

Economic Ownership and Multi-national enterprises

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1. The concept of economic ownership

Economic ownership is a national accounts and balance of payments concept. It is a fundamental principle in both accounting systems to record product transactions based on the change of economic ownership. In the context of globalisation, this principle can have significant impact on how the output/value added and trade in goods and services are distributed among countries.

The System of National Accounts (SNA) defines economic ownership as follows: “*The economic owner of entities such as goods and services, natural resources, financial assets and liabilities is the institutional unit entitled to claim the benefits associated with the use of the entity in question in the course of an economic activity by virtue of accepting the associated risks*” (2008 SNA para. 3.26).

Two reasons for implementing the concept of economic ownership are to improve classification of enterprises with factoryless goods producers in other countries and to improve the relation between inputs and outputs in productivity analysis.

A harmonized treatment based on economic ownership is challenging for the economic statistical system in several ways:

- There are differences between statistical domains on what principal of ownership that is used, mainly PRODCOM and ITGS.
- There are differences between the concepts of ownership used in company accounts and national accounts/balance of payments, for example concerning financial leasing, ownership of Intellectual Property Products (IPP), the treatment of branches etc.

2. Economic ownership in different statistical areas

2.1 National Accounts (NA)

According to ESA 2010 the economic owner is the unit that accepts the risks and rewards of using the goods in production. The economic owner usually coincides with the legal owner but it may be different in exceptional cases, for example in cases of financial leasing and repurchase arrangements. The principle of economic ownership should be applied in National accounts.

Besides ESA2010 the national accounts also have to take the following regulations, manuals and guidelines into account:

- SNA2008
- NACE Outsourcing Manual 2014
- Guide to Measuring Global Production 2015 (UNECE)
- Frascati manual for R&D 2015
- Report on Intellectual Property Products 2020 (OECD/Eurostat)

2.2 Balance of Payments (BoP)

The principle of economic ownership should be applied in the Balance of Payments according to the manual BPM6 that was updated in 2008. The wording “economic ownership” is mentioned several times in BPM6 and is described like this in paragraph 3.41:

*The term “economic ownership” reflects the underlying reality economic accounts are attempting to measure. **Economic ownership takes account of where the risks and rewards of ownership lie.** A change in ownership from an economic point of view means that all risks, rewards, and rights and responsibilities of ownership in practice are transferred.*

Exports or imports of goods, or the acquisition of assets or incurrance of liabilities should be recorded in the BOP at the moment in which a change in **economic ownership** occurs.

Trade in goods is recorded only when the goods change **economic ownership**, not when they are physically shipped to an **economy** for processing without any change in ownership”

In general, a change in “legal ownership” also involves a change in economic ownership. In some cases, a change of “economic ownership” takes place even though the “legal ownership” remains unchanged (e.g., financial leases and transactions between an enterprise and its foreign branches). In other cases, there is no change in economic ownership, even though there is a change in legal ownership. For example, for repurchase agreements involving the provision of securities for cash, the risks and rewards attached to the securities remain with the original holder and the only transaction is a loan.

2.3 PRODCOM

PRODCOM statistics measure industrial production in the EU in terms of sold production and quantities annually. The geographical dimension is very important in PRODCOM. The principle of economic ownership is NOT applied as these statistics only cover the production carried out within the national territory. An important difference compared to statistics where the change of economic ownership principal is applied would be the treatment of goods sent abroad for processing.

2.4 Structural Business Statistics (SBS)

Structural Business Statistics is an annual survey that establishes a common framework on the structure, activity, competitiveness and performance of businesses in the EU. SBS is often used as a source statistic for national accounts.

One of the main sources in SBS is the enterprises' financial statements. If financial statements are used for data on net turnover, value of output, valued added, purchases of goods and services and investments in both tangible and intangible assets, implicitly the concept of legal ownership is applied. In most cases legal ownership coincides with economic ownership but there are exceptions as mentioned above in sections 2.1 NA and 2.2 BoP.

If business financial statements are used as a data source, it is important to be aware of the differences in accounting standards (i.e. International accounting standards versus national accounting standards) as this can affect how transactions are presented in the financial statements. An example of this is the difference in the treatment of operating leases.

2.5 Short Term Statistics (STS)

STS establishes a common framework for describing the most recent developments in the areas of industry, construction, retail trade and services of the economies of the EU.

The principle of economic ownership is, in principle, applied. However, due to the time constraints and because of the use of administrative sources, deviations from the principle might occur.

2.6 European Business Statistics (EBS), former FRIBS

EBS enters into force in 2021. The concept of economic ownership will be applied with the following description:

“The principle of economic ownership as described in Regulation (EU) No 549/2013[ESA 2010] shall be applied in European business statistics. It shall be implemented to the extent possible, taking into account justified user needs, data availability, cost and burden implications, and insofar it is not in contradiction with the principles and purposes of certain business statistics laid down in this Regulation.”

2.7 International Trade statistics (ITGS and ITSS)

European statistics on international trade in goods (ITGS) measure the value and quantity of goods traded between EU Member States (intra-EU trade) and goods traded by EU Member States with non-EU countries (extra-EU trade). European ITGS are the official harmonised source of information about exports, imports and the trade balances of the EU. The principle of economic ownership is NOT applied, since it is the border crossing that is important in ITGS. Many countries use customs data as a source for ITGS.

