and tackling issues raised by transfers in Intellectual Property and Base Erosion Profit Shifting - BEPS)

66. While the development of TiVA estimates through the construction of ‘conventional’ international supply-use and input-output tables have been able to shed important light on our

understanding of international trade and its relation to activity and competitiveness, in particular the importance of recognising the importance of imports to exports, and, so, the hitherto hidden costs of protectionism as well as the benefits of trade liberalisation, particularly in services, they do not reveal the full picture.

67. With significant shares of exports being driven by foreign affiliates, TiVA estimates have also revealed the importance of going beyond just value-added towards income, in order to capture flows outside of conventional international trade statistics, such as the repatriation of profits related to the use of non-produced knowledge based assets (e.g. brands) and, indeed, the repatriation of profits related to the use of produced knowledge based assets (e.g. software) that are (often incorrectly) not recorded as receipts from exports of services. The creation of the Expert Group, and the exploration of the use of breakdowns of industries into foreign/domestic categories to tackle the issue of heterogeneity, provides an opportunity to also consider whether additional extensions could help tackle these issues.

68. Typically information on property income payments to/from abroad collected as part of the Balance of Payments and SNS sector accounts are only available at the SNA institutional sector. However through the integration of firm level data, which is a central theme of much of what is described above, it is 'potentially' possible to consider compiling additional information that records these income items on an industry basis.

69. At the same time there has been considerable policy attention on BEPS in recent years but very little information is systematically produced as official statistics that provide insights into the phenomena. One important statistic that is typically lacking is *taxes on income paid by firms*.

70. Notwithstanding the fact that *operating surplus* should only be seen as a proxy for taxable profits, including information on *taxes on income* within a supply-use framework could provide these important insights, particularly if the information differentiates between foreign and domestically owned firms. Ideally, in this context, breakdowns of domestically owned firms could also differentiate between domestically owned firms with affiliates abroad and those without. Such a breakdown would of course increase the breakdown of industries presented below, and, so increase the complexity of the work of the Expert Group, so it is not proposed in the core tables presented below.

Jobs

71. Supply-Use tables do not typically include estimates of jobs by industry but they do usually contain breakdowns of value-added into its core components, including compensation of employees and mixed income, providing a mechanism (amongst others) to generate coherent 'TiVA-type' estimates for Jobs (or ideally hours worked). Information on jobs and hours worked data consistent with underlying compensation of employee/mixed income data therefore would not only provide an important extension to TiVA to capture employment (and also future extensions that linked skills data with employment data) but would, in and of itself, help to accelerate improvements in the coherence of national employment and value-added based estimates, and so productivity estimates.

Additional information on Trade partners

72. Not shown in the schema below, partly reflecting the simplistic illustration and partly reflecting the potential complexities is the possibility **to investigate whether import flow matrices could be made available on the basis of major trading partners**. The same holds for the export column. Such information will significantly improve the ability of supply-use and input-output tables to describe the true nature of interdependencies.

Emissions data

73. A considerable body of work has been produced exploring environmental footprints using input-output approaches. One key measure in this context is CO2 footprints. Collecting data on emissions by industrial classification is already a challenge so producing more detailed data along the lines of the breakdowns below may prove insurmountable for many countries without considerable effort. At this stage therefore the item on CO2 emissions included below should be seen only as a marker but those countries that are able to produce estimates are strongly encouraged to do so, as this would assist also in deliberations on SEEA.

6. Illustrative Extended SUTS

74. This section provides a non-exhaustive overview of the possible variants countries could use to explore the feasibility of producing Extended SUTs. Each variant is also provided in spreadsheet form accompanying these TOR. For each variant two sets of tables are provided. The first corresponds to the information requested in Step 1 above and the second to Step 2.

Export focus – (Export_focus.XLS)

75. Perhaps the simplest possible breakdown that could be considered is to break down industries (aggregate firms) into exporting and non-exporting categories, where the definition of what constitutes ‘exporting’ and ‘non-exporting’ should be decided at the national level.

| | |
|--------------------|------------------------|
| ‘Exporters’ | ‘Non-Exporters’ |
|--------------------|------------------------|

76. This information requires only a link between business and trade registers and structural business statistics but with refinements to ensure that ‘indirect’ exports passing through distribution intermediaries are also captured. Linking in this way will provide, in the first instance, estimates for firms engaged in direct exports. However, as described above, the exporter category should also include those firms that export via distributors.

77. For Stage 1, notwithstanding the difficulties related to indirect and direct exports, this is a relatively trivial breakdown.

78. For Stage 2, however countries will be asked to provide some guidance on how domestic transactions between categories of firms were measured or estimated.

