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Country experiences in dealing with global production in economic statistics

Estimating Foreign Trade According to 2008 SNA/BPM6Prepared by Eurostat¹*Summary*

One of the fundamental changes between SNA 1993/BPM5 and SNA 2008/BPM6 is the treatment of goods sent abroad for processing. In SNA 1993/BPM5, such goods were shown as exports on being sent abroad, and recorded as imports on return from abroad, at a higher value as result of the processing. This method was known as the gross recording method, and effectively a change of ownership was imputed so that international trade figures represented an estimate of the value of the goods being 'traded'. The SNA 2008/BPM6 does not impute a change of ownership, but rather shows only one entry; an import/export of the processing service concerned. The practical consequences were discussed by a Eurostat task force and resulted in the Manual on goods sent abroad for processing. During meetings of the task force issues related to foreign trade reported by non-residents came forward. After collecting information on Member States' activities on this topic, an expert group, chaired by Eurostat, addressed the issue and came up with a number of recommendations. The paper gives an overview of both issues; goods sent abroad for processing and foreign trade reported by non-residents.

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I. Introduction

1. One of the main changes introduced in the updated System of National Accounts (2008 SNA) is the treatment of goods sent abroad for processing. Under the 1993 SNA, a change of ownership was imputed for goods sent abroad for processing, even when the financial flows indicated that there was no transfer in ownership of the goods. Under the 2008 SNA, goods sent abroad for processing must be recorded on a strict change of ownership basis. The updated European System of Accounts (ESA 2010) is consistent with 2008 SNA (as well as with BPM6) concerning the conceptual approach for recording goods sent abroad for processing. To consider the implementation of the new standards, Eurostat set up a task force, so that reliable and comparable statistics can be produced. The recommendations and conclusions of the task force were included in a manual (Eurostat, 2014).

2. During meetings of the task force mentioned above, also adjacent issues were discussed like goods under merchanting, quasi-transit trade, goods for repair and re-exports. Especially during discussions on the topic of quasi-transit trade it appeared that some countries experienced big problems with foreign trade reported by non-residents. This topic was discussed at two workshops held in Prague in 2012 and 2013. The Directors of Macro-Economic Statistics agreed to address this issue. After collecting Member States' practices using a questionnaire, it became clear that there is a need for additional practical recommendations in order to help compilers of national accounts and balance of payments statistics to follow the principle of change of economic ownership as required by ESA 2010/ 2008 SNA/BPM6. A small expert group, chaired by Eurostat, addressed the issue and came up with a report containing a number of recommendations.

3. In this paper both topics, the treatment of goods sent abroad for processing and foreign trade reported by non-residents are treated. How should these transactions be registered in the national accounts framework theoretically, how can it be done in practice, which sources are available, etc.

4. In this paper national accounts and balance of payments statistics are mentioned in one breath (NA/BoP). With the implementation of 2008 SNA and BPM6 the guidelines are fully consistent with each other. However, regarding data transmissions there is one exception. In the European Union, Member States have to deliver BoP data to Eurostat according to the national concept as well as according to the Community concept. Quasi-transit trade should not be excluded for the Community concept. In the latter case, the item 'branding' is included in the goods account to adjust for the difference between the value of the goods imported and re-exported from the compiling economy.

II. Goods sent abroad for processing

5. The new SNA states (paragraph A.3.155): "The 2008 SNA recommends that imports and exports should be recorded on a strict change of ownership basis. That is, flows of goods between the country owning the goods and the country providing the processing services should not be recorded as imports and exports of goods. Instead the fee paid to the processing unit should be recorded as the import of processing services by the country owning the goods and an export of processing services by the country providing it."

6. In the 1993 SNA (as well as in ESA 1995 and BPM5) goods sent abroad for processing were shown as exports and after processing recorded as imports at a higher level as a result of the processing. This was known as the gross recording method. A change of ownership was imputed so international trade figures in national accounts and balance of

payments represented an estimate of the value of the goods being 'traded'. Output and intermediate consumption both in the country of the principal and the country of the processor were inflated by this method.

7. The different ways in which processing deals within the country (no imputation of change of ownership) and abroad (imputation of change of ownership) were dealt with previously, was one of the weak elements of this treatment.

8. The 2008 SNA does not impute a change of ownership but rather shows one entry – an import/export of the processing service. This recording is more consistent with the institutional records and associated financial transactions. It does however cause an inconsistency with the International Merchandise Trade Statistics (IMTS). The IMTS, based on the physical cross border flows, will continue to show the gross value of the exports for goods for processing and imports for returning imported processed goods.

A. Reconciling national accounts and international merchandise trade statistics

9. In the Manual on goods sent abroad for processing, it is recommended that the conceptual differences between IMTS and the 2008 SNA should be illustrated with a bridge table showing the reconciliation of IMTS sources data and international trade in goods data used in national accounts and balance of payments. This also meets the requirement (in ESA 2010) to publish goods sent abroad for processing as supplementary items. It is recommended that countries produce a reconciliation table setting out in detail how the IMTS source data is adjusted to convert international merchandise trade statistics to trade in goods on a national accounts/balance of payments basis. An example of such a reconciliation table is given below.

Table 1

Reconciliation between International Merchandise Trade statistics and Trade in Goods on a national accounts basis

Merchandise Trade statistics from IMTS source	Exports	Imports
– Goods sent abroad for processing	Deduct	n/a
– Goods returned from abroad after processing	n/a	Deduct
– Goods sent abroad after processing in compiling economy	Deduct	n/a
– Goods received from abroad for processing	n/a	Deduct
+ Goods sold abroad after processing in other economies	Add	n/a
+ Goods acquired in other economies for processing abroad	n/a	Add
+ Net exports of goods under merchanting	Add	n/a
= Trade in goods on a national accounts basis		

Where n/a = not applicable

B. Estimation of the processing fee

10. While the gross cross border flows before and after processing should be excluded from national accounts/balance of payments statistics, the value of the manufacturing service ('processing fee') should be included in the imports/exports (and the rest of the accounts). The value of manufacturing services on physical inputs owned by others should not be estimated as the difference between goods sent abroad and returned after processing. Even where reliable data exists on the values of goods sent abroad for processing and returned after processing, the value of the processing service cannot simply be assumed to

be the difference between the values (BPM6 paragraph 10.70). Instead, the value of exports and imports of manufacturing services should be collected as part of existing balance of payments or international trade in services data collection. The results should be compared with the value of goods sent abroad less returned after processing, to check that differences can be explained by holding gains/losses and the inclusion of overheads (such as marketing and financing included in the finished good price). If possible, this validation should be done at enterprise level.

C. Impact on input-output tables

11. 2008 SNA paragraph 14.37 states: "The traditional view of an input-output table or a supply and use table was that it portrayed the physical or technological process of production." However, according to 2008 SNA, a change of ownership is no longer imputed where goods are sent abroad for processing, when the principal retains ownership of the goods. As there is no sale and purchase of goods, the imports and exports of goods will be in line with the underlying financial transactions.