European statistics on international trade in services (ITSS) measure the value of foreign trade in services. ITSS follows the BPM6 manual which indicates that the principle of economic ownership should be applied. Unfortunately accounting for international flows related to IPPs poses many challenges. For example, there are difficulties in distinguishing the payment for a transfer of economic ownership of IPP and charges for the use of IPP.

2.8 Producer prices

Producer price indices (PPI) measure the rate of price change for products and services as they are sold by the producer (either a manufacturing or a service company). They exclude any taxes, transport and trade margins that the purchaser may have to pay.

International manuals provide a detailed framework and methodological guidance to measure producer price indices. These include the:

- IMF's "Producer Price Index Manual: Theory and Practice. (2004)
- Eurostat-OECD's "Methodological Guide for Developing Producer Price Indices for Services" (2014)
- Eurostat's Handbook on industrial producer price indices (PPI) (2012)
- Handbook on prices and volume measures in national accounts (2016)

In Europe, Eurostat's STS regulations also cover practical aspects of PPI's compilation.

Limited attention is, however, given, in the manuals to the concept of economic ownership and the practical challenges of price measurement in a global economy.

The IMF PPI manual, which focuses on the industrial (manufacturing) PPI recognises the challenges posed by globalisation and complex manufacturing outsourcing models:

"the PPI program is challenged to review its concepts of domestic production and manufacturing. Criteria for manufacturing may need to be revised to give primary weight to new product design and prototyping, while discounting the importance of actual production. The boundary between manufacturing and wholesale trade may need to be re-established in recognition of this."

The OECD-Eurostat manual, which focuses on the Producer Price Indices for Services also touches on outsourcing issues and intra-company provision of services, with a direct mention of economic ownership consideration for "processor firms":

"... <firms that provide processing services by manufacturing goods for clients who own part of the inputs in the production process> ... The 2008 SNA recommends that international transactions by these firms should follow the principle of economic ownership, bringing the treatment of processing firms that manufacture goods for foreign clients in line with that of processing firms providing manufactured goods for domestic clients". These manufacturing services however are not covered by the manual.

A challenge for PPIs is that they are mainly used for two purposes: as indicators of price change and deflators of current price values. As deflators, there is a clear need for PPIs to be consistent in definitions and coverage with the wider SNA and the collection of the output data, so that volumes can be correctly estimated. However this requirement may conflict with PPI's use as indicators of domestic price change to be used as a wider economic indicator.

For some countries, such as Sweden and the UK, another challenge is the reliance of PPI data collection upon PRODCOM. PRODCOM data is used in some countries as sampling frame for PPI surveys and as such it will have the same geographical focus. The shift from the historic concept of domestic production based on geography to one based on

economic ownership will likely require changes to long-standing data collection and practice guidelines. For example, in the UK, products which are manufactured abroad have always been purposively excluded from PPI, regardless of the specific economic arrangements in place between the UK-based sampled firm and the overseas manufacturing unit.

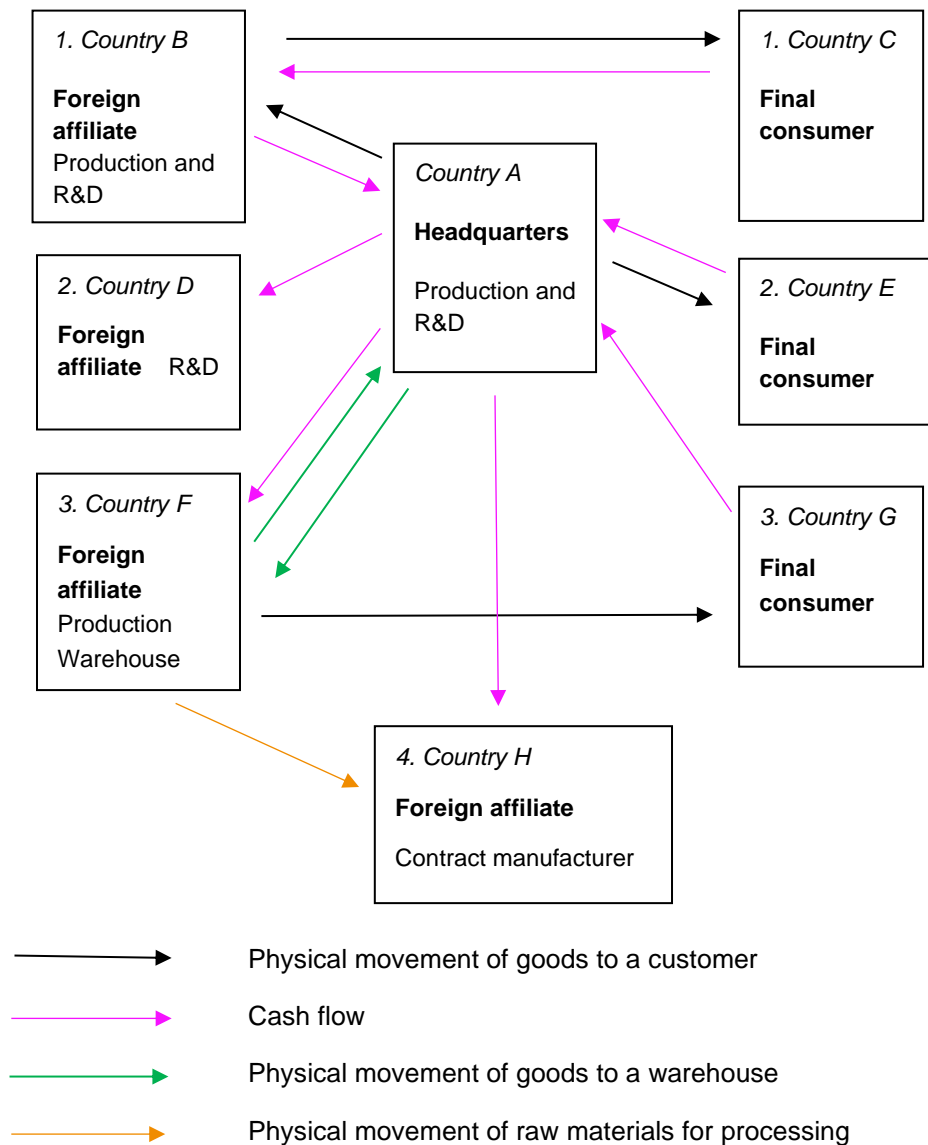
Finally, economic ownership challenges combine with already acknowledged difficulties in measuring prices for products and services being transferred within a company. While there is consensus that prices for such activities should be captured in PPI, the overriding requirement to reflect market prices makes it difficult to measure correctly intra-company price movements where price setting may not be done at "arms' length".