Ownership focus – (Ownership_focus.XLS)

79. This approach capitalises on the availability of FATS/AMNE data and ability to link these firms to statistical business registers. Ideally, even though only an ownership dimension is pursued in this variant, it will still be useful to link data with trade registers in order to estimate the exports by each category of firm.

| | | |
|----------------------|-------------------------------|-----------------------|
| Foreign Owned | Domestically owned MNE | Domestic Owned |
|----------------------|-------------------------------|-----------------------|

80. For Stage 1, this is a relatively trivial breakdown. For the export ‘of-which’ items it would be useful to separately show intra-firm exports (collected within the FATS exercise)

81. For Stage 2, however countries will be asked to provide some guidance on how domestic transactions between categories of firms were measured or estimated.

82. Within the import flow matrix it would be desirable to record, where possible, intra-firm imports.

Size classes– (Size_class_focus.XLS)

83. Especially for those countries where ownership distinctions cannot be made, but where information is available via the linking of trade registers, business registers and SBS data, or where information on exports are directly collected as part of the SBS exercise, countries could provide the following split

| | | |
|--------------|---------------|--------------|
| Small | Medium | Large |
|--------------|---------------|--------------|

84. For Stage 1, this is a relatively trivial breakdown.

85. For Stage 2, however countries will be asked to provide some guidance on how domestic transactions between categories of firms were measured or estimated. Some stylised assumptions relating to the interactions between large and smaller firms may be achievable, for example, by assuming that the output for domestic intermediate consumption of small and medium enterprises is destined primarily for larger domestic enterprises. Countries will be asked to provide some guidance on how domestic transactions between categories of firms were measured or estimated.

Hybrid approaches – MNEs and Size

86. Countries are invited to submit their own variants as preferred, reflecting national circumstances. For example processing-non-processing firms; firms operating from trade free zones and other; factory-less producers, etc. One possible hybrid approach worth exploring by countries is to produce a size class breakdown only for those pure domestic enterprises, on the grounds that even if the MNE affiliate (or MNE parent) is small or medium the global enterprise group controlling the production process is typically large, and typically most MNEs (and affiliates) will export and import.

| | | | | |
|----------------------|-------------------------------|-------------------------------|--------------------------------|-------------------------------|
| Foreign Owned | Domestically owned MNE | Domestic Owned (Small) | Domestic Owned (Medium) | Domestic Owned (Large) |
|----------------------|-------------------------------|-------------------------------|--------------------------------|-------------------------------|

87. For Stage 1, this is a relatively trivial breakdown. For the export ‘of-which’ items it would be useful to separately show intra-firm exports (collected within the FATS exercise)

88. 41. For Stage 2, however countries will be asked to provide some guidance on how domestic transactions between categories of firms were measured or estimated.

Export focus summary tables: Supply Table

| Reference Year | Year' | | | | | | | | | | | | | | | |
|------------------------------------------|----------------------|------------|--------------|------------|---------------------------------------------------|-----------------------------------------|----------------------------------|---------------------------------------|--------------------|---------------------------------|-----------------------------------------|----------------------|--------|-----------|-------|-----------------------------------|
| ISIC Code equivalent | Product | Industry 1 | | Industry 2 | Total domestic output of products at basic prices | Total imports: cif products (fob total) | memo item: imports at fob prices | of which residents expenditure abroad | of which reimports | Taxes and subsidies on products | of which taxes and subsidies on imports | Distribution margins | | | | Total Supply at Purchasers prices |
| | | Exporter | Non-Exporter | Exporter | | | | | | | | Wholesale | Retail | Transport | Other | |
| Please insert ISIC equivalent code below | | | | | | | | | | | | | | | | |
| ISIC ? | Product (Industry) 1 | | | | | | | | | | | | | | | |
| ISIC ? | Product (Industry) 2 | | | | | | | | | | | | | | | |
| cif/fob adjustment | | | | | | | | | | | | | | | | |
| Total | | | | | | | | | | | | | | | | |

Export focus summary tables: Import Table

| Reference Year | Year' | Imports - all transactions at FOB prices | | | | | | | | | | | | | |
|------------------------------------------|----------------------|-------------------------------------------------|--------------|------------|--------------|--------------------------------|-----------------------------|-------|------|------|-----------|------------------------|---------------------------|------------|---------------|
| ISIC Code equivalent | Product | Industry 1 | | Industry 2 | | Total intermediate consumption | Household final consumption | NPISH | GGFC | GFCF | Valuables | Changes in Inventories | Non-residents expenditure | Re-exports | Total Imports |
| | | Exporter | Non-Exporter | Exporter | Non-Exporter | | | | | | | | | | |
| Please insert ISIC equivalent code below | | | | | | | | | | | | | | | |
| ISIC ? | Product (Industry) 1 | | | | | | | | | | | | | | |
| ISIC ? | Product (Industry) 2 | | | | | | | | | | | | | | |
| Total Imports | | | | | | | | | | | | | | | |