12. 2008 SNA paragraph 14.42 describes the impact on SUT tables: "Measuring goods for processing by the processing fee instead of by the full value of the processed goods changes the nature of input-output coefficients. They no longer represent the technological structures of an industrial process but an economic process." Changes in coefficients may result not from changes in technology but from changes in goods processed on own account and processed on behalf of another unit. The consequences for supply and use tables and input-output tables can be extremely significant and change many of the traditional perceptions about what information is conveyed in these tables.

13. The increased volatility of input to output ratios will affect the ability of short-term indicators of value added to be proxied by turnover measures. Traditional indices such as the Index of Production, which assume a stable relationship between inputs and output, must be monitored carefully for step changes in production measurement, when the company moves from a gross measurement basis to a net one because of a move to toll processing. This is an issue which affects domestic as well as international trade.

14. A product breakdown of goods sent abroad for processing and returned after processing, for both outward and inward processing is required for SUT balancing. This breakdown is required to adjust the imports and exports figures from IMTS and it is recommended that the product breakdown be based on IMTS data where possible.

D. Implementing issues

15. IMTS are generally the starting point for the compilation of trade in goods statistics in national accounts and balance of payments. In the European Union, customs declarations (Extrastat) and Intrastat returns are the basic source of data for trade in goods statistics. Extrastat and Intrastat are broadly in line with IMTS 2010, with some special features, like the use of the country of consignment in Intrastat and the use of the special trade system in Extrastat (that excludes goods that enter EU Customs warehouses of 'free zones' from imports). IMTS, Concepts and Definitions 2010 (paragraph 1.20) recommends: "... that in all cases goods for processing, as well as goods resulting from processing (compensating products in customs terminology) are to be included in the merchandise exports and imports of the countries at their full (gross) value.

16. In the EU certain types of trade are identified by 'nature of transaction codes'. (NoT). These NoT codes are primarily used to reconcile IMTS figures with balance of payments and national accounts, therefore the information collected can be source information to

identify goods for processing where there is no change of ownership needed for national accounts and balance of payments statistics. A two digit coding system for Nature of Transactions is used to differentiate between types of trade. Unfortunately, the collection of only the one-digit code is mandatory in all EU Member States. Moreover, the collection of Nature of Transaction code is not mandatory within the framework of Extrastat and so data is only available where national Customs authority collects this information on the customs declaration.

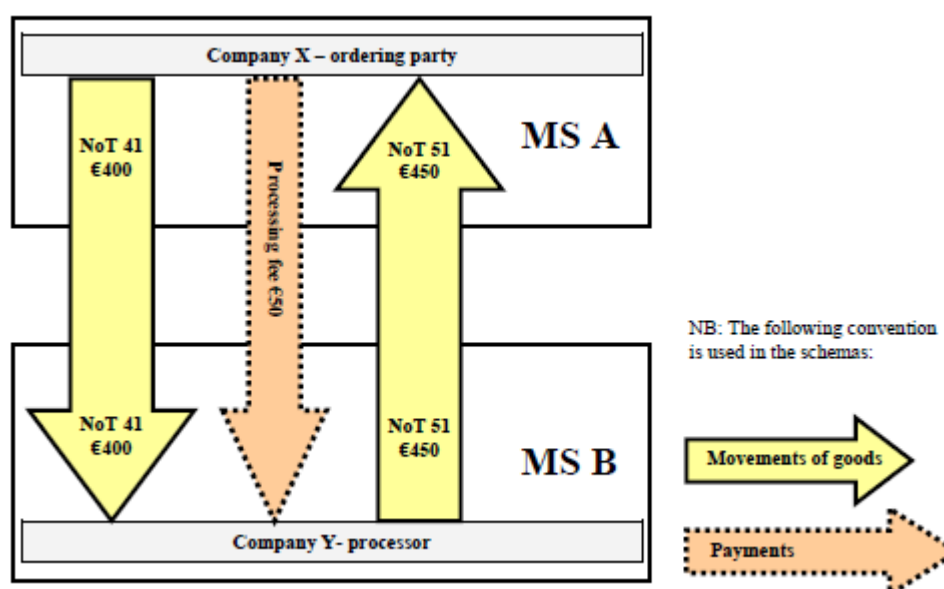
Table 2

The Nature of Transaction code concerning goods sent abroad for processing

A — 1 digit	B — 2 digit
4. Operations with a view to processing under contract (no transfer of ownership to the processor)	1. Goods expected to return to the initial country of export 2. Goods not expected to return to the initial country of export
5. Operations following processing under contract (no transfer of ownership to the processor)	1. Goods returning to the initial country of export 2. Goods not returning to the initial country of export

17. Figure 1 shows Standard case of goods sent abroad for processing and returned after processing. Company X – from country A – sends goods worth 400 euro to a company Y in country B for processing. Company X is the owner of the goods. Company Y is receiving 50 euro for work carried out. The processed goods are delivered back to company X, now with a value of 450 euro.

Figure 1

Standard goods sent abroad for processing case

18. This example illustrates how NoT codes 41 and 51 can be used to exclude goods sent abroad for processing from the IMTS cross-border flows where there is no change of ownership. In this standard case, NoT codes can be used to identify the goods being sent abroad by company X (NoT code 41) and then returned from country Y (NoT code 51). If

completed correctly, these codes allow the compiler to collect the value of goods sent abroad for processing and the value of goods returning from abroad after processing (where there is no change of ownership). The estimates of total goods for processing can then be deducted from the IMTS aggregates to derive national accounts and balance of payments estimates of trade in goods in line with the new international standards.

19. The difference in the value of the goods sent abroad for processing and returning from abroad after processing, gives an estimate of the value of the processing services (manufacturing services on physical inputs owned by others). However, the value of the processing service is not necessarily the same as the difference between the goods sent for processing and the value of goods after processing. It is therefore recommended that the value of the processing service is also collected directly from the trader (outward processing) or the processing service provider (inward processing).

20. Besides the standard case described above, there are numerous other possibilities with associated data source challenges. The goods can be sold in the country where the processor is located, the goods can be sold to a third country, there can be more than one country involved in the processing, etc. In the Manual on goods sent abroad for processing these cases are described in a separate annex.

21. In case only one digit NoT codes are available (or no NoT codes at all) other sources have to be consulted. Existing (business or balance of payments) surveys could be amended. Often the principal and the processor belong to the same multinational enterprise. The analysis of flows concerning goods sent abroad for processing could be executed by large and complex enterprise units as more and more national statistical institutes are putting in place.

III. Foreign trade reported by non-residents

22. The subject of foreign trade reported by non-residents should be distinguished from goods sent abroad for processing. Although discussions on the first topic started in the Task Force on Goods sent abroad for processing, it concerns two different issues. For both issues there is an absence of change of economic ownership while the goods are moving across the borders (and thus are recorded by primary data sources). In other words, for both issues, the initial data source includes movements of goods across borders that cannot be considered as exports or imports of goods (under 2008 SNA/BPM6). Nonetheless, there is a difference between goods sent abroad for processing and the issue discussed here. In the case of goods sent abroad for processing there is a relation to manufacturing processes in the compiling economy because a resident unit provides services (or is a principal). Whereas the issue discussed in this section is mainly about non-resident traders shifting their goods from the production place to final customers regardless of borders.

