

# Technical Note

## **Further clarifying the conceptual treatment of physical imports and exports in economy-wide material flow accounts (EW-MFA)**

**October 2017**

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## Glossary

BoP	Balance of payments
BPM6	Balance of Payments and International Investment Position Manual, Sixth Edition
EEA	refers in general to environmental economic accounting
ESA 2010	European System of Accounts, 2010 Edition
ESA95	European System of Accounts, 1995 Edition
HH	Private Households
IMTS	International merchandise trade statistics – refers in general to foreign trade statistics
ITGS	refers to the European version of IMTS, namely international trade in goods statistics
NACE	Statistical classification of economic activities in the European Community
NA	National accounts
OECD	Organization for Economic Cooperation and Development
SEEA-CF 2012	System of Environmental-Economic Accounting – Central Framework, 2012
SNA 2008	System of National Accounts, 2008
UN	United Nations

# 1 Overview and Eurostat's recommendation

## 1.1 Problem description and objectives of this note

Economy-wide material flow accounts<sup>1</sup> (EW-MFA) record physical imports and exports in Tables B to E of the EW-MFA questionnaire. A precise and internationally harmonised statistical demarcation of physical trade is required to ensure high accuracy and comparability of EW-MFA data.

Recently, national accounts guidelines (SNA 2008 and ESA 2010) introduced an important conceptual change related to the demarcation of trade: *goods sent abroad for processing* are no longer included in imports and exports. Triggered by this conceptual change Eurostat compiled this note on the treatment of physical trade flows in EW-MFA.

The objectives of this technical note are:

- Clarify the conceptual treatment of physical trade in EW-MFA through its exact demarcation – which types of trade transactions should be included, and which ones excluded (see summary in section 1.2)
- Identify differences between conceptual demarcations employed in other statistical domains (trade in goods, national accounts, balance of payments, and energy statistics) in order to provide precise guidelines on adjustment needs when using those statistics to compile physical trade for EW-MFA.

The following section 1.2 summarises Eurostat's recommendation.

Chapter 2 provides an overview of foreign trade concepts in various statistical domains, namely:

- national accounts and balance of payments (NA/BoP),
- environmental economic accounting (EEA),
- foreign trade statistics<sup>2</sup>, and
- energy statistics.

Compilers of EW-MFA should be aware of conceptual differences between the various statistical domains as they trigger the need for certain adjustments. Chapter 3 introduces a typology of trade transactions and how each transaction-type is conceptually treated in various statistical domains (see also Annex 1). It may help compilers of EW-MFA to identify adjustment needs.

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<sup>1</sup> Regulation (EU) 691/2011 (Annex III)

<sup>2</sup> At international level the term '*International Merchandise Trade Statistics*' (IMTS) has been established. In the European Statistical System the term '*International Trade in Goods Statistics*' (ITGS) has been established recently.

## 1.2 Eurostat's recommendation for the treatment of physical trade in EW-MFA

Conceptually, EW-MFA (including physical trade) are based on the system of environmental-economic accounting (i.e. SEEA-CF 2012) which again is based on the system of national accounts (SNA 2008, ESA 2010) and the balance of payments (BPM6).

The '*residence*' principle is one common concept of above mentioned statistical domains, according to which the change of ownership between a resident unit and a non-resident unit marks a major criterion to consider a transaction as international trade.

For the majority of types of trade-transactions (see summary table below) their treatment in EW-MFA's physical trade is clearly derivable from SEEA-CF and NA/BoP.

There is one type of trade-transaction – *goods sent abroad for processing* – where the SEEA-CF deviates from national accounts and balance of payments guidelines. In this case EW-MFA follows the SEEA-CF, i.e. includes *goods sent abroad for processing* in its physical trade, whereas national accounts and balance of payments exclude it from trade.

So far, it has been unclear how to treat in EW-MFA two types of trade-transactions, namely *re-exports* and *goods under merchanting*. Eurostat makes the following recommendation<sup>3</sup>:

- 1) *re-exports* should be included in EW-MFA's physical trade in order to ensure coherence with national accounts and balance of payments principles (see section 3.3);
- 2) *goods under merchanting* should be excluded from EW-MFA's physical trade in order to avoid that the imports and exports are unnecessarily 'blown up'. This way of recording is in line with the 'export-net-recording' in national accounts and balance of payment (see section 3.8) because in physical terms imported goods under merchanting and exported goods under merchanting always balance out to zero.