Export focus summary tables: Domestic Use Table Purchasers Prices – Stage 1

| Reference Year | Year | Domestic Use at Purchasers prices | | | | | | | | | | | | | | |
|------------------------------------------------------------|----------------------|-----------------------------------|--------------|------------|--------------|--------------------------------|-----------------------------|-------|------|------|-----------|------------------------|---------|------------------------------------|---------------------|-----------------------------------|
| ISIC Code equivalent | Product | Industry 1 | | Industry 2 | | Total intermediate consumption | Household final consumption | NPISH | GGFC | GFCF | Valuables | Changes in Inventories | Exports | of which non-residents expenditure | of which re-exports | Total Demand at Purchasers prices |
| | | Exporter | Non-Exporter | Exporter | Non-Exporter | | | | | | | | | | | |
| ISIC ? | Product (Industry) 1 | | | | | | | | | | | | | | | |
| ISIC ? | Product (Industry) 2 | | | | | | | | | | | | | | | |
| Total Imports | | | | | | | | | | | | | | | | |
| Total Intermediate consumption at purchasers prices | | | | | | | | | | | | | | | | |
| Gross Value added - Basic Prices | | | | | | | | | | | | | | | | |
| Gross Operating surplus | | | | | | | | | | | | | | | | |
| Mixed Income | | | | | | | | | | | | | | | | |
| Compensation of Employees | | | | | | | | | | | | | | | | |
| Other Taxes on Production | | | | | | | | | | | | | | | | |
| Other subsidies on production | | | | | | | | | | | | | | | | |
| Total Output at Basic Prices | | | | | | | | | | | | | | | | |
| exports by product | | | | | | | | | | | | | | | | |
| Primary product | | | | | | | | | | | | | | | | |
| Other products | | | | | | | | | | | | | | | | |
| Product (Industry) 1 | | | | | | | | | | | | | | | | |
| Product (Industry) 2 | | | | | | | | | | | | | | | | |
| own-account production of: | | | | | | | | | | | | | | | | |
| software | | | | | | | | | | | | | | | | |
| R&D | | | | | | | | | | | | | | | | |
| other | | | | | | | | | | | | | | | | |

Export focus summary tables: Domestic Use Table Basic Prices – Stage 1

| Reference Year | Year | Domestic Use at Basic prices | | | | | | | | | | | | | | |
|------------------------------------------|----------------------|------------------------------|--------------|------------|--------------|--------------------------------|-----------------------------|-------|------|------|-----------|------------------------|---------|------------------------------------|---------------------|--------------|
| ISIC Code equivalent | Product | Industry 1 | | Industry 2 | | Total intermediate consumption | Household final consumption | NPISH | GGFC | GFCF | Valuables | Changes in Inventories | Exports | of which non-residents expenditure | of which re-exports | Total Demand |
| | | Exporter | Non-Exporter | Exporter | Non-Exporter | | | | | | | | | | | |
| Please insert ISIC equivalent code below | | | | | | | | | | | | | | | | |
| ISIC ? | Product (Industry) 1 | | | | | | | | | | | | | | | |
| ISIC ? | Product (Industry) 2 | | | | | | | | | | | | | | | |
| Total Imports | | | | | | | | | | | | | | | | |
| Taxes and Subsidies on Products | | | | | | | | | | | | | | | | |
| <i>on imports</i> | | | | | | | | | | | | | | | | |
| <i>on domestic transactions</i> | | | | | | | | | | | | | | | | |
| Gross Value added - Basic Prices | | | | | | | | | | | | | | | | |
| <i>Gross Operating surplus</i> | | | | | | | | | | | | | | | | |
| <i>Mixed Income</i> | | | | | | | | | | | | | | | | |
| <i>Compensation of Employees</i> | | | | | | | | | | | | | | | | |
| <i>Other Taxes on Production</i> | | | | | | | | | | | | | | | | |
| <i>Other subsidies on production</i> | | | | | | | | | | | | | | | | |
| Total Output: Basic Prices | | | | | | | | | | | | | | | | |
| <i>of which</i> | | | | | | | | | | | | | | | | |
| <i>exports by product</i> | | | | | | | | | | | | | | | | |
| <i>Primary product</i> | | | | | | | | | | | | | | | | |
| <i>Other products</i> | | | | | | | | | | | | | | | | |
| <i>Product (Industry) 1</i> | | | | | | | | | | | | | | | | |
| <i>Product (Industry) 2</i> | | | | | | | | | | | | | | | | |
| <i>own-account production of:</i> | | | | | | | | | | | | | | | | |
| <i>software</i> | | | | | | | | | | | | | | | | |
| <i>R&D</i> | | | | | | | | | | | | | | | | |
| <i>other</i> | | | | | | | | | | | | | | | | |