3. Challenges in implementing the concept of economic ownership

There are several problem areas connected to the concept of economic ownership, some of them already described in section 2 (for example concerning PPI in 2.8). One fundamental challenge is to decide how to classify (according to ISIC) the enterprises outsourcing a large amount of their production to other countries. If production has been outsourced it also can be hard to determine the correct amounts for production, costs, investments, imports and exports in the countries involved. In addition to that, outsourcing has effects on productivity measurements when manufacturing output is captured irrespective of location, while employment is based on location.

In diagram 1 we illustrate some examples on how transactions within a multinational enterprise group can be arranged. In each case, we give some examples on problems arising from these arrangements.

Diagram 1: Flows of goods, R&D and Payments in a MNE



The headquarters of the MNE is situated in Country A, where both manufacturing and Research and development activities takes place. There is no warehouse situated in Country A.

In the first case Country A sells goods to a foreign affiliate in Country B. The affiliate adds some R&D and completes the order with additional goods, before shipping the goods to the final consumer in Country C. The final consumer pays the invoice to the foreign affiliate in Country B whom passes on the right share to the headquarters. This case can cause discrepancies between on one hand PRODCOM, foreign trade statistics and STS and on the other hand NA and BoP. The border crossing is not the same as a transfer of economic ownership, since the risks and rewards lies with Country A until the goods is delivered to the

final consumer. The full amount of the goods sold to the final consumer should be recorded in NA, but if the transaction is captured in the STS (on behalf of NA) it might be to the lower amount in the first transaction with Country B. One solution to the problem is adding explicit questions about the final value of goods sent abroad for processing in STS, PRODCOM, ITGS and ITSS.

In the second case, the headquarter uses an IPP developed and owned by a foreign affiliate in Country D in the production of goods on behalf of a final consumer in Country E. The final consumer pays the invoice to the headquarters who passes on a license fee to Country D. There are still ongoing discussions about how to classify the ownership of an IPP in the national accounts and balance of payments (you can read more about IPP in section 5.3).

In the third case, a foreign affiliate in Country F produces (and owns) goods to be sent to a final consumer in Country G. However, the payment for this delivery is not sent directly to the producer. Instead, the payment goes to the headquarters, who passes the whole amount on to the producer in Country F. In this case the cash flows could create gross values for imports and exports in the foreign trade statistics in Country A. This can cause problems in the ITSS and NA. Ideally the economic ownership should be transferred directly between Country F and Country G and the only thing recorded in Country A should be the invoicing fee.

The foreign affiliate in Country F also has a warehouse used for storage of goods, produced and owned by the headquarters. This results in frequent flows of goods between the two countries and a cash flow from Country A to Country F as payment for the warehouse service. The economic ownership of the stored goods lies with the headquarters but the frequent border crossings creates problems in foreign trade statistics and national accounts.

In the fourth case, the headquarters in Country A buys raw materials from a foreign affiliate in Country F, to be sent to a 3rd party manufacturer (contract manufacturer) in Country H. The contract manufacturer in Country H buys the raw materials (sent by Country F) from Country A. The contract manufacturer in Country H processes the raw materials and sells the finished goods to Country A. To simplify, this is a case where a contract manufacturer owns the raw materials, processes it and sells it back to its parent.

There is a physical movement of raw materials from Country F to Country H. However, Country F is only transferring the goods to Country H on behalf of Country A. This can cause issues in the ITGS and NA.