### Summary table: Treatment of various transaction types in EW-MFA's physical trade (see also Annex 1)

Transaction type (for further details: section numbers in brackets)	Treatment in EW-MFA's physical trade
Regular intra EU trade (3.1)	Include
Regular extra EU trade (3.2)	Include
Re-exports (3.3)	Include

<sup>3</sup> The Working Group on Environmental Accounts agreed with these recommendations at its meeting 3-4 May 2017.

Transaction type (for further details: section numbers in brackets)	Treatment in EW-MFA's physical trade
<b>(Simple) Transit (3.4)</b>	Exclude
<b>Quasis transit (3.5)</b>	Exclude
<b>Goods sent abroad for processing (3.6)</b>	Include
<b>Goods and services purchased by residents abroad / goods and services sold to non-residents on the territory (including goods delivered to vessels/aircraft) (3.7)</b>	Include
<b>Goods under merchanting (3.8)</b>	Exclude

## 2 Brief overview of foreign trade concepts in various statistical domains

### 2.1 National accounts and balance of payments (NA/BoP)

*General principle is the 'change of ownership' between resident units and non-resident units*

In national accounts and balance of payments (NA/BoP) the definition of trade in goods and services is based on the change of ownership between resident units and non-resident units. The respective ESA 2010 statements are the following:

*(ESA 2010 para. 3.158) Exports of goods and services consist of transactions in goods and services (sales, barter, and gifts) from residents to non-residents.*

*(ESA 2010 para. 3.159) Imports of goods and services consist of transactions in goods and services (purchases, barter, and gifts) from non-residents to residents.*

*(ESA 2010 para. 3.162) Imports and exports of goods occur when economic ownership of goods changes between residents and non-residents. This applies irrespective of corresponding physical movements of goods across frontiers.*

#### *Specific cases*

- *Goods sent abroad for processing* (see also section 3.6) are excluded from trade since the last changes of national accounts (SNA 2008, ESA 2010) and BoP (BPM6). See further paras. 2.1 – 2.6 and paras. 5.5 – 5.6 in [Manual on goods sent abroad for processing – 2014 edition](#).
- *Transit of goods* (see section 3.4) is excluded from NA/BoP.

- *Quasi transit* (see section 3.5) is excluded as long as resident units do not obtain ownership.
- *Goods under merchanting* (see section 3.8) are included in NA/BoP however recorded in a specific way – the purchase by the merchant (ingoing good) is recorded as negative export.
- *Re-exports* (see section 3.3) are included because resident units first obtain ownership of a good before they export the same good.
- *Goods purchased by resident units abroad* are considered as imports; *goods sold to non-residents on the territory* are considered as exports (see section 3.7).

## 2.2 System of Environmental-Economic Accounting 2012 – Central Framework

*General principle is to follow national accounts and balance of payments with one exception*

For physical flows to and from the rest of the world the [system of environmental-economic accounting central framework \(SEEA-CF\)](#) in general prescribes a treatment according to the residence principle (see SEEA-CF section 3.3.3, paras. 3.121 ff.) based on national accounts and balance of payments (NA/BoP).

However, the SEEA-CF recommends deviating from NA/BoP principles in the case of *goods sent abroad for processing or repair*. Here the SEEA-CF recommends recording the actual physical flows (see SEEA-CF para. 1.46 and sections 3.3.3 and 3.3.4, paras. 3.121 - 3.139; also para. 6.18 (a)).

SEEA-CF para. 1.46: '*..., in situations where goods are sent to other countries for processing or repair, or in respect of merchanting, the SEEA Central Framework recommends recording the actual physical flows of goods in those cases where the ownership of those goods does not change but remains with a resident of the originating country...*'

SEEA-CF para. 6.18 (a) is clearer: '*In cases where goods are sent abroad for processing, the monetary supply and use tables record transactions related to the service provided by the processing country. In physical terms, the actual physical flows of the goods should be recorded. The same considerations apply to goods for repair and merchanting.*'

The Task Force on Material Flow Accounts agreed at its meeting on 11-12 June 2013<sup>4</sup> that EW-MFA should follow the SEEA-CF and include in physical trade *goods sent abroad for processing*.

The SEEA-CF emphasises that *goods purchased by resident units abroad* are to be considered imports and *goods sold to non-residents on the territory* are to be considered exports (see SEEA-CF section 3.3.3, paras. 3.121ff.).