A. Introduction

23. The national accounts should record the exchange of goods, service and assets between institutional units in the form of transactions (2008 SNA, paragraph 1.7). Imports and exports of goods and services, as part of the rest of the world accounts, should cover transactions between resident and non-resident institutional units (2008 SNA, paragraph 2.130). To be more precise, in the NA/BoP the accounts are not concerning the physical movement of goods across borders. Goods just passing through a country (transit trade) are excluded from the general merchandise of the territory of transit (BPM6, paragraph 10.22a).

24. In the European Union – but this could be an issue in every customs union – the term 'quasi-transit trade' is used for: "goods imported into a country from a non-EU country, cleared through Customs for free circulation within the EU, and then dispatched to a third country in the EU" (ESA 2010, paragraph 18.28). As the term quasi-transit trade indicates, these flows should be excluded from the NA/BoP of the country concerned as in case of simple transit trade.

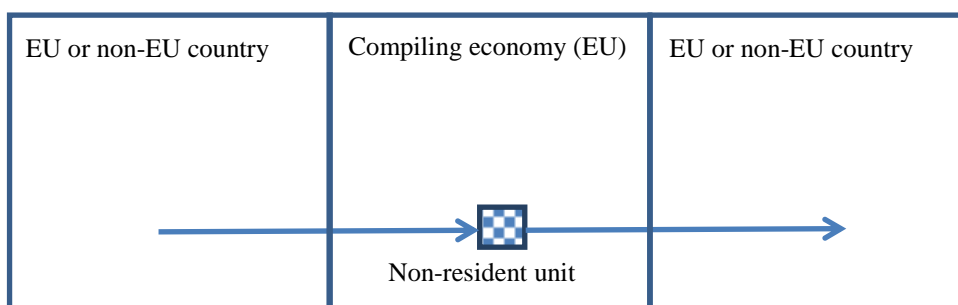
25. However, the issue of foreign trade reported by non-residents is not limited only to the trade with non-EU countries but could happen also within the EU (goods arriving from one Member State and dispatched to another by a non-resident). For this phenomenon within the EU, there was no term agreed at the time of preparation of the Manual on goods sent abroad for processing. That is why there has been a terminology inconsistency in the past. In the manual, the phenomenon was introduced under the term 'non-resident transit trade'. In other documents the term 'similar operations to quasi-transit trade' was used. In the final report of the expert group it is recommended to treat both described phenomena (either from/to non-EU or within the EU) under the term 'quasi-transit trade', since there is no difference in economic sense of both issues. There may be only practical differences.

26. Even though physical movement of goods is not relevant for the compilation of foreign trade in NA and BoP, generally the main data source used for the compilation is International Merchandise Trade Statistics (IMTS) which are based on cross-border movements. IMTS figures, physical movement of goods, were traditionally used as a proxy for the change of ownership between residents and non-residents, i.e. estimation of foreign trade in NA and BoP. However, a single market in the EU with its common VAT system² and highly harmonised data collection of IMTS³, reduces the link between the physical movements of goods and the change of ownership. Foreign traders can trade freely within each Member State's economy or across all Member States. Therefore, there may be cross-border movements of goods without any change of economic ownership between residents and non-residents and also trade between residents and non-residents without cross-border movements.

27. Simple diagrams can help to explain the issue.

Figure 2

A non-resident unit importing and exporting to and from the compiling economy



28. A non-resident unit imports/exports⁴ goods to/from the compiling economy (see figure 2). This non-resident unit is registered in the compiling economy for VAT but has no

² VAT Directive 2006/112/EC (for country specifics; see country legislation).

³ In EU: International Trade in Goods Statistics: ITGS.

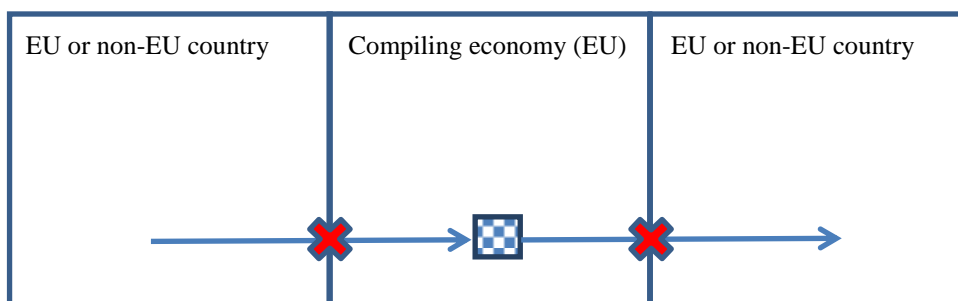
⁴ In this case, the terms 'imports' and 'exports' mean physical movement of goods across the borders (inflow and outflow of goods into/from the economic territory of the compiling economy). It is not used in the sense of national accounts definitions of imports and exports.

physical presence in the economy concerned; it has no employees, no premises and no production activities. Its activities are limited to trading⁵. The goods could be stored in the compiling economy, by renting these services from resident units. If an entity provides these activities itself, it is more likely a resident unit. An important issue is that the value of the goods leaving the country often differs substantially from the value of the goods entering the country i.e. by trade margins or holding gains/losses. Whatever the reason for the difference between the two values, it is not output of the compiling economy and so cannot be recorded as such.

29. Although in the case described above there is a physical movement of goods across borders, there is no transaction between a resident and a non-resident unit, no change of economic ownership. Since the physical movement across borders is registered in the IMTS (if according to Community concept), for the national accounts as well as for the balance of payments (according to the national concept, not according to the Community concept), these flows should be excluded, that is: treated as transit trade (see figure 3).

Figure 3

Excluding IMTS data for national accounts/balance of payments

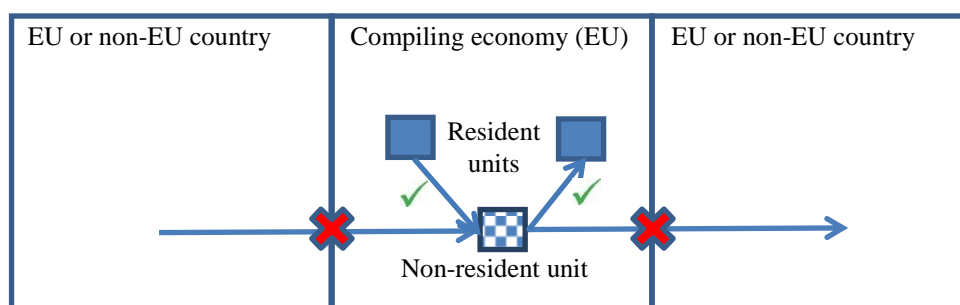


30. In practice the situation can be more complicated. Residents and non-residents may trade with each other within a compiling economy. In these cases, no cross-border movements of goods occur, so these transactions are not recorded in IMTS. Therefore, they are not taken into account when compiling foreign trade using exclusively IMTS data sources.