Export focus summary tables: Domestic Use Table Basic Prices – Stage 2

| Reference Year | Year | Domestic Use at Basic prices | | | | | | | | | | | | | | |
|----------------------------------|----------------------|------------------------------|--------------|------------|--------------|--------------------------------|-----------------------------|-------|------|------|-----------|------------------------|---------|------------------------------------|---------------------|--------------|
| ISIC Code equivalent | Product | Industry 1 | | Industry 2 | | Total intermediate consumption | Household final consumption | NPISH | GGFC | GFCF | Valuables | Changes in Inventories | Exports | of which non-residents expenditure | of which re-exports | Total Demand |
| Product | Product produced by: | Exporter | Non-Exporter | Exporter | Non-Exporter | | | | | | | | | | | |
| Product (Industry) 1 | Exporter | | | | | | | | | | | | | | | |
| | Non-Exporter | | | | | | | | | | | | | | | |
| Product (Industry) 2 | Exporter | | | | | | | | | | | | | | | |
| | Non-Exporter | | | | | | | | | | | | | | | |
| Imports | | | | | | | | | | | | | | | | |
| Taxes and Subsidies on Products | | | | | | | | | | | | | | | | |
| on imports | | | | | | | | | | | | | | | | |
| on domestic transactions | | | | | | | | | | | | | | | | |
| Gross Value added - Basic Prices | | | | | | | | | | | | | | | | |
| Gross Operating surplus | | | | | | | | | | | | | | | | |
| Mixed Income | | | | | | | | | | | | | | | | |
| Compensation of Employees | | | | | | | | | | | | | | | | |
| Other Taxes on Production | | | | | | | | | | | | | | | | |
| Other subsidies on production | | | | | | | | | | | | | | | | |
| Total Output: Basic Prices | | | | | | | | | | | | | | | | |
| of which | | | | | | | | | | | | | | | | |
| own-account production of: | | | | | | | | | | | | | | | | |
| software | | | | | | | | | | | | | | | | |
| R&D | | | | | | | | | | | | | | | | |
| other | | | | | | | | | | | | | | | | |

Ownership focus summary tables: Supply Table

| Reference Year | Year | Supply Table | | | | | | | | | | | | | | | | | | | |
|------------------------------------------|----------------------|--------------|--------------|---------------------|------------|--------------|---------------------|---------------------------------------------------|-----------------------------------------|-----------------------------------|----------------------------------|-----------------------------------|---------------------------------------|--------------------|---------------------------------|-----------------------------------------|----------------------|--------|-----------|-------|-----------------------------------|
| ISIC Code equivalent | Product | Industry 1 | | | Industry 2 | | | Total domestic output of products at basic prices | Total imports: cif products (fob total) | of which intra-firm imports (cif) | memo item: imports at fob prices | of which intra firm imports (fob) | of which residents expenditure abroad | of which reimports | Taxes and subsidies on products | of which taxes and subsidies on imports | Distribution margins | | | | Total Supply at Purchasers prices |
| | | Foreign | Domestic MNE | Domestic ally owned | Foreign | Domestic MNE | Domestic ally owned | | | | | | | | | | Wholesale | Retail | Transport | Other | |
| Please insert ISIC equivalent code below | | | | | | | | | | | | | | | | | | | | | |
| ISIC ? | Product (Industry) 1 | | | | | | | | | | | | | | | | | | | | |
| ISIC ? | Product (Industry) 2 | | | | | | | | | | | | | | | | | | | | |
| cif/fob adjustment | | | | | | | | | | | | | | | | | | | | | |
| Total | | | | | | | | | | | | | | | | | | | | | |

Ownership focus summary tables: Import Table

| Reference Year | Year | Imports - all transactions at FOB prices | | | | | | | | | | | | | | | |
|------------------------------------------|----------------------------------------------------|------------------------------------------|--------------|---------------------|------------|--------------|---------------------|--------------------------------|-----------------------------|-------|------|------|-----------|------------------------|---------------------------|------------|---------------|
| ISIC Code equivalent | Product | Industry 1 | | | Industry 2 | | | Total intermediate consumption | Household final consumption | NPISH | GGFC | GFCF | Valuables | Changes in Inventories | Non-residents expenditure | Re-exports | Total Imports |
| | | Foreign | Domestic MNE | Domestic ally owned | Foreign | Domestic MNE | Domestic ally owned | | | | | | | | | | |
| Please insert ISIC equivalent code below | | | | | | | | | | | | | | | | | |
| ISIC ? | Product (Industry) 1 <i>of which intra-firm</i> | | | | | | | | | | | | | | | | |
| ISIC ? | Product (Industry) 2 <i>of which intra-firm</i> | | | | | | | | | | | | | | | | |
| Total Imports | | | | | | | | | | | | | | | | | |
| <i>of which intra-firm</i> | | | | | | | | | | | | | | | | | |