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<sup>4</sup> [Doc. ENV/ACC/TF/MFA/OM \(2013\)](#)

## Specific cases

- *Goods sent abroad for processing* are included in SEEA-CF – in contrast to rules in national accounts (SNA 2008, ESA 2010) and BoP (BPM6) (see also section 3.6).
- *Re-exports* (see section 3.3) are included because SEEA-CF follows principles of national accounts and balance of payment.
- *Goods purchased by resident units abroad* are considered as imports / *goods sold to non-residents on the territory* are considered as exports (see section 3.7).

## 2.3 Foreign trade in goods statistics (IMTS)<sup>5</sup>

In general, foreign trade statistics can be distinguished into those related to goods and those related to services. Here, we refer to foreign trade in goods.

Foreign trade in goods statistics at the international level are referred to as International Merchandise Trade Statistics (IMTS). Methods and concepts for IMTS are laid down in various publications coordinated by the United Nations Statistical Division (UNSD). The most recent reference and guideline document is the white cover version of *International Merchandise Trade Statistics: Compilers Manual, Revision 1 (IMTS 2010-CM)*.

The European Statistical System (ESS) has its own version, most recently referred to as International Trade in Goods Statistics (ITGS or EU-ITGS)<sup>6</sup>. The most important methodological publications coordinated by Eurostat are:

- [User guide on European statistics on international trade in goods - 2016 edition](#)
- [Compilers guide on European statistics on international trade in goods — 2017 edition](#)

The harmonised European-wide rules (the so-called community concept) are applied for the EU ITGS (i.e. COMEXT foreign trade data base). Notably, some EU Member States may apply their specific national conventions deviating from the EU-ITGS when they publish at national level.

### *General principle is 'physical-cross-border-movement' of goods*

The EU international trade in goods statistics (ITGS) track the value and quantity of goods traded between EU Member States (intra-EU trade) and between Member States and non-EU countries (extra-EU trade). As a general principle the flows of goods are recorded as they physically cross borders of the statistical territory.

However, different definitions of statistical territory are applied for IntraStat (general trade system) and ExtraStat (special trade system – relaxed definition):

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<sup>5</sup> See footnote 2.

<sup>6</sup> Before, other terms have been used such as e.g. simply 'international trade', 'statistics relating to the trading of goods', or 'external trade'.



- General trade system – applied in IntraStat – all goods are recorded that cross the border of the statistical territory (including custom warehouses, all types of free zones, free circulation area and premises for inward processing);
- Special trade system (relaxed) – applied in ExtraStat – the statistical territory excludes custom warehouses<sup>7</sup>.

### Specific cases

(see further [User guide on European statistics on international trade in goods - 2016 edition](#), 3.3):

- *Goods sent for processing* are included as they physically cross borders (see also section 3.6).
- *Transit of goods* is excluded from EU ITGS, although crossing borders (see section 3.4).
- Notably, so-called *quasi transit* is included in EU ITGS, as crossing borders (see section 3.5).
- Physical delivery of goods in a Member State's port/airport on board a vessel/aircraft whose economic owner does not reside in that Member State are included as exports in ITGS, although not crossing the border.
- *Goods purchased by resident units abroad* are excluded.
- *Goods under merchanting* are excluded from EU ITGS as long as they do not cross the border of the statistical territory of the reporting Member State (see section 3.8).
- *Re-exports* are included (see section 3.3).

There are specific rules for particular goods or movements (e.g. vessels, aircraft, spacecraft; electricity etc.) where the physical movement of goods crossing borders is not the appropriate criteria and it is difficult to collect the required data using standard declarations (see [User guide on European statistics on international trade in goods - 2016 edition](#), 4.12).

## 2.4 Energy statistics

Energy statistics record the import and export of energy products. The general principles are (see [Energy Statistics Manual](#) pp.23-25):

- the respective energy commodity should physically cross the borders;
- as a result of purchases and sales made by persons living in the reporting country;
- the respective energy commodity should be widely used domestically (i.e. transit is excluded);
- in case of electricity trade is considered to happen between neighbouring countries only;
- in case of natural gas, the trade is considered to happen between the extracting country and the country which is finally using the natural gas.

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<sup>7</sup> Therefore, goods from a non-EU country imported into customs warehouses are not recorded unless they subsequently go into free circulation in the country of receipt (or are placed under the customs procedures for inward processing or processing under customs control). Conversely, outgoing goods from customs warehouses are not recorded as exports.

## General principle

The general principle is to record physical flows as they cross borders excluding transit. For electricity it is impossible to separate transit, hence it might be included. For natural gas it is very important to identify and exclude transit, i.e. for natural gas the original origin should be identified. For example, natural gas may be originally extracted in Russia and then transported through several countries before it arrives at its final user e.g. in Luxembourg.