31. For a better understanding of the issue, see figure 4. The foreign trader (=non-resident unit) can purchase/sell the goods from/to a resident unit. These transactions between a resident unit and a non-resident unit **should be included** in the national accounts and the balance of payments because there is actually a change of economic ownership between a resident and a non-resident.

⁵ Possibly, the foreign trader concerned may be represented by a tax representative, who would act on behalf of the trader. In practice, it is necessary to distinguish between transactions related to the own activity of a tax representative and those of the foreign trader. In some countries separate VAT returns may be submitted, in some there may be only one document incorporating activities of tax representative and its deputised customers.

Figure 4
A non-resident unit trading with resident units



32. To resume, the impact of single market rules on the compilation of foreign trade in the EU for the NA and BoP can be divided into two separated, but complementary, issues: First, there are movements of goods recorded in IMTS that imply no change of ownership, i.e. cross-border transactions reported by non-residents. Cross-border transactions reported by non-residents should be excluded from imports and exports of goods in NA and BoP⁶ (see the red **X** crosses in figure 4). Second, there are transactions between residents and non-residents in the compiling economy (i.e. change of economic ownership occurs) without any cross-border movements recorded in the IMTS. These transactions should be included into imports and exports in NA and BoP (see the green **✓** marks in figure 4). In such cases, for BoP purposes, as well as for the compilation of European aggregates (e.g. EU and euro area) it is of importance to establish the country of residence of the non-resident to establish the geography of the transaction.

33. In the sections below the recommendations of the expert group are displayed. Although the focus is on the situation in the European Union (regarding data sources, regulations, etc.) the recommendations could be of use for other customs unions as well. The general recommendations are specifically focussed on the treatment of cross-border flows reported by non-residents and their transactions with residents in the compiling economy. Subsequently there are sections with recommendations on the recognition of non-resident units, the exclusion of cross-border movement of goods reported by non-resident units and the inclusion of transactions of non-resident units with resident units, when a change of economic ownership occurs without cross-border movements. Finally, there are some recommendations on so-called mirror transactions; residents in the role of non-residents registered for VAT in other Member States.

⁶ There may be various reasons why a non-resident physically moves the goods into/out of the territory of the compiling economy. That is why the Nature of Transaction reported by non-resident units may take a wide range of codes. Nonetheless, no matter what the reason (NoT code) is, the cross-border movement of goods itself reported by any non-resident should be excluded from exports and imports in NA/BoP. Here are some examples of reasons for cross-border movements of goods by non-residents:

- a) storage of goods in a distribution centre in the compiling economy with a subsequent outflow of goods (quasi-transit trade);
- b) handover of goods for processing (provided by a resident processor) with subsequent handover of processed goods back to the non-resident principal who sells the goods in the compiling economy or abroad (in practice, the reported NoT code may not be related to goods sent abroad for processing);
- c) trade with the goods in the domestic market of the compiling economy (i.e. sales following the inflow of goods or purchases preceding the outflow of goods in/from the territory of the compiling economy).

Example b) shows that the issue of foreign trade is related also to the issue of goods sent for processing (since it affects the collection of primary data – IMTS) but they should not be equated.

B. General recommendations

34. R1. *The data on the physical cross-border movements of goods only can serve as a starting point for the compilation of NA/BoP imports and exports. Because of the strict application of the change of economic ownership principle in ESA 2010/BPM6 the IMTS data need to be adjusted.*

35. R2. *Cross-border movements of goods reported by non-resident units⁷ into IMTS have no relevance for the reporting economy from the NA/BoP perspective. When compiling foreign trade figures for NA/BoP these physical flows should be **excluded** as there is no change of economic ownership.*

36. R3. *Transactions of non-resident units with resident units, when a change of economic ownership occurs, should be **included** when compiling foreign trade figures for NA/BoP.*

37. R4. *Every entity (EU or non-EU) can have a registration for VAT purposes in every Member State. Sole registration for VAT (and/or assignment of an EORI⁸ number) does not imply residency according to NA/BoP concepts in the country of registration.*

38. R5. *In every EU Member State non-resident units may carry out transactions affecting compilation of foreign trade figures in NA/BoP. The magnitude of the impact can differ but every Member State should examine this issue.*

C. Recommendations on the identification of non-resident units

39. R6. *In order to compile foreign trade according to NA/BoP concepts (ESA 2010/BPM6), non-resident units must be identified in the relevant data sources. The way non-resident units can be identified depends on the available data source and varies from Member State to Member State. Main data sources for identifying non-resident units are VAT register, Business register, Tax register, EORI register and employment data⁹. In general, one cannot rely on one source only. Especially in the case of units with substantial impact, several sources should be combined to decide whether an entity is resident or non-resident according to NA/BoP concepts¹⁰.*

40. R7. *In IMTS data sources, units are reporting their transactions under VAT number (for Intrastat) and EORI number (for Extrastat). Each unit has a different VAT*

⁷ These units may or may not be registered for VAT purposes only.

⁸ EORI number – Economic Operator Registration and Identification number.

⁹ In some cases, not to be included in these data sources may imply non-residency.

¹⁰ When identifying non-resident units it is not sufficient to simply identify them as non-resident. For BoP purposes it is paramount to also identify the specific country of residence of each non-resident unit. This information is essential to compile the EU aggregates as well as the BoP current account with a correct geographical breakdown at the national level.

number in each Member State where the unit is registered for VAT purposes¹¹. The EORI number is unique for each unit across the EU¹².

41. R8. As for Intrastat, in some Member States non-resident units can be identified by a special VAT identification number¹³, nonetheless, verification by other data sources is usually needed.

42. R9. In the case of Extrastat, the country prefix of the EORI number could be the starting point for the identification of residency of the unit. However, as explained in footnote 14, this rule cannot be applied without further verification due to units seated outside the EU and country specifics in legislation and practice. There is also a question of identification of the owner of goods in the customs declaration, i.e. which unit stated in different fields of the customs declaration for each cross-border transaction indicates the unit with the right to treat the goods as an owner¹⁴.

43. R10. Nature of Transaction (NoT) codes may also be helpful for the identification of transactions reported into IMTS that are conducted by non-resident traders in the compiling economy¹⁵. In some Member States a separate national NoT code is used for acquisition or dispatch of goods by companies registered for VAT only.

44. R11. In VAT data sources, units submit their VAT return under their VAT number issued in the Member State where the VAT return is submitted (i.e. in the domestic economy where the taxable supplies were provided/received).

45. R12. Non-resident units can appoint a tax representative¹⁶ that fulfils the VAT requirements. In some Member States this is obligatory. VAT returns of tax representatives usually distinguish between the representative and the companies represented.