4. Eurostat initiatives

Eurostat has launched several initiatives to improve the quality of economic statistics by minimizing the impact from changes in structures and accounting principles among multinational Enterprise Groups (MNEs). One example is the European Profiling program that has been running since 2015 and where NSIs have been able to get funding for their work with profiling of large enterprise groups. Another example is the Eurostat expert group on economic ownership that was created in 2018. Some of the initiatives from Eurostat are summarized in the document “A systematic and coordinated approach for a better and more consistent measurement of MNEs across economic statistics” dated in September 2019. Below we give you a summary of the contents of this document.

4.1 The European System of Statistical Business Registers

The increasingly global activities and structures of enterprises challenge the integration, coherence, consistency and comparison of business- and macroeconomic statistics across member states and across statistical domains. This asks for a structured solution where cross border relationships and activities of the most important MNEs can be stored, maintained and made available for compiling statistics on cross border phenomena. The EuroGroups Register (EGR) is the joint tool in the ESS for the coordination of basic information about MNEs from the Member States' Statistical Business Registers (SBR). Based on input from the Member States the EGR links and processes data creating the global structures of MNEs resident in the EU and their constituent legal units.

4.2 Early-warning system (EWS)

Unanticipated major restructuring events of MNEs in 2015 and 2016 challenged user perceptions of the quality and consistency of European business and macroeconomic statistics. The “Early Warning System” (EWS) was established in 2017 to detect, in a timely manner, restructuring events of MNEs.

This system which is co-ordinated by Eurostat, asks EU Member states to proactively share information and data regarding any potential restructuring of MNEs which is likely to have significant impact on other Member States.

In particular, the purpose of the EWS is:

- a) To provide an early knowledge of MNEs restructuring cases across concerned Member States and agree on methodological treatment by the national data compilers;
- b) To ensure the consistency of European statistics affected by such globalisation events;
- c) To ensure a coordinated timing in the publication of data and revisions;
- d) To ensure a timely, harmonised and interlinked communication to users of national and European statistics.

4.3 Consistency work – Large case units

Many Member States with a significant presence and impact of MNEs on national statistics have established or are about to set up national Large Cases Units (LCUs) or assigned experts to deal with MNE data, to improve the quality and consistency of their data in business and macroeconomic statistics.

Eurostat is continuously supporting this work by organising workshops and training courses and by creating a dedicated space in the Circa BSDG interest group. Eurostat is financing a consortium of Member States (NL, LU, SE, IE and DK) to provide support and guidance to Member States, which are planning to set up or are in the process of establishing an LCU and to facilitate the creation of a network of LCUs. Some Member States have also benefitted from grants to cover the set-up costs and additional efforts. In addition, Eurostat is supporting greater cooperation between the national LCUs and the creation of an LCU network. Building on this, the LCUs network should become the focal point for all the MNE-related activities at EU level e.g. GNI MNE pilots, EWS and profiling.

4.4 GNI MNE pilots

The GNI pilots on multinational enterprise groups were proposed by the group of Directors of Macroeconomics Statistics of the ESS (DMES) and launched in February 2018 by the European Statistical System Committee (ESSC). The objective was to achieve - by the end of December 2019 - an understanding of the reliability of the recording of globalisation in GNI data. The pilots concerned 25 MNE cases selected on the basis of materiality threshold.

The GNI Pilot highlighted the differences in treatments of the economic ownership of goods and services across member states.

There are several reasons for these differences including different methods for production of statistics and differences in the regulations and manuals or the variations of interpretation.

There are also differences in data sources, availability of the information available to the member states and the timing of data.

One conclusion reached from the pilot, was confirmation of the different treatments of the economic ownership of R&D assets. Some member states attribute the economic ownership to the funder (who, in most cases is the Global Decision Centre) and for the majority of countries, the economic owner is the producer of R&D (a subsidiary or affiliate entity).

5. Classification and determination of economic ownership

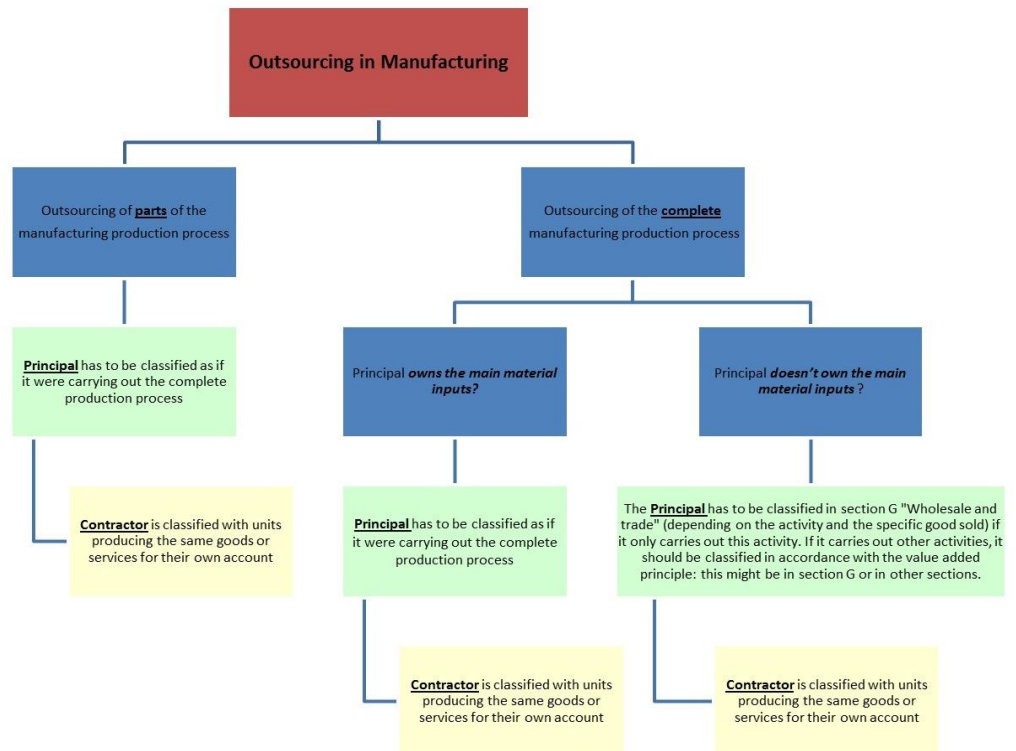
There are different manuals and guidance regarding the classification of economic ownership. The Outsourcing manual states that classification should be based on ownership of materials inputs alone, whereas the