## Specific cases

Marine bunkers and international aviation are specific cases in energy statistics.

- Marine bunkers include deliveries of energy commodities (e.g. petroleum products) to ships for consumption during international voyages (bunker oils). All ships, irrespective of the country of registration (flag) or the residence/nationality of the operator or the owner, should be included but the ships must be undertaking international voyages. Notable, deliveries to fishing vessels are excluded from marine bunkers.
- International aviation is treated similarly. It includes all fuel delivered to aircrafts departing from domestic airports for international journeys; irrespective of the nationality of the operator or owner.

## 3 Comparative review of types of trade transactions in various statistical domains

In this chapter eight types of trade transactions are distinguished. For each type of trade transaction the following sections review its conceptual treatment in the various statistical domains (national accounts and balance of payment, international trade in goods and economy-wide material flow accounts). Annex 1 summarises this review in form of a table.

The chapter starts with the 'regular' cases where the change of ownership and the physical movement of goods coincide (see sections 3.1 and 3.2). *Re-exports* (section 3.3) may be considered also a 'regular' case where physical movement and change of ownership coincide.

The chapter moves on with the review of more 'irregular' cases of trade transactions. There are cases where goods are physically moving over borders but actually do not change ownership (*simple transit* and *quasi transit*, sections 3.3 and 3.5; and *goods sent abroad for processing*, section 3.6). Sections 3.7 and 3.8 review cases where the ownership of goods changes between residents and non-residents without physical movement across borders of the reporting country.

### 3.1 Regular intra EU trade

The term 'regular' is used in this paper to denote that the physical cross-border-movement of a good coincides with the change of ownership between a resident unit of the reporting country and a non-resident unit.

The term 'intra EU trade' originates from European foreign trade statistics (ITGS) and denotes a trade transaction between resident units of two EU Member States.

In this paper *regular intra EU trade* denotes the change of ownership of goods and services between residents of two EU Member States where the traded good crosses the border between the two respective Member States. Notably, *goods sent abroad for processing* (see section 3.6) are not included in *regular intra EU trade* because no change of ownership is involved.

*Regular intra EU trade* is coherently recorded the same way in NA/BoP, IMTS, and EW-MFA.

### 3.2 Regular extra EU trade

The term 'regular' is used in this paper to denote that the physical across-border-movement of a good coincides with the change of ownership between a resident unit of the reporting country and a non-resident unit.

The term 'extra EU trade' originates from European foreign trade statistics.

In this paper *regular extra EU trade* denotes the trade between non-EU countries and EU Member States where change of ownership coincides with the physical movement of the respective traded good. For example, the purchase of natural gas by a Finish resident unit from a Russian resident unit whilst the natural gas is actually crossing the Russian-Finish border. Notably, *goods sent abroad for processing* are not included in *regular extra EU trade* because no change of ownership is involved.

*Regular extra EU trade* is coherently recorded the same way in NA/BoP, IMTS, and EW-MFA.

### 3.3 Re-exports

The term *re-exports* is known in NA/BoP as well as in IMTS (see BPM6 par. 10.37 ff.; and ESA 2010 par. 18.28)

ESA 2010 par. 18.28 and BPM6 par. 10.37: '*Re-exports are foreign goods (goods produced in other economies and previously imported [with a change in economic ownership]) that are exported with no substantial transformation from the state in which they were previously imported.*'

### Treatment in NA/BoP:

*Re-exports* are included in trade transactions of NA/BoP and in principle treated and recorded as any other export. It is recommended to show *re-export* separately as an 'of which'-item under exports.

ESA 2010 par. 18.28: '*Given that re-exported goods are not produced in the economy concerned, they have less connection to the economy than other exports. Economies that are major trans-shipment points and locations of wholesalers often have large values of re-exports. Re-exports increase the figures for both imports and exports and when re-exporting is significant, the proportions of imports and exports to economic aggregates are increased also. It is, therefore, useful to show re-exports separately. Goods that have been imported and are waiting to be re-exported are recorded in inventories of the resident economic owner.*'

BPM6 par. 10.37: '*The price of the re-exported good may differ from its price at the time it was originally imported [...]. For goods to be included in re-exports for balance of payments statistics, a resident must acquire then resell the goods with the goods passing through the territory.*'

### Treatment in IMTS:

*Re-exports* are included in IMTS. It is recommended to show them separately.