¹¹ Each VAT number has a country prefix of the country of registration (not the country of residency of the unit). Therefore, the country prefix of the VAT number cannot help with identification of non-resident units. Each unit (if it is a provider of statistical information for Intrastat in Member State A) reports its cross-border transactions related to Member State A under the VAT number issued in that Member State. For example, if a unit has a VAT registration in both states (on both sides of the border) the export is reported under one VAT number (country of dispatch) and the import under another VAT number (country of arrivals), even though it is still one and the same unit.

¹² Each unit receives its EORI number in the Member State of residency. In case of units seated outside the EU, they can apply for EORI registration in one (arbitrary) Member State. Each EORI number has a country prefix at the beginning of the country of registration. Therefore, there may be non-resident units (seated outside the EU) with EORI number with a country prefix of the domestic economy. For that reason it is not sufficient to identify a non-resident unit only 'technically' by the country prefix in the EORI number and additional data sources are needed.

¹³ Very often there is a specific tax authority office where foreign traders apply for registration for VAT. For more information, see the Vademecum on VAT obligations.

¹⁴ Custom declaration contains many data elements (Importer/Exporter, Declarant and Representative). Usually, for the IMTS the data elements Importer or Exporter is essential but they are not necessarily owners of the goods. Since a declarant is usually the unit on whose behalf (and in whose name) a representative acts and the VAT is declared in the customs declaration on its behalf as well, a declarant may seem to be closest to the owner status. Nonetheless, most frequently the Importer/Exporter and declarant is one and the same unit.

¹⁵ However, in any case no matter what NoT a non-resident reports in IMTS, its cross-border transactions are not relevant to the compilation of NA/BoP for the compiling economy.

¹⁶ Similar issues arise with trade reported by resident *commission agents* who act as intermediaries between a principal – who is the owner of the goods – and a purchaser of the goods. In case the principal is a non-resident who imports goods into the compiling economy through the commission agent (imports in IMTS are reported under the VAT number of the resident commission agent), the

46. R13. In some countries, VAT groups exist. In such cases, there are many legal units integrated under one VAT number. In general, members of a VAT-group are residents of the Member State where the VAT group is registered.

47. R14. It is recommended to investigate non-resident trader activities in the domestic economy at least once a year to check whether significant changes have occurred.

48. R15. In specific, substantial, cases it can be necessary to contact individual non-resident merchants or their VAT representatives, or it may be helpful to contact their related or contractual resident parties.

D. Recommendations on the exclusion of transactions of the non-resident units concerned

49. The recommendations in this section focus on the exclusion of transactions of the non-resident units from the IMTS-data. Though there is a physical cross-border movement of goods, in the NA/BoP imports and exports these transactions should be excluded because there is no change of economic ownership between a resident and a non-resident unit.

50. R16. In a single market with a free movement of goods foreign traders can conduct cross-border movements of goods in each Member State. Their transactions may and may not have any relation to the compiling economy.

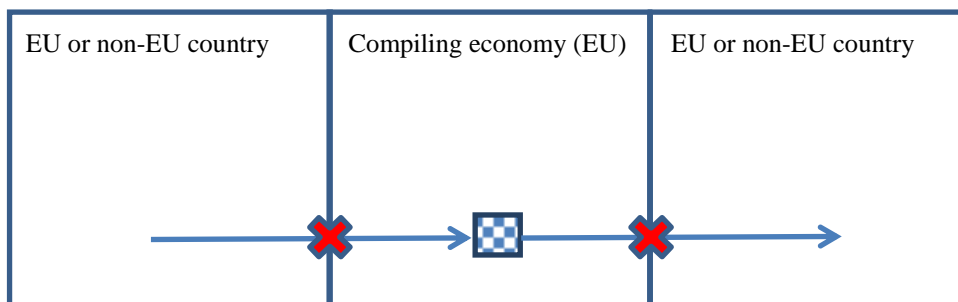
51. Please find below a number of examples of these transactions (non-exhaustive):

Case a

A non-resident imports goods across the borders into the economic territory of a compiling economy, stores the goods in a central warehouse or distribution centre and subsequently exports the goods from the territory of the compiling economy to a final customer (see figure 5).

Figure 5

Excluding IMTS data for NA/BoP



52. This is an example of quasi-transit trade. There is no change of economic ownership between residents and non-residents. Both the inflow of goods (imports in IMTS) and outflow of goods (exports in IMTS) have to be **excluded** from imports and exports in NA/BoP.

imports should be removed from NA/BoP imports of goods and, in case of sales to resident units, replaced by estimates of those transactions.

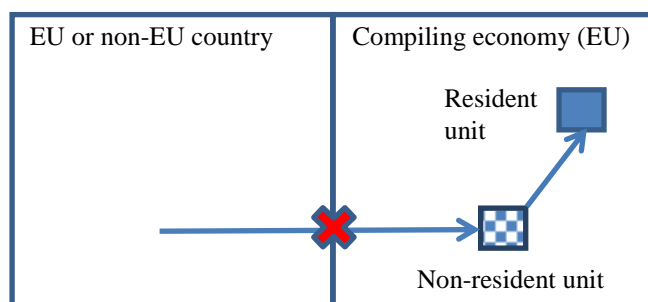
53. Very often the value of goods leaving the territory (exports in IMTS) differs from the value of goods when entering the territory (imports in IMTS)¹⁷. The only transaction between residents and non-residents consists of the value added services provided by residents to non-residents (rental of warehouse, packaging, quality inspections, etc.; these exports of services for the compiling economy are not shown in the diagram).

Case b

A non-resident imports goods across the borders into the economic territory of a compiling economy and sells the goods in the domestic market to a resident unit¹⁸ (see figure 6).

Figure 6

Excluding imports by a non-resident unit for NA/BoP



54. The value of goods entering the country (imports in IMTS) may differ from the real trade value between resident and non-resident in the domestic market. The change of economic ownership occurs at the time of the trade between resident and non-resident unit. The cross-border inflow of goods (recorded in IMTS as imports) cannot be considered as imports in NA/BoP and has to be **excluded**. When the goods are sold, the transaction between the non-resident and the resident has to be included, see case d).

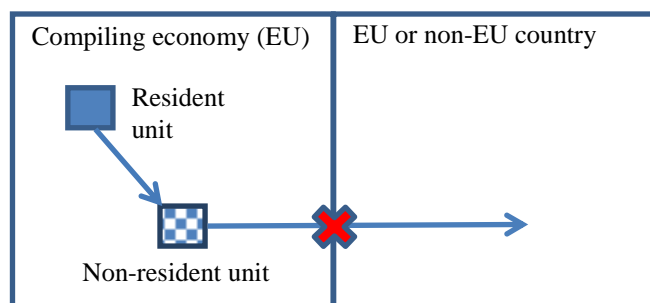
Case c

A non-resident purchases goods from a resident in the domestic market and subsequently exports the goods from the compiling economy (see figure 7).

¹⁷ There may be many reasons for the difference. For example, the goods may be revalued by the non-resident owner from in-house prices to market prices for final customers, there may be holding gains/losses by the non-resident or there may have been some services provided by a resident unit (exports of services for the compiling economy). If units are related, transfer pricing can be involved. Either way, the goods are not owned by residents and the change in value of goods owned by non-residents cannot be recorded in the compiling economy.