Ownership focus summary tables: Domestic Use Table Purchasers Prices – Stage 1

| Reference Year | Year | Domestic use at purchasers prices | | | | | | | | | | | | | | | | |
|-----------------------------------------------------|----------------------|-----------------------------------|--------------|---------------------|------------|--------------|---------------------|-----------------------------|-------|------|------|-----------|------------------------|---------|------------------------------------|---------------------|-----------------------------|-----------------------------------|
| ISIC Code equivalent | Product | Industry 1 | | | Industry 2 | | | Household final consumption | NPISH | GGFC | GFCF | Valuables | Changes in Inventories | Exports | of which non-residents expenditure | of which re-exports | of which intra-firm exports | Total Demand at Purchasers prices |
| | | Foreign | Domestic MNE | Domestic ally owned | Foreign | Domestic MNE | Domestic ally owned | | | | | | | | | | | |
| Please insert ISIC equivalent code below | | | | | | | | | | | | | | | | | | |
| ISIC ? | Product (Industry) 1 | | | | | | | | | | | | | | | | | |
| ISIC ? | Product (Industry) 2 | | | | | | | | | | | | | | | | | |
| Total Imports | | | | | | | | | | | | | | | | | | |
| Total Intermediate consumption at purchasers prices | | | | | | | | | | | | | | | | | | |
| Gross Value added - Basic Prices | | | | | | | | | | | | | | | | | | |
| Gross Operating surplus | | | | | | | | | | | | | | | | | | |
| Mixed Income | | | | | | | | | | | | | | | | | | |
| Compensation of Employees | | | | | | | | | | | | | | | | | | |
| Other Taxes on Production | | | | | | | | | | | | | | | | | | |
| Other subsidies on production | | | | | | | | | | | | | | | | | | |
| Total Output at Basic Prices | | | | | | | | | | | | | | | | | | |
| exports by product | | | | | | | | | | | | | | | | | | |
| Primary product | | | | | | | | | | | | | | | | | | |
| Other products | | | | | | | | | | | | | | | | | | |
| Product (Industry) 1 | | | | | | | | | | | | | | | | | | |
| Product (Industry) 2 | | | | | | | | | | | | | | | | | | |
| own-account production of: | | | | | | | | | | | | | | | | | | |
| software | | | | | | | | | | | | | | | | | | |
| R&D | | | | | | | | | | | | | | | | | | |
| other | | | | | | | | | | | | | | | | | | |

Ownership focus summary tables: Domestic Use Table Basic Prices – Stage 1

| Reference Year | Year | Domestic Use at Basic prices | | | | | | | | | | | | | | | | |
|------------------------------------------|----------------------|------------------------------|--------------|---------------------|------------|--------------|---------------------|--------------------------------|-----------------------------|-------|------|------|-----------|------------------------|---------|------------------------------------|---------------------|--|
| ISIC Code equivalent | Product | Industry 1 | | | Industry 2 | | | Total intermediate consumption | Household final consumption | NPISH | GGFC | GFCF | Valuables | Changes in Inventories | Exports | of which non-residents expenditure | of which re-exports | |
| Please insert ISIC equivalent code below | | Foreign | Domestic MNE | Domestic ally owned | Foreign | Domestic MNE | Domestic ally owned | | | | | | | | | | | |
| ISIC ? | Product (Industry) 1 | | | | | | | | | | | | | | | | | |
| ISIC ? | Product (Industry) 2 | | | | | | | | | | | | | | | | | |
| Total Imports | | | | | | | | | | | | | | | | | | |
| Taxes and Subsidies on Products | | | | | | | | | | | | | | | | | | |
| <i>on imports</i> | | | | | | | | | | | | | | | | | | |
| <i>on domestic transactions</i> | | | | | | | | | | | | | | | | | | |
| Gross Value added - Basic Prices | | | | | | | | | | | | | | | | | | |
| <i>Gross Operating surplus</i> | | | | | | | | | | | | | | | | | | |
| <i>Mixed Income</i> | | | | | | | | | | | | | | | | | | |
| <i>Compensation of Employees</i> | | | | | | | | | | | | | | | | | | |
| <i>Other Taxes on Production</i> | | | | | | | | | | | | | | | | | | |
| <i>Other subsidies on production</i> | | | | | | | | | | | | | | | | | | |
| Total Output: Basic Prices | | | | | | | | | | | | | | | | | | |
| of which | | | | | | | | | | | | | | | | | | |
| <i>exports by product</i> | | | | | | | | | | | | | | | | | | |
| <i>Primary product</i> | | | | | | | | | | | | | | | | | | |
| <i>Other products</i> | | | | | | | | | | | | | | | | | | |
| <i>Product (Industry) 1</i> | | | | | | | | | | | | | | | | | | |
| <i>Product (Industry) 2</i> | | | | | | | | | | | | | | | | | | |
| <i>own-account production of:</i> | | | | | | | | | | | | | | | | | | |
| <i>software</i> | | | | | | | | | | | | | | | | | | |
| <i>R&D</i> | | | | | | | | | | | | | | | | | | |
| <i>other</i> | | | | | | | | | | | | | | | | | | |