Guide to measuring global production manual opens up for that the classification also should be based on ownership of Intellectual Property. This makes it more challenging for the member states to ensure consistency. The discussion has been taken further into the ongoing NACE-revision.

5.1 Example from the Outsourcing manual

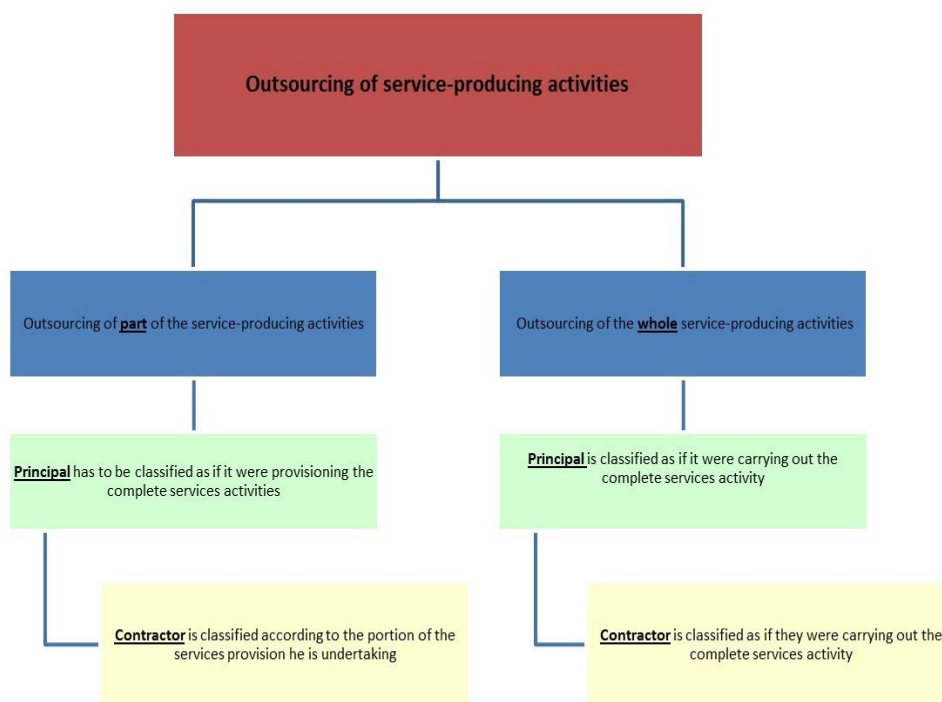
In the Outsourcing manual from 2014 Eurostat gives definitions and rules of classification (according to NACE) for units outsourcing their production of goods and services (diagram 2 and 3).

Diagram 2 Activity classification of enterprises with outsourced manufacturing activities according to the Outsourcing manual



For manufacturing enterprises that are outsourcing the complete production process there is a clear difference between a principal that owns the main material inputs and a principal who does not. A principal who owns the material inputs should be classified as a manufacturing enterprise, while a principal who does not own the material inputs should be classified as a wholesaler. The contractor is always classified with units producing the same goods or services for their own account, with no regard to the proportion of outsourcing for the principal.

Diagram 3 Activity classification of enterprises with outsourced service-producing activities according to the Outsourcing manual



For service producing enterprises there is no difference between a principal outsourcing just a part of the service activities and a principal outsourcing the whole service activity. In both cases the principal should be classified as if it were carrying out the complete service production process. There is a difference for the contractor though. A contractor performing a part of the service production is classified according to the portion of the services he is undertaking (could be the same ISIC as the principal but it could be a different code depending on the proportion). On the other hand, a contractor performing the whole service production should always be classified in the same activity as the principal.

5.2 Example from the Guide to Measuring Global production

As there are many challenges in determining economic ownership of IPPs (Intellectual Property Products) within multinational enterprises (MNEs), the UNECE 2015 Guide to Measuring Global Production includes a decision tree for determining economic ownership of an IPP within MNEs and within global production arrangements.