IMTS Concepts and Definitions 2010 par. 2.18: '*Re-exports are exports of foreign goods which were previously recorded as imports. It is recommended that re-exports not only be included in total exports but also be separately identified (coded) for analytical purposes.*'

### Treatment in EW-MFA:

So far EW-MFA guidelines have not addressed this type of trade. Eurostat recommends<sup>8</sup> to include *re-exports* in EW-MFA in order to ensure consistency with NA/BoP.

## 3.4 (Simple) Transit

In this note the terms 'transit' or 'simple transit'<sup>9</sup> refer to goods moved through the territory of a reporting country on their way to their final destination (third country).

ESA 2010: 18.28: '*Transit trade is where goods cross a country on their way to their final destination.*'

IMTS 2010: 1.41: '*Goods simply being transported through a country. Goods are considered as simply being transported through a country if they (a) enter and leave the*

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<sup>8</sup> The Working Group on Environmental Accounts agreed with this recommendation at its meeting 3-4 May 2017.

<sup>9</sup> 'Simple' in contrast to 'quasi'; see next section.

*compiling country solely for the purpose of being transported to another country, (b) are not subject to halts not inherent to the transportation and (c) can be identified when both entering and leaving the country.'*<sup>1</sup>

For the country crossed, *transit* of goods is generally excluded from foreign trade statistics, NA/BoP, and EW-MFA.

### 3.5 Quasi transit

*Quasi transit* in a broader definition denotes goods transported into the reporting country, custom cleared by a non-resident, and subsequently sold and sent to a third country. The good physically enters the country. The ownership changes, however to a non-resident unit who functions as a kind of trader/administrator. The case of *quasi transit* occurs in particular when a good physically arrives for the first time in the EU custom union. Then it needs to be custom cleared for free circulation in the EU. Often, the agencies carrying out the custom clearance are non-resident units in the reporting country where the good arrives for the first time.

The term *quasi transit* is mentioned in ESA 2010<sup>10</sup> and confined to the case where goods enter for the first time the EU custom union territory. Recently, its definition has been broadened<sup>11</sup>.

#### Treatment in IMTS/ITGS:

*Quasi transit* is included and recorded in IMTS. *Quasi transit* has to be recorded in European ITGS (both IntraStat and ExtraStat).

Note that some EU Member States exclude *quasi transit* from their national ITGS (e.g. Slovenia) while European ITGS include *quasi transit*. This is a source for differences between European ITGS and national statistics.

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<sup>10</sup> ESA 2010 par. 18.28: '*Quasi transit trade are goods imported into a country, cleared through Customs for free circulation within the EU, and then dispatched to a third country in the EU. The entity used for Customs clearance is usually not an institutional unit as defined in Chapter 2, and so does not acquire ownership of the goods. In this case, the import is shown in the national accounts as a direct import to the final destination, as in the case of simple transit trade. The appropriate value is that recorded as the goods enter the final destination country.*'

<sup>11</sup> see footnote 7 in ESA 2010 Methodological Note: [Foreign trade trade reported by non-residents](#): '*Quasi-transit trade in a broader definition as 'goods transported into a country A by a non-resident (recorded as imports in IMTS) and then sent from the country A by a non-resident (recorded as exports in IMTS)'. The term 'quasi-transit trade' was, until recently, and followed by ESA 2010, defined in the EU as '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'. However, this economic phenomenon 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 either at the time of preparation of the Manual on goods sent abroad for processing or at the time of preparation of the questionnaire. 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 the questionnaire under 'similar operations to quasi-transit trade'. This document recommends treating both described phenomena (either from 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.*'

### Treatment in NA/BoP and EW-MFA:

The NA/BoP as well as the EW-MFA of the country where goods arrive for the customs clearance should exclude them from national imports and exports as they continue to be owned by a non-resident entity. The country a resident of which eventually buys the goods should record the import in NA/BoP and EW-MFA. See paras. 2.25 – 2.30 in [Manual on goods sent abroad or processing – 2014 edition](#):

In quasi transit trade, goods are imported into a country by a non-resident, and then re-exported to a third country, often in the same economic union, usually at a higher price. *The national accounts, BoP goods and EW-MFA* of the country where the goods arrive for the customs clearance should exclude the goods from national imports and exports as the goods continue to be owned by the non-resident entity. The country which eventually buys the goods should record the import.