Ownership focus summary tables: Domestic Use Table Basic Prices – Stage 2

| Reference Year | Year | Domestic Use at Basic prices | | | | | | | | | | | | | | | | | |
|-----------------------------------------|----------------------|------------------------------|--------------|---------------------|------------|--------------|---------------------|--------------------------------|-----------------------------|-------|------|------|-----------|------------------------|---------|------------------------------------|---------------------|-----------------------------|--------------|
| ISIC Code equivalent | Product | Industry 1 | | | Industry 2 | | | Total intermediate consumption | Household final consumption | NPISH | GGFC | GFCF | Valuables | Changes in Inventories | Exports | of which non-residents expenditure | of which re-exports | of which intra-firm exports | Total Demand |
| Product | Product produced by: | Foreign | Domestic MNE | Domestic ally owned | Foreign | Domestic MNE | Domestic ally owned | | | | | | | | | | | | |
| Product (Industry 1) | Foreign | | | | | | | | | | | | | | | | | | |
| | Domestic MNE | | | | | | | | | | | | | | | | | | |
| | Domestically owned | | | | | | | | | | | | | | | | | | |
| Product (Industry 2) | Foreign | | | | | | | | | | | | | | | | | | |
| | Domestic MNE | | | | | | | | | | | | | | | | | | |
| | Domestically owned | | | | | | | | | | | | | | | | | | |
| Total Imports | | | | | | | | | | | | | | | | | | | |
| Taxes and Subsidies on Products | | | | | | | | | | | | | | | | | | | |
| on imports | | | | | | | | | | | | | | | | | | | |
| on domestic transactions | | | | | | | | | | | | | | | | | | | |
| Gross Value added - Basic Prices | | | | | | | | | | | | | | | | | | | |
| Gross Operating surplus | | | | | | | | | | | | | | | | | | | |
| Mixed Income | | | | | | | | | | | | | | | | | | | |
| Compensation of Employees | | | | | | | | | | | | | | | | | | | |
| Other Taxes on Production | | | | | | | | | | | | | | | | | | | |
| Other subsidies on production | | | | | | | | | | | | | | | | | | | |
| Total Output: Basic Prices | | | | | | | | | | | | | | | | | | | |
| of which | | | | | | | | | | | | | | | | | | | |
| own-account production of: | | | | | | | | | | | | | | | | | | | |
| software | | | | | | | | | | | | | | | | | | | |
| R&D | | | | | | | | | | | | | | | | | | | |
| other | | | | | | | | | | | | | | | | | | | |

Size class focus summary tables: Supply Table

| Reference Year | Year | | | | | | | | | | | | | | | | | | | |
|------------------------------------------|----------------------|------------|--------|-------|------------|--------|-------|---------------------------------------------------|-----------------------------------------|-----------------------------------|----------------------------------|---------------------------------------|--------------------|---------------------------------|-----------------------------------------|----------------------|--------|-----------|-------|-----------------------------------|
| ISIC Code equivalent | Product | Industry 1 | | | Industry 2 | | | Total domestic output of products at basic prices | Total imports: cif products (fob total) | of which intra-firm imports (cif) | memo item: imports at fob prices | of which residents expenditure abroad | of which reimports | Taxes and subsidies on products | of which taxes and subsidies on imports | Distribution margins | | | | Total Supply at Purchasers prices |
| | | Small | Medium | Large | Small | Medium | Large | | | | | | | | | Wholesale | Retail | Transport | Other | |
| Please insert ISIC equivalent code below | | | | | | | | | | | | | | | | | | | | |
| ISIC ? | Product (Industry) 1 | | | | | | | | | | | | | | | | | | | |
| ISIC ? | Product (Industry) 2 | | | | | | | | | | | | | | | | | | | |
| cif/fob adjustment | | | | | | | | | | | | | | | | | | | | |
| Total | | Exporter | | | | | | | | | | | | | | | | | | |

Size class focus summary tables: Import Table

| Reference Year | Year | Imports - all transactions at FOB prices | | | | | | | | | | | | | | | |
|------------------------------------------|----------------------|------------------------------------------|--------|-------|------------|--------|-------|--------------------------------|-----------------------------|-------|------|------|-----------|------------------------|---------------------------|------------|---------------|
| ISIC Code equivalent | Product | Industry 1 | | | Industry 2 | | | Total intermediate consumption | Household final consumption | NPISH | GGFC | GFCF | Valuables | Changes in Inventories | Non-residents expenditure | Re-exports | Total Imports |
| | | Small | Medium | Large | Small | Medium | Large | | | | | | | | | | |
| Please insert ISIC equivalent code below | | | | | | | | | | | | | | | | | |
| ISIC ? | Product (Industry) 1 | | | | | | | | | | | | | | | | |
| ISIC ? | Product (Industry) 2 | | | | | | | | | | | | | | | | |
| Total Imports | | | | | | | | | | | | | | | | | |