¹⁸ In practice, very often a non-resident unit can sell the goods to another non-resident (often related and also registered for VAT in the compiling economy) and this new non-resident owner subsequently exports the goods. This case should be treated analogically to case (a). Transactions between non-residents are not relevant to the compiling economy.

Figure 7

Excluding exports by a non-resident unit for NA/BoP

55. The value of goods leaving the country (exports in IMTS) may differ from the real trade value between resident and non-resident in the domestic market. The change of economic ownership occurs at the time of the trade between resident and non-resident. The cross-border outflow of goods (recorded in IMTS as exports) cannot be considered as exports in NA/BoP and has to be **excluded**. Instead, the purchase of the non-resident from the resident has to be included (see case e).

56. R17. In practice, many different cases of cross-border transactions in goods conducted by non-resident units may occur. In any case, cross-border transactions reported by non-resident units are not relevant to the compiling economy and should be excluded from imports and exports in NA/BoP¹⁹.

57. R18. To identify the transactions that should be excluded from the imports and exports (from Extrastat and Intrastat), use can be made of the special VAT ID number/EORI number for non-resident merchants.

58. R19. Cross border flows reported by non-residents may cover also processing operations where the final products are sold either in the compiling economy or to non-residents from another country. In case of generic adjustments, compilers of NA/BoP should be aware of the danger of 'double exclusion'. Cross-border flows without change of ownership between a resident and a non-resident should be excluded. A transaction cannot (should not) be removed twice; once because the cross border flow concerns goods sent abroad for processing and once again because of non-resident trade.

E. Recommendations on the inclusion of transactions of resident units with the non-resident units concerned

59. Non-residents (may/may not be registered for VAT purposes) can carry out transactions without any physical cross-border movements taking place in the compiling economy. These transactions will not be recorded in the IMTS but should, according to ESA 2010/BPM6, be included in imports and exports figures of NA/BoP.

60. R20. In a single market foreign traders can trade within each and every Member State, if they fulfil the administrative requirements. One of such requirements is usually a

¹⁹ In countries where case (a) is negligible and for cases (b) and (c) there is no difference between the value of goods at the borders (reported into IMTS) and the real trade value, the imports and exports in IMTS reported by non-resident units may still be used as a proxy for the compilation of imports and exports in NA/BoP. However, this may be only a rare situation.

registration for VAT in the compiling economy²⁰. Therefore, their (taxable) transactions²¹ in the domestic economy are usually recorded in VAT returns submitted by foreign traders to the tax authority.

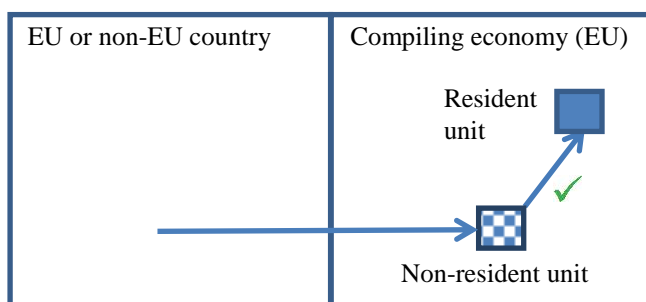
61. R21. Please find below a number of examples of these transactions:

Case d (counterpart to case b)

A non-resident imports goods across the borders into the economic territory of a compiling economy and sells the goods in the domestic market to a resident (see figure 8).

Figure 8

Including sales of a non-resident unit to a resident unit



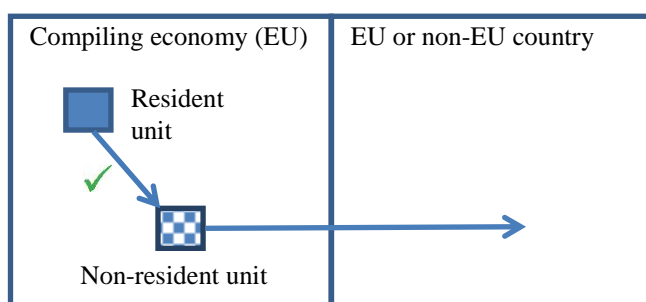
62. For the compiling economy, the value of the transaction in the domestic market (change of economic ownership from non-resident unit to resident unit) is relevant. These sales by non-resident units to resident units should be estimated by compilers of NA/BoP and considered as imports for the compiling economy. In addition, for BoP purposes, it is also necessary to estimate the specific countries of residence of the respective non-resident units.²²

Case e (counterpart to case c)

A non-resident purchases goods from a resident in the domestic market and subsequently exports the goods from the compiling economy (see figure 9).

Figure 9

Including purchases of a non-resident unit from a resident unit



²⁰ Nonetheless, there may be some exceptions and country specifics.

²¹ The activity of foreign traders registered for VAT is usually limited to trading and largely considered as taxable supplies. Nonetheless, there may be country exceptions that must be examined.

²² Geographical breakdown of national BoP current account is a challenging issue; not just because of non-residents trading within the domestic market but also because of merchanting and IMTS data source which provides only information on country of origin/dispatch/destination but omits the information on the residency of the business partner of the resident unit.

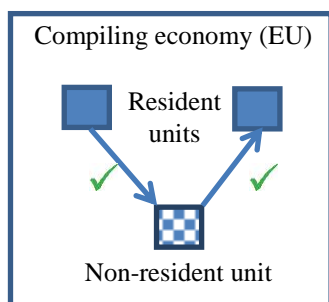
63. For the compiling economy, the value of the transaction in the domestic market (change of economic ownership from a resident unit to a non-resident unit) is relevant. These purchases by non-resident units from resident units should be estimated by compilers of NA /BoP and considered as **exports** for the compiling economy. An approximation of the specific countries of residency of the concerned non-resident units needs to be made for BoP compilation.

Case f

A non-resident purchases goods from a resident in the domestic market of the compiling economy and subsequently sells the goods in the domestic market to another resident (without the goods leaving the territory of the compiling economy)²³ (see figure 10).

Figure 10

Including purchases and sales of a non-resident unit from and to a resident unit



64. For the compiling economy, the value of the transaction in the domestic market (change of economic ownership from resident unit to non-resident unit and subsequently to another resident unit) is relevant. Treating these transactions analogously (but inverse) to 'regular' merchanting would imply that in NA/BoP the purchases and subsequent sales by non-resident units with resident units should be considered as negative imports and subsequent positive imports for the compiling economy. This prevents the exports and imports of the compiling economy from being inflated. However, strictly according to ESA 2010 (paragraph 18.41) and BPM6 (paragraph 10.45) rules, these purchases and sales should be included under general merchandise. In practice this is also most likely to happen: the purchase of the goods will be considered as exports and sales as imports (if the compilers of NA/BoP are unable to detect these transactions directly in primary data sources and distinguish them from cases d and e). A specific survey destined to fiscal representatives could be a solution. The question whether the recording of 'inverse merchanting' should deviate from the current guidelines should be discussed further in connection with BPM7 and should be put on the SNA research agenda.