As the country where the goods enter the EU does not take ownership of the goods, the value of the goods as they enter and leave the country and are recorded in ITGS should be excluded from the national accounts, *BoP goods and EW-MFA*. European regulations however, require the transmission of BoP and IMTS data for EU and Euro-area aggregates at the point where goods are cleared for entry into the EU (or Euro-area). Data in line with this ‘community principle’ will therefore include quasi transit trade.

There can be large differences between the value of goods when they enter the EU and when they reach their final destination. The treatment of quasi transit trade is designed to avoid double counting of trade that is included in EU aggregates. In EU aggregates (rather than national aggregates), the difference between the declared value of the goods when they enter the EU and the subsequent sales price is recorded as ‘**branding**’ — recorded as an import of services by the transit country from the owner of the goods. At least part of this difference in value may be due to transfer pricing by the owner of the goods, rather than any service activity.

While quasi transit trade usually refers to goods that are imported into a country before onward despatch to a third country, the same phenomena can occur for exports also. For example, wine exported from France to Russia may be cleared for Customs in Lithuania. In this case, the export is shown in the national accounts of France as a direct export to Russia. Lithuania does not take ownership of the goods, so the value of the goods as they enter and leave the country should be removed from IMTS for national accounts purposes.

### Treatment in EW-MFA:

EW-MFA follows NA/BoP, i.e. *quasi transit* is excluded from physical trade.

## 3.6 Goods sent abroad for processing

The term *goods sent abroad for processing* or simply *goods for processing* is known in NA/BoP (e.g. see ESA 2010 paras. 18.33 ff.) as well as IMTS (e.g. see IMTS 2010 paras. 1.19 ff.).

*Goods for processing* denote goods that are sent abroad or brought into a country under a specific arrangement between the involved parties and for specific operations (further transformation that is changing the characteristics of the goods).

ESA 2010 gives an example (para. 18.35): '*Consider the case where a food manufacturing firm harvests and processes vegetables, then outsources the actual canning of the vegetables to a wholly owned subsidiary abroad, and then takes them back canned and sells the canned food on.*'

#### Treatment in IMTS:

Explicitly, *goods for processing* are to be included in IMTS (IMTS 2010, para. 1.20).

#### Treatment in NA/BoP:

Under ESA 2010, *goods sent abroad for processing* will be recorded on a strict change of ownership basis, meaning that where goods sent abroad do not change ownership, they are excluded from the trade in goods data. Instead, the cost of the processing service is recorded as trade in services (manufacturing services on physical inputs owned by others). ESA 2010, SNA 2008 and BPM6 present a consistent conceptual approach for recording *goods sent abroad for processing* in national accounts and balance of payments, but there are certain compilation issues (see e.g. in [Manual on goods sent abroad or processing – 2014 edition](#)).

#### Treatment in EW-MFA:

EW-MFA does not follow NA/BoP and instead follows SEEA-CF (see section 2.2) which explicitly recommends including *goods sent abroad for processing* in physical trade.

### **3.7 Goods and services purchased by residents abroad / goods and services sold to non-residents on the territory (including goods delivered to vessels/aircraft)**

The terms *goods and services purchased by residents abroad* and *goods and services sold to non-residents on the territory* originate from European environmental-economic accounting modules (AEA, EW-MFA, PEFA). They have been introduced to label the adjustment-items arising from the conceptual difference between the *change-of-ownership principles* (NA/BoP/SEEA-CF) versus the *physical-movement-over-borders-principle* (IMTS).

'Goods delivered to vessels/aircraft' can be regarded as a sub-case of *goods and services sold to non-residents on the territory* and is a term originating from IMTS – more specifically the EU ITGS:

- Physical delivery of goods in a Member State's port/airport on board a vessel/aircraft whose economic owner does not reside in that Member State ([User guide on European statistics on international trade in goods - 2016 edition](#), p. 69)

It denotes the delivery of goods to vessels and aircrafts that are owned by non-residents but the delivery takes place on the territory of the reporting country (e.g. international ports and airports).

#### Treatment in IMTS/ITGS:

In IMTS *goods and services purchased by residents abroad* are out of scope.

*Goods and services sold to non-residents on the territory* are in general out of scope of IMTS of the reporting country. The exception is '*goods delivered to vessels/aircraft*' which are recorded as exports in IMTS (the owner of the vessel/aircraft needs to be a non-resident<sup>12</sup>).

#### Treatment in NA/BoP and EW-MFA:

NA/BoP and EW-MFA are fully aligned for these types of trade transactions.

In NA/BoP and EW-MFA *goods and services purchased by residents abroad* are to be recorded as imports of the reporting country.