The tree follows a sequence of steps to determine the ownership:

1. The first step focuses on the ownership relation, distinguishing between units that are part of an MNE and MNEs that are not.
2. The second step looks at whether the unit produced the IPP or not.

3. The third step focuses on the main kind of activity of the unit, trying to distinguish the role of the IPP in the production process. The questions try to distinguish whether the unit is a main IPP producer, is a producer of other goods and services for which the IPP is used in the production process, is a factoryless goods producer based on the IPP, or is a unit for which the main output is IPP related.
4. The last step focuses on any income and expenditure flows related to the use or sale of the IPP.

The decision tree can be found on page 65 in the report (click on the link).

https://www.unece.org/fileadmin/DAM/stats/publications/2015/Guide_to_Measuring_Global_Production__2015_.pdf

5.3 Report on Intellectual Property Products

In January 2020 the Eurostat-OECD Task Force on Land and other non-financial assets published guidelines on how to compile estimates for IPPs. The definition of IPPs according to the report is:

Intellectual property products are produced non-financial assets that are the result of research, development, investigation or innovation which lead to knowledge that can be marketed or be used in production. Examples of IPPs are R&D and computer software.

According to the report the importance of IPPs in economic activity has increased significantly over recent years. This has led to structural and qualitative changes in the operation of the economy, which has increased the importance of obtaining comprehensive, consistent and comparable data on IPPs across countries.

The report suggests four different options in how to treat economic ownership for IPPs:

- Option 1: The unit that produces the IPP is the economic owner
- Option 2: The legal owner is the economic owner
- Option 3: The head office is the economic owner
- Option 4: The unit that uses the IPP is the economic owner

The authors of the report did not conclude on what option to recommend, but were in favour of either option 2 or 3. They recommended further investigation of the issue of economic ownership of IPPs. The four options should be further explored with their pros and cons, not only looking at the impact of measurement of stocks and flows with regard to IPPs, but also assessing the possible impact of these options with regard to other statistics. Furthermore, it should be assessed what type of data would be needed to apply the preferred option.

One conclusion to be drawn is that the complexity of IPPs results in that there is unlikely to find uniformed one size fits all methods. For example within one Pharmaceutical company, there may be several options that apply depending on the drug being produced and sold.

5.4 Discussion on IPPs

Sometimes outsourcing arrangements includes patents or specialized design, which can be seen as IPPs. If a service producing enterprise has outsourced a part of its production to a subcontractor in another country and the subcontractor needs a patent owned by the principal to produce the service, there are different solutions for how to decide economic ownership of the patent. According to the OECD/Eurostat report on IPPs (section 4.3) the economic ownership in this case could either lie with the principal (option 1, 2 or 3) or with the contractor (option 4)¹.

Some countries have several enterprises (including Special Purpose Entities) that just owns and manages patents while the production connected to these patents is taking place in another country. If the economic ownership is transferred to the enterprises/countries with the actual production (option 4), what happens with the taxes connected to the patent, paid by the legal owner? Should the taxes in this case also be transferred to the producing enterprise? It can be misleading to transfer taxes, since they tend to vary a lot between countries.

IPPs within a MNE that are owned by a SPE in another country can be recorded in the national accounts in one of two different ways:

1. The SPE has economic ownership and is assumed to be selling services to the national enterprise. This will result in a flow of services that will affect GDP positively in the country where the SPE is located.
2. The national enterprise gets economic ownership of the patent by making an investment. The SPE has a financial claim on the national enterprise which is recorded in the same way as for financial leasing (the actual payment is split between interest and amortisation).

¹ Option 1: The unit that produces the IPP is the economic owner

Option 2: The legal owner is the economic owner

Option 3: The head office is the economic owner

Option 4: The unit that uses the IPP is the economic owner

6. Swedish initiatives

Statistics Sweden has been working with globalisation issues for many years but in recent years, the work has been intensified. A number of initiatives to better understand and measure complex MNE structures and outsourcing arrangements have been put into place as described below.

6.1 Large case unit

The Swedish large case unit was created already in 2004 with the aim to lower the burden for respondents and get better quality in reported data from the largest enterprises in Sweden. In recent years, the focus for the LCU has shifted more towards profiling. The Swedish LCU has been involved in the Eurostat profiling grants, EWS, GNI MNE pilots and the Eurostat consistency work with LCUs.

6.2 Profiling

Statistics Sweden has been working with profiling for about five years and has participated in the work with European profiling during this time. Methods for manual and automatic profiling as well as consolidation has been developed nationally. The profiling work has built competence in the area of globalisation and the complex structures of MNEs. Sweden have applied for grants to take part in the future EU profiling process, where complete coverage of the most important MNEs in a three-year frequency is the aim.

6.3 Paper on globalisation

In 2017 a work with the aim to describe globalisation issues and their effects on different surveys started at Statistics Sweden. The main focus was to harmonize the treatment of specific enterprise cases with outsourced production among the different statistical areas. In the paper different "type cases" was identified. The problems concerning globalisation and outsourcing were described and some solutions were suggested. Since this topic has been discussed a lot internationally during recent years the paper had to be revised a number of times and was not finalized until December 2018. One of the conclusions in the paper was that the principle of economic ownership should be implemented to a larger extent than before in the surveys who serves as sources to the national accounts.