65. R22. The main challenge for NA/BoP compilers is to estimate sales and purchases in the domestic market between residents and non-residents since they are not recorded in traditional data sources for imports and exports (i.e. in IMTS). It is not needed to additionally estimate these transactions for each case introduced above, i.e. separately sales for case (d) and (f) and separately purchases for cases (e) and (f). However, in practice it may be more suitable to keep them separate since a commodity breakdown of sales/purchases by non-residents is required.

²³ This example is the reverse of merchanting and was initially introduced under the term 'negative merchanting'. However, after additional discussion the terminology was changed to 'inverse merchanting'. In case of merchanting the goods do not enter the compiling economy; in case of inverse merchanting the goods do not leave the compiling economy.

66. R23. *The starting point for the estimation of sales and purchases may be VAT returns submitted by non-resident units: received/provided taxable supplies. VAT returns submitted by residents may not help since the taxable supplies are not usually split into transactions with residents and with non-residents*²⁴.

67. R24. *Received/provided taxable supplies in VAT statements submitted by non-residents may include not only transactions in goods but also in services (depending on statements in each Member State). However, since there is a general reverse-charge rule for services*²⁵, *these services may be assumed to be macroeconomically insignificant. For practical reasons, it may not be possible to distinguish between goods and services in the original data source, but if possible, the services should be excluded from sales/purchases by non-residents in case of estimation of transactions in goods. This trade in services (between residents and non-residents) should be taken into account when compiling transactions in services, if they are not covered by any standard data source (like International Trade in Service Statistics (ITSS))*²⁶.

68. R25. *Received/provided taxable supplies in VAT statements submitted by non-residents may include not only transactions with residents but also **with other non-residents** (so-called resales). Such transactions between non-residents are not relevant to the compiling economy but are defined as taxable supplies in VAT legislation and as such are included in VAT returns submitted by non-resident units. Resales inflate equally both purchases and sales of buyers and sellers. Especially if there are related non-residents registered for VAT in the compiling economy, these resales in primary data sources may be significant.*

69. R26. *Compilers should investigate all domestic sales/purchases reported by non-residents and if the transaction is with a resident unit it should be classified either as imports/exports of goods (majority) or as imports/exports of services (minority). When it is not possible to identify transactions with residents (identify resales) or distinguish between goods and services from the original data source (= VAT statements by non-residents), it is recommended to include these transactions as imports/exports anyway. In this way the balance of trade in goods and services as a whole is as accurate as possible and with the least divergence of the breakdown in goods and services.*

- *If transactions between non-residents (resales) are not excluded from sales/purchases it will lead to an overestimation of imports and exports (equally on both sides in the total value of sales/purchases by all non-residents) but it would not affect the trade balance (since what is for one non-resident a sale is for another a purchase).*
- *If the goods and services are mixed, it would deteriorate the breakdown but the trade balance of goods and services would not be affected.*

²⁴ The data scope of VAT returns in each Member State may vary. Therefore, in some countries the tax base of received/provided taxable supplies of goods may be the basis for the estimation; in other countries alternative indicators may be needed.

²⁵ VAT Directive 2006/112/EC (including amendments!), Article 44.

²⁶ Concerning ITSS; in some countries surveys on foreign trade in services may include also non-residents. In other words, non-residents may report their services into primary data sources used for the compilation of services. In such a case, these services should be excluded because these transactions by non-residents (by definition) are not relevant for the compiling economy. This is analogously to the adjustment of 'raw data' collected by Intrastat/Extrastat for cross-border movements of goods by non-residents. This is in fact a general reminder that non-resident activities may be surveyed (by accident or on purpose) in the compiling economy and in such a case compilers have to examine this primary data source and the relevance of collected data to the compiling economy.

70. R27. *In some countries, other data sources with questions for residents about trade in the domestic market with non-resident units may be available. Cross checking the obtained data with other sources is always recommendable.*

71. R28. *Cross-border transactions reported by non-resident units into IMTS may also be helpful - at least for cases (d) and (e). If case (a) is negligible in the compiling economy and a difference between the value of goods at the borders and in the domestic market in cases (b/d) and (c/e) can be estimated, then IMTS data reported by non-residents may be a base for the estimation of sales and purchases by non-resident units in the domestic market.*

72. R29. *IMTS data cannot help with the estimation of sales/purchases in case (f).*

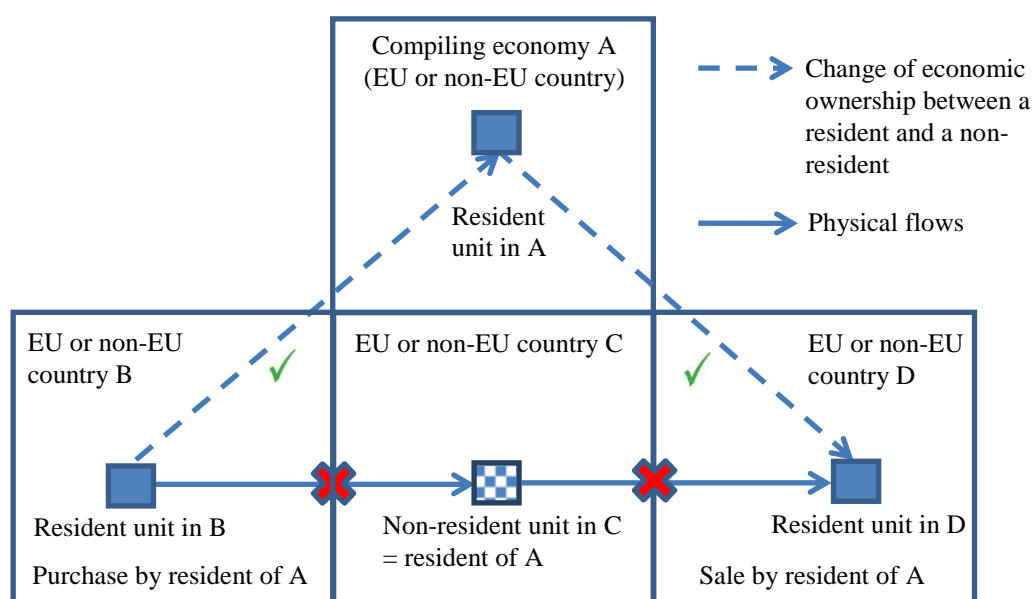
73. R30. *For supply and use tables a commodity breakdown of sales/purchases by non-residents is required. If there is no direct data source (e.g. statistical survey), IMTS data reported by non-residents can be the starting point. However, the impact of this issue usually varies from commodity to commodity (from unit to unit) so additional study is needed. As for case (f) IMTS data source cannot help, so an alternative data source is needed. NACE codes of the companies involved may be helpful.*

F. Recommendations on mirror transactions – Residents in the role of non-residents registered for VAT in other Member States

74. In this section, recommendations are given concerning mirror transactions. Residents of a compiling economy can be registered for VAT in other Member States. Only if 'both sides' are covered correctly, including correct identification of the geographical counterparts for these transactions, asymmetries can be avoided and sound total EU aggregates be estimated.