*Goods and services sold to non-residents on the territory* are to be recorded as exports in NA/BoP and EW-MFA. The sub-case '*goods delivered to vessels/aircraft*' (owned by non-residents) is also to be recorded as export in NA/BoP and EW-MFA, however, only if the operator is a non-resident. It might be the case that the operator is a resident unit. In this case there is no change of ownership between a resident unit and a non-resident and hence no export in the sense of NA/BoP.

### 3.8 Goods under merchanting

The term *goods under merchanting* originates from NA/BoP (see ESA2010 par. 18.38 ff.; and BPM6 par. 10.41 ff.). It is not known in the context of IMTS.

ESA 2010 par. 18.38 and BPM6 par 10.41: '*Merchanting is defined as the purchase of goods by a resident (of the compiling economy) from a non-resident combined with the subsequent resale of the same goods to another non-resident without the goods being present in the compiling economy.*'

#### Treatment in NA/BoP:

*Goods under merchanting* are recorded in national accounts as well as balance of payments. However, they are recorded in a specific way in order to avoid the 'blowing-up' of imports and exports on both sides of the trade balance: The inward flow (i.e. the purchase by the merchant who is resident unit of the compiling economy) is recorded as negative export! The re-sale of the same good to another non-resident is recorded as positive export, i.e. the price difference ends up as net export of goods under merchanting (see ESA 2010 par. 18.40).

#### Treatment in IMTS:

*Goods under merchanting* are not included.

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<sup>12</sup> For goods delivered to sea-going vessels and to aircraft, the economic ownership of the vessel or aircraft is used to determine the partner country ([User Guide on European statistics on international trade in goods 2016](#), p. 30).



### Treatment in EW-MFA:

So far EW-MFA guidelines have not addressed this type of trade. Eurostat recommends the following<sup>13</sup>:

*Goods under merchanting* are not included in the physical trade of the EW-MFA of the country where the merchant is resident. *Goods under merchanting* are recorded as physical export in the EW-MFA of the resident country of the seller and recorded as physical import in the EW-MFA of the resident country of the buyer.

The SEEA-CF seems to suggest the above treatment (see SEEA-CF paras. 1.46, 3.137, 6.18). In addition it is de facto coherent with the special way of recording *goods under merchanting* in NA/BoP (negative exports). Applying the latter in physical terms leads to the situation that *goods under merchanting* physically balance out in the trade balance of the resident country of the merchant. For physical imports and exports nothing like a price difference exists and the physical net-export is equal to zero. This implies that *goods under merchanting* balance out to zero in a physical trade balance and can be hence excluded from EW-MFA.

## 4 References

### EW-MFA, environmental-economic accounting

- [Economy- wide material flow accounts and derived indicators - A methodological guide, 2001 edition](#)
- [System of environmental-economic accounting central framework \(SEEA-CF\)](#)
- [Economy-wide Material Flow Accounts \(EW-MFA\), Compilation Guide 2013](#)

### International trade statistics

- Eurostat dedicated section '[International trade in goods](#)'
- [FAQs on International trade in goods](#)
- UNSD [International Merchandise Trade Statistics \(IMTS\)](#) – Methodology

### Globalised production chains


- [UNECE: Guide to Measuring Global Production](#)

### National accounts and balance of payments

- Eurostat dedicated section on [ESA 2010](#)
- Eurostat methodology sub-section of [National accounts \(including GDP\)](#)

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<sup>13</sup> The Working Group on Environmental Accounts agreed with this recommendation at its meeting 3-4 May 2017.

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- [Manual on goods sent abroad for processing - 2014 edition](#)
  - [Note on foreign trade reported by non-residents \(2015\)](#)
  - Eurostat dedicated section '[Balance of Payments](#)'
  - IMF [Balance of Payments and International Investment Position Manual – BPM6](#)

#### Energy statistics

- Eurostat dedicated section '[Energy](#)'
- [Energy Statistics Manual](#) (by OECD, IEA and Eurostat)
- [International Recommendations for Energy Statistics – IRES](#)