Size class focus summary tables: Domestic Use Table Purchasers Prices – Stage 1

| Reference Year | Year | Domestic use at purchasers prices | | | | | | | | | | | | | | | |
|------------------------------------------------------------|----------------------|-----------------------------------|--------|-------|------------|--------|-------|-----------------------------|-------|------|------|-----------|------------------------|---------|------------------------------------|---------------------|-----------------------------------|
| ISIC Code equivalent | Product | Industry 1 | | | Industry 2 | | | Household final consumption | NPISH | GGFC | GFCF | Valuables | Changes in Inventories | Exports | of which non-residents expenditure | of which re-exports | Total Demand at Purchasers prices |
| | | Small | Medium | Large | Small | Medium | Large | | | | | | | | | | |
| Please insert ISIC equivalent code below | | | | | | | | | | | | | | | | | |
| ISIC ? | Product (Industry) 1 | | | | | | | | | | | | | | | | |
| ISIC ? | Product (Industry) 2 | | | | | | | | | | | | | | | | |
| Total Imports | | | | | | | | | | | | | | | | | |
| Total Intermediate consumption at purchasers prices | | | | | | | | | | | | | | | | | |
| Gross Value added - Basic Prices | | | | | | | | | | | | | | | | | |
| <i>Gross Operating surplus</i> | | | | | | | | | | | | | | | | | |
| <i>Mixed Income</i> | | | | | | | | | | | | | | | | | |
| <i>Compensation of Employees</i> | | | | | | | | | | | | | | | | | |
| <i>Other Taxes on Production</i> | | | | | | | | | | | | | | | | | |
| <i>Other subsidies on production</i> | | | | | | | | | | | | | | | | | |
| Total Output at Basic Prices | | | | | | | | | | | | | | | | | |
| <i>exports by product</i> | | | | | | | | | | | | | | | | | |
| <i>Primary product</i> | | | | | | | | | | | | | | | | | |
| <i>Other products</i> | | | | | | | | | | | | | | | | | |
| <i>Product (Industry) 1</i> | | | | | | | | | | | | | | | | | |
| <i>Product (Industry) 2</i> | | | | | | | | | | | | | | | | | |
| <i>own-account production of:</i> | | | | | | | | | | | | | | | | | |
| <i>software</i> | | | | | | | | | | | | | | | | | |
| <i>R&D</i> | | | | | | | | | | | | | | | | | |
| <i>other</i> | | | | | | | | | | | | | | | | | |

Size class focus summary tables: Domestic Use Table Basic Prices– Stage 1

| Reference Year | Year | Domestic Use at Basic prices | | | | | | | | | | | | | | | | |
|-------------------------------------------------|----------------------|------------------------------|--------|-------|------------|--------|-------|--------------------------------|-----------------------------|-------|------|------|-----------|------------------------|---------|------------------------------------|---------------------|--------------|
| ISIC Code equivalent | Product | Industry 1 | | | Industry 2 | | | Total intermediate consumption | Household final consumption | NPISH | GGFC | GFCF | Valuables | Changes in Inventories | Exports | of which non-residents expenditure | of which re-exports | Total Demand |
| | | Small | Medium | Large | Small | Medium | Large | | | | | | | | | | | |
| Please insert ISIC equivalent code below | | | | | | | | | | | | | | | | | | |
| ISIC ? | Product (Industry) 1 | | | | | | | | | | | | | | | | | |
| ISIC ? | Product (Industry) 2 | | | | | | | | | | | | | | | | | |
| Total Imports | | | | | | | | | | | | | | | | | | |
| Taxes and Subsidies on Products | | | | | | | | | | | | | | | | | | |
| <i>on imports</i> | | | | | | | | | | | | | | | | | | |
| <i>on domestic transactions</i> | | | | | | | | | | | | | | | | | | |
| Gross Value added - Basic Prices | | | | | | | | | | | | | | | | | | |
| <i>Gross Operating surplus</i> | | | | | | | | | | | | | | | | | | |
| <i>Mixed Income</i> | | | | | | | | | | | | | | | | | | |
| <i>Compensation of Employees</i> | | | | | | | | | | | | | | | | | | |
| <i>Other Taxes on Production</i> | | | | | | | | | | | | | | | | | | |
| <i>Other subsidies on production</i> | | | | | | | | | | | | | | | | | | |
| Total Output:Basic Prices | | | | | | | | | | | | | | | | | | |
| <i>of which</i> | | | | | | | | | | | | | | | | | | |
| <i>exports by product</i> | | | | | | | | | | | | | | | | | | |
| <i>Primary product</i> | | | | | | | | | | | | | | | | | | |
| <i>Other products</i> | | | | | | | | | | | | | | | | | | |
| <i>Product (Industry) 1</i> | | | | | | | | | | | | | | | | | | |
| <i>Product (Industry) 2</i> | | | | | | | | | | | | | | | | | | |
| <i>own-account production of:</i> | | | | | | | | | | | | | | | | | | |
| <i>software</i> | | | | | | | | | | | | | | | | | | |
| <i>R&D</i> | | | | | | | | | | | | | | | | | | |
| <i>other</i> | | | | | | | | | | | | | | | | | | |