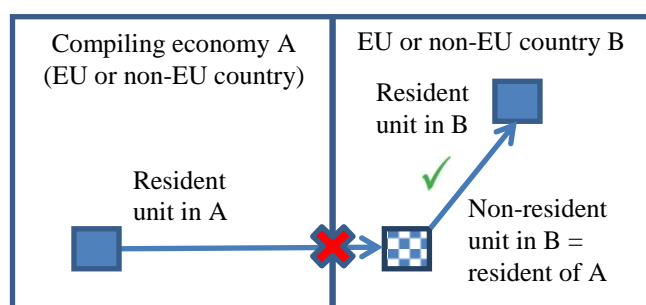
75. R31. *Referring to case (a): A resident of a compiling economy (country A) is registered for VAT in Member State C (see figure 11). If this unit exports goods from economy B, through economy C (warehouse) to economy D, in the NA/BoP of economy C no imports and exports of goods should be registered. In country B export is registered vis-à-vis country A (purchases by non-resident), in country D import from country A is registered (sales by non-resident), and in country A **merchandising** transactions are registered (purchases from country B as **negative** export and sales as export of goods to country D under ESA 2010/BPM6). These transactions (in the compiling economy) are usually covered by data sources focused on merchandising transactions.*

Figure 11
Mirror transactions to case a – merchanding, four countries involved



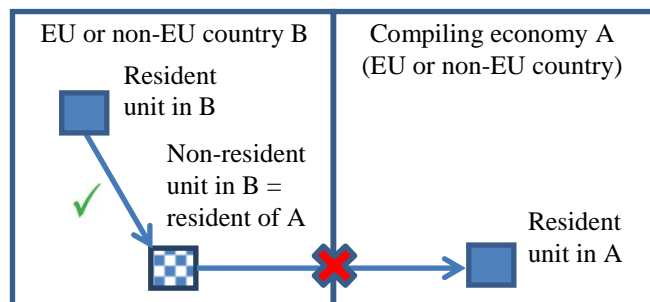
76. R32. Referring to the cases (b) and (d): A resident of a compiling economy is registered for VAT in Member State B (see figure 12). If this unit exports goods from the compiling economy to this other Member State, there is no export from the compiling economy when the goods cross the border but an export should be registered in NA/BoP when the goods are sold to a resident unit of this Member State B. For this case data are uneasily accessible, therefore data on cross-border transactions (especially for FOB valuation) can be used.

Figure 12
Mirror transactions to cases b and d – two countries involved ('postponed export')



77. R33. Referring to case (c) and case (e): A resident of a compiling economy A is registered for VAT in Member State B (see figure 13). If this unit purchases goods in Member State B and imports these goods into the compiling economy, from a theoretical point of view, the import should be the purchase in economy B. However, also other costs may be added to the value of goods on its way to country A, so at least for imports in CIF valuation the data on cross-border movements can be used. Data on purchases are not easily accessible.

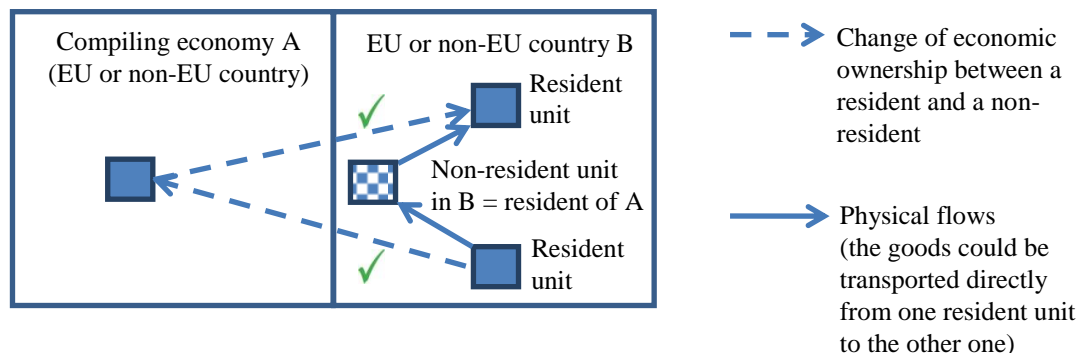
Figure 13

Mirror transactions to cases c and e – two countries involved ('advanced imports')

78. Please note: In the examples in figures 12 and 13 the unit which reports all cross-border transactions in all Member States (i.e. into Intrastat in each Member State) is a resident of country A. It is this one unit reporting transactions on both sides of the borders (e.g. reporting exports from country B and imports to country C) even though there is a different VAT number of the unit in each Member State.

79. R34. Referring to case (f): A resident of a compiling economy A is registered for VAT in Member State B (see figure 14). If this unit purchases goods from a resident unit of this Member State B and subsequently sells them to another resident unit of Member State B, this is classified as **merchandising**. For the compiling economy, in NA/BoP, the **purchase** should be registered as a **negative export** and the **sales** of the goods to another resident unit of Member State B should be registered as a **positive export**. These transactions (in the compiling economy) are usually covered by the data sources focused on merchandising transactions.

Figure 14

Mirror transactions to case f – inverse merchandising, two countries involved

80. Besides the 34 recommendations listed above, in the final report a few numerical examples are given. Also an overview of useful sources and a list with definitions/explanations are displayed.

81. The final report of the expert group on foreign trade reported by non-residents has focussed on the current accounts, and financial transactions were not directly taken into account.

IV. Conclusions and further work

82. The strict application of the change of economic ownership rule in 2008 SNA and BPM6 has a huge impact on the compilation of imports and exports figures in national accounts and balance of payments statistics. Goods sent abroad for processing should not be recorded gross anymore. The recognition of cross border flows concerning goods sent abroad for processing is not easy, especially in case the goods do not return to the country of the principal. Although conceptually in line with the rules (and the financial flows!) the practical problems are substantial. Besides the implementation issues there is the increasing difference between IMTS figures and the imports and exports as recorded in NA/BoP. These differences must be explained to users.

83. In case of foreign trade reported by non-residents, there is no conceptual change between the previous and the current guidelines. Here the main issue is that IMTS figures include imports and exports of non-resident units. These flows should be recognised and subsequently excluded for use in NA/BoP. On the other hand, transactions between these non-resident units and resident units should be included.

84. Based on the experiences of countries in applying the recommendations, the recommendations could be updated and sharpened. Then also the financial transactions should be included.

85. To avoid (the introduction of new) asymmetries, the cross border cooperation between countries on aspects concerning foreign trade is highly recommended.

86. The same goes for the establishment of large and complex enterprises units in the national statistical institutes. Many of the cross border flows treated in this paper are between head offices/subsidiaries/affiliates of the same multinational enterprises. The determination of the economic ownership (principal or processor) and in general the understanding of cross border production processes (including trade and transport) is crucial for the correct recording of the transactions concerned in the national accounts and balance of payments statistics.

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