6.4 Harmonizing questionnaires for SBS, PRODCOM, STS and ITSS

As a result of the recommendations in the Globalisation paper mentioned above, staff from SBS, PRODCOM, ITSS, LCU and NA formed a working party with the aim of harmonizing the variables concerning outsourcing of production and merchanting in 2019. The group has taken regulations and manuals into account as well as user (mostly NA) needs. In late spring 2020, the work reached a point where the variables were almost set. In autumn 2020, the plan is to go further with changing the definitions and instructions. The new/changed variables are planned to be implemented in 2021.

One conclusion so far is that harmonization work is difficult and time consuming, but also gives the involved parts the benefits from learning more about each other's domains. The group has also been forced to question the purpose of all variables and to view them from a respondent's perspective, which is always very useful.

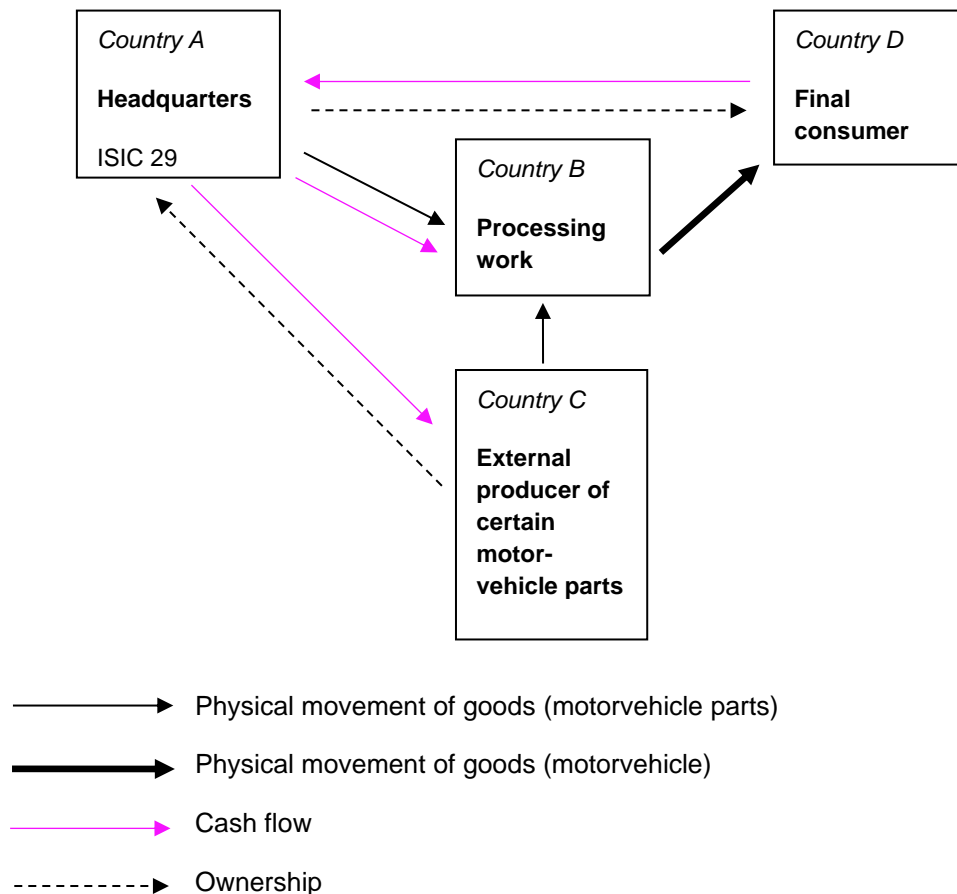
6.5 Paper on the Swedish position on globalisation

There exist plans of finalizing a paper on the Swedish position on globalisation. The aim with this paper is to clarify what the official position in relation to globalisation and to the recommendations (for example the Outsourcing manual) should be for Sweden. The paper is intended to serve as support to different statistical domains when they come across problems related to globalisation. It will also be helpful to attendees at international meetings where globalisation is an item on the agenda. The work was initiated some years ago and has now started up again, considering the ongoing NACE revision.

6.6 A Swedish outsourcing example

In this example, a Swedish multinational enterprise (MNE X) sends goods for processing to third countries. In diagram 4 we describe how these transactions are recorded in the national accounts and the challenges connected to this

Diagram 4: Recording of goods for processing sent to other countries in National accounts



MNE X manufactures motor vehicle parts in Sweden (Country A). These parts are exported to Country B where the finished product is assembled by a foreign affiliate. The headquarters in Sweden also buy other parts from a third country (Country C). The parts are needed for the manufacturing of the final product. These parts are sent directly to the foreign affiliates (Country B). The companies that manufacture them are not part of the MNE X group. The finished products (motor vehicles) are not exported back to Sweden but sold directly abroad. MNE X in Sweden (Country A) owns the material inputs and the IPPs all the time until the finished product is sold. According to the Outsourcing manual the industry classification of MNE X in Sweden should therefore be ISIC 29. According to the UNECE Guide to measuring global production the economic ownership lies within the Swedish MNE X. And the sale of the

final product is registered as output and exports of the Swedish economy.