Size class focus summary tables: Domestic Use Table Basic Prices– Stage 2

| Reference Year | Year | Domestic Use at Basic prices | | | | | | | | | | | | | | | | | |
|-----------------------------------------|--------------------------|------------------------------|--------|-------|------------|--------|-------|--------------------------------|-----------------------------|-------|------|------|-----------|------------------------|---------|------------------------------------|---------------------|--------------|--|
| ISIC Code equivalent | Product | Industry 1 | | | Industry 2 | | | Total intermediate consumption | Household final consumption | NPISH | GGFC | GFCF | Valuables | Changes in Inventories | Exports | of which non-residents expenditure | of which re-exports | Total Demand | |
| Product | Product produced by: | Small | Medium | Large | Small | Medium | Large | | | | | | | | | | | | |
| Product (Industry) 1 | Small Medium Large | | | | | | | | | | | | | | | | | | |
| Product (Industry) 2 | Small Medium Large | | | | | | | | | | | | | | | | | | |
| Total Imports | | | | | | | | | | | | | | | | | | | |
| Taxes and Subsidies on Products | | | | | | | | | | | | | | | | | | | |
| <i>on imports</i> | | | | | | | | | | | | | | | | | | | |
| <i>on domestic transactions</i> | | | | | | | | | | | | | | | | | | | |
| Gross Value added - Basic Prices | | | | | | | | | | | | | | | | | | | |
| <i>Gross Operating surplus</i> | | | | | | | | | | | | | | | | | | | |
| <i>Mixed Income</i> | | | | | | | | | | | | | | | | | | | |
| <i>Compensation of Employees</i> | | | | | | | | | | | | | | | | | | | |
| <i>Other Taxes on Production</i> | | | | | | | | | | | | | | | | | | | |
| <i>Other subsidies on production</i> | | | | | | | | | | | | | | | | | | | |
| Total Output: Basic Prices | | | | | | | | | | | | | | | | | | | |
| <i>of which</i> | | | | | | | | | | | | | | | | | | | |
| <i>own-account production of:</i> | | | | | | | | | | | | | | | | | | | |
| <i>software</i> | | | | | | | | | | | | | | | | | | | |
| <i>R&D</i> | | | | | | | | | | | | | | | | | | | |
| <i>other</i> | | | | | | | | | | | | | | | | | | | |

Extensions to the Supply-Use Framework illustration for exporter category

| | Industry 1 | | | | Industry 2 | | | |
|---------------------------------------------|------------|--------------|----------|--------------|------------|--------------|----------|--------------|
| | Foreign | | Domestic | | Foreign | | Domestic | |
| | Exporter | Non-Exporter | Exporter | Non-Exporter | Exporter | Non-Exporter | Exporter | Non-Exporter |
| Property income payments - to abroad | | | | | | | | |
| <i>of which</i> | | | | | | | | |
| <i>Interest</i> | | | | | | | | |
| <i>Distributed Income of Corporations</i> | | | | | | | | |
| <i>Reinvested Earnings on FDI</i> | | | | | | | | |
| <i>Investment Income Disbursements</i> | | | | | | | | |
| Property Income payments - to abroad | | | | | | | | |
| <i>of which</i> | | | | | | | | |
| <i>Interest</i> | | | | | | | | |
| <i>Distributed Income of Corporations</i> | | | | | | | | |
| <i>Reinvested Earnings on FDI</i> | | | | | | | | |
| <i>Investment Income Disbursements</i> | | | | | | | | |
| Current taxes on income and wealth | | | | | | | | |
| Employment | | | | | | | | |
| Employees | | | | | | | | |
| Hours worked | | | | | | | | |
| Co2 emissions | | | | | | | | |

Timing and Deliverables

89. The Expert Group has a mandate of two years, with results expected by December 2016, in the shape of a final report with recommendations that describe best practice and propose guidance towards creating possible international standards in this field. One specific goal is to develop a minimum level of industries and further disaggregation that could serve as a ‘minimum’ information set countries should aim for.

90. The Group will be expected to meet once a year, with the next meeting expected towards the end of 2015 and the final meeting towards the end of 2016 to discuss the final results of the Expert Group.

91. Between meetings discussions will take place via an Electronic Discussion Group co-ordinated by the OECD. A more detailed time-table including deliverables is provided below.

- **October 2014:** First Meeting of the Expert Group
- **March 2015:** Country reports on assessment of national data and proposals for the structure of national Supply-Use tables, following the structure of Tables 2-4 above.
- **April 2015:** Synthesis Report describing national plans – sources and proposed methods
- **October 2015:** Second meeting of the Expert Group – to discuss provisional supply-use tables (Tables 2-4) – challenges, estimation procedures and sharing national experiences – and early considerations on Table 5 (extensions).
- **December 2015:** First draft of the Final Report describing best practice – sources and methods.
- **February 2016:** Draft report (analysis) describing impact of the ‘Extended’ approach on GVC indicators.
- **April 2016:** Progress update from Expert Group Members, building on best-practice lessons from December 2015.
- **September 2016:** Final national ‘extended’ supply-use tables
- **October 2016:** Second and final meeting - to discuss the draft report
- **December 2016:** Final Report