## Annex 1: Types of trade transactions and their treatment in various statistical domains

Section in this note	Term (type of transaction)	Description of transaction (from the viewpoint of reporting Member State)	Change in ownership between a resident unit of the reporting Member State and a non-resident?	Physically crossing borders of the reporting Member State	Treatment in EU ITGS	Treatment in NA/BoP	Treatment in EW-MFA
3.1	Regular intra EU trade; free circulation	Goods traded between EU Member States (ownership changes between respective MS resident units)  notably goods sent for processing are excluded	yes	yes	included	included	included
3.2	Regular extra EU trade	In: Non-Community good owned by non-resident flows from rest of the world into reporting Member State where a resident unit obtains ownership  Out: Community good owned by resident unit of the reporting Member State flows to the rest of the world where a non-resident obtains ownership  notably goods sent for processing are excluded	yes	yes	included	included	included
3.3	Re-export	In: Community or non-Community good is physically imported by a resident unit of the reporting Member State (whereby the latter obtains ownership) with the intention to re-export it  Out: the very same good is physically exported without any transformation/processing by the very same resident unit of the reporting Member State (whereby ownership changes to a non-resident unit)	yes	yes	included	included	included (Eurostat proposal)
3.4	(Simple) Transit	A good is simply transported through the territory of the reporting Member State	no	yes	excluded	excluded	excluded

Section in this note	Term (type of transaction)	Description of transaction (from the viewpoint of reporting Member State)	Change in ownership between a resident unit of the reporting Member State and a non-resident?	Physically crossing borders of the reporting Member State	Treatment in EU ITGS	Treatment in NA/BoP	Treatment in EW-MFA
3.5	Quasi transit	<p>In: Non-community good entering the reporting Member State in which custom clearance is performed by a non-resident before good is forwarded to another Member State</p> <p>Out: Community good arrives (from another Member State) in reporting Member State in which custom-release is performed by a non-resident unit for export to Non-EU country (non-resident)</p>	no	yes	included	<p>excluded</p> <p>Note that the price difference (margin) is recorded as an import of services</p>	excluded
3.6	Goods sent abroad for processing	<p>In: (1) A resident unit of the reporting Member State receives a good from a non-resident sitting in another Member State or rest of the world for processing without any change of ownership (and with the intention to send it back to the owner)</p> <p>In: (2) A resident unit of the reporting Member State receives a processed good from a non-resident sitting in another Member State or rest of the world which he already owns and which he had sent for processing earlier</p> <p>Out: (1) A resident unit of the reporting Member State sends back a good to a non-resident sitting in another Member State or rest of the world which he had obtained for processing and of which he never had ownership</p> <p>Out: (2) A resident unit of the reporting country sends a good to a non-resident sitting in another Member</p>	no	yes	included	excluded	included

Section in this note	Term (type of transaction)	Description of transaction (from the viewpoint of reporting Member State)	Change in ownership between a resident unit of the reporting Member State and a non-resident?	Physically crossing borders of the reporting Member State	Treatment in EU ITGS	Treatment in NA/BoP	Treatment in EW-MFA
		State or rest of the world for processing without any change of ownership					
3.7	Goods and services (e.g. fuel) purchased by residents outside the territory  -----  Goods and services (e.g. fuel) sold to non-residents on the territory	In: Resident unit of the reporting Member State purchases goods and services (e.g. fuel) outside the territory of the reporting Member State  -----  Out: Resident unit of the reporting country sells goods and services (e.g. fuel) to non-residents on the territory of the reporting Member State	yes, in any case	no, in any case	excluded in any case	included in any case	included in any case
3.7	Goods delivered to vessels/ aircraft  = special case of previous in ITGS	In: A resident unit of the reporting country owns a vessel/aircraft to which goods are delivered while the vessel/aircraft is placed outside the territory of the reporting Member State  -----  Out: A resident unit of the reporting Member State delivers goods to vessels/aircraft placed on the territory and owned by non-resident	Yes, in case the owner is also operator  -----  Yes, in the case the operator of the vessel/aircraft is a non-resident  No, in the case the operator of the vessel/aircraft is a resident unit of the reporting Member State	no  -----  no	Excluded  -----  included	included, if the owner is also operator  -----  included if the operator is non-resident	included, if the owner is also operator  -----  included if the operator is non-resident

Section in this note	Term (type of transaction)	Description of transaction (from the viewpoint of reporting Member State)	Change in ownership between a resident unit of the reporting Member State and a non-resident?	Physically crossing borders of the reporting Member State	Treatment in EU ITGS	Treatment in NA/BoP	Treatment in EW-MFA
3.8	Goods under merchanting	Resident of the reporting Member State purchases a good from a non-resident and sells it to a non-resident without the good touching the ground/territory of the reporting Member State	yes	no	excluded	Included (BPM6, para.11.29)  (inward flows are recorded as negative exports)	excluded (Eurostat proposal)