One problem that occurs in the Foreign trade statistics in goods and services in Sweden is that the value of the exported parts is reported as the value of the parts, i.e. without the processing value and at a much lower value than the finished product. Nor the value of the other parts imported from third countries used in the processing, neither the costs of the processing are included in the import figures in the trade statistics. However, the finished product is invoiced from Sweden and the full value of the finished product is reported in the SBS as a production of motor vehicles.

The Large Case Unit at the NSI has been in contact with the enterprise to obtain data regarding the cost of processing (Country B) and the parts imported directly from third countries to Country B separately. The imports and intermediate consumption figures are adjusted accordingly. That means that the export data in country A show the value of the final vehicle sold to the final customer outside the country A. The import and the intermediate consumption data in country A include the import of a processing service and the purchase of other motor vehicle parts from third countries sent to country B.

7. UK initiatives

7.1 ONS's Business Profiling Team

ONS's Business Profiling team is situated in the Business Registers unit and has been running since the late 1990's. The team's aim is to ensure that the largest and most complex businesses are correctly structured on ONS's statistical business register called the Inter-Departmental Business Register (IDBR). It was heavily involved in the development of the European Profiling Programme since its development in 2014 and participated in all of the EU profiling grants. Business Profiling Team work closely with the Large Case Unit in order to gain basic understanding of globalisation issues and how/why MNE's may structure themselves with regards to these activities.

7.2 Large Cases Unit

ONS has recently established a Large Cases Unit which takes profiling a step further and is responsible for ensuring the correct survey data is collected from the large and complex MNEs. It started as a pilot in 2018 and has now developed into a small but important business as usual team.

The main difference between the LCU and Business Profiling team is the LCU collects, analyses and ensures consistency of the survey data. Profiling of the business is the first step of this process, the LCU then carries out the end to end process of collating and validating the data from the most complex MNEs. LCU currently sit within the Business Register area however has very close working relationships with

National Accounts and Balance of Payments colleagues. This allows potential large changes to be discussed in depth effectively before any changes are made.

In order to gain a better understand of these large complex MNEs, LCU have adopted an account management approach to a specific number of MNEs. The team build strong working relationships to help gain a better understanding in how the company operates as well as gain knowledge of any potential globalisation production/operational models. LCU utilise tailored questionnaires and data collection methods, to collect specific or additional data variables regarding individual complex business models operated by these MNES which may include contract manufacturing and toll processing arrangements.

Although the ONS recognise the many benefits of operating an LCU, there are still many practical challenges to overcome. One of these surrounds treatment and collection of data relating to the owner of Intellectual Property. As discussed in 4.3/4.4 above the complexity of IPP and how this may differ per MNE or even per product by a single MNE makes it very difficult to use a uniformed treatment. i.e. a single pharmaceutical company may operate under all four options (explained in 4.3) depending on which individual drug is being manufactured. The UK's LCU have also found it challenging to confirm the ownership of IP with the businesses themselves, both due to the complexity of the IP's arrangements or the sensitivity of this topic.

7.3 EWS and GNI Pilot and Globalisation Work

The LCU has played an active role in Eurostat's Early Warning System, raising any newly identified issues around economic ownership and treatment of branches. LCU were the team responsible for taking part in the GNI Globalisation Pilot and will likley be heavily involved alongside our National Accounts colleagues in the GNI Globalisation Reservation.

8. Conclusions

As well described in this paper, determining the economic ownership of goods and services in order to collect coherent and consistent data for statistical needs, is still very challenging for most statistical bodies. As described above, recent initiatives, sharing of best practice and the release of additional guidance is helping tackle this issue, however, applying such theories practically is difficult and there is still lots to learn.

Initiatives such as the European Profiling Programme and the adoption of LCU's have already provided many lessons at how to best approach such challenges. One such lesson, is the importance that needs to be placed on good communication and collaboration. Administrative data, accounts information can tell us a great deal about MNE's, however very good and detailed discussions with the business itself is essential to understand these complex organisations models.

It is key to speak to the appropriate personnel within the businesses for example to identify those that have a good understanding of the group operations and who could answer questions regarding the flows of goods and services. The UK's experience is that financial controllers and Tax directors are often those that are most knowledgeable.

It is also vital that when speak to the business, one takes into consideration the business accountants viewpoint. ONS's LCU recognise the importance of having a qualified accountant who is able to translate the statistical needs into businesses accountants. For ONS, the accountant has over the last several years, gained a great understanding of National Accounts and Balance of Payments methods and concepts and has translated/mapped these to business accounts to ensure ONS are asking the right information from the MNE's.

Communication internal to NSIs, across business statistics and national accounts is also key. Another big challenge of this work is that such issues touch on all economic statistical domains including Business Statistics and National accounts. Representatives from data collection areas, STS, SBS, Prodcorn, Prices, Trade, to name just a few, need to work together to ensure these MNES are viewed and treated consistently.

As this is a global issue, it is one that needs to be tackled at a international level and cannot be tackled in isolation. Therefore, data and information sharing across countries is essential in order to fully understand global operational models and to apply a consistent treatment on an international basis.