

**Workshop on
Trade in
Services and
Digital Economy
Statistics for
Mongolia**

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Session 13

**Measuring services transactions
between residents and non-
residents: special cases**

Freight Transport services

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1. Introduction

Transport

- Transport is defined in MSITS 2010 as covering **services provided by all modes of transportation performed by residents of one economy for those of another.**
- Even if each of the transport modes poses specific collection problems, the general features are very similar. That is why this analysis concentrates on the **functional categories** (freight, passengers, auxiliary transport services).
- Transport also includes **postal and courier services** (new in BPM6) which are not covered in this presentation

Transport in EBOPS 2010

- **3.1 Sea transport**
 - 3.1.1 Passenger
 - 3.1.2 Freight
 - 3.1.3 Other
- **3.2 Air transport**
 - 3.2.1 Passenger
 - 3.2.2 Freight
 - 3.3.3 Other
- **3.3 Other modes of transport**
 - 3.3.1 Passenger
 - 3.3.2 Freight
 - 3.3.3 Other
- **3.4 Postal and courier services**

Transport definition

- **Transport can be classified according to:**
 - **Mode of transport:** sea, air and other (rail, road, inland waterways, pipeline, space transport, electricity transmission).
 - **Functional categories** (or type of transport): transport includes the carriage of passengers and the movement of goods (freight), as well as rentals (charters) of carriers with crew.
 - **Related supporting and auxiliary services**, such as cargo handling charges, navigation fees, storage and warehousing, towing... are also included.

2. Freight services

Conventions for freight recording

- **Freight is closely linked to the goods component**
 - Measurement of freight on goods exports and imports is affected by the convention that goods are valued FOB at the customs frontier of the exporting economy.
 - All freight costs up to the customs frontier to be treated as incurred by the exporter; all freight costs beyond that point to be treated as incurred by the importer.
 - Amount recorded under service import should be that paid by resident importers to non-residents carriers.
 - Amount recorded under service export should be that paid to resident carriers by non-resident importers.

Conventions for freight recording

- **Freight cost may be paid directly or indirectly by the importer, depending of the terms of delivery**
 - A **direct payment** corresponds to an invoice for transport.
 - An **indirect payment** consists in taking out the transport cost out of the CIF value of the merchandise.
- **Terms of delivery**
 - Ex-works,
 - FOB
 - CIF
 - DDP ...

2.1. Freight services: treatment of the various configurations

Freight provided by the compiling economy (1)

- **Freight services provided in connection with exports**
 - On behalf of the **resident exporter** (CIF contract)
 - Goods sold all-inclusive; transport paid by exporter (R/R)
 - The transportation cost has to be reallocated to the importer
 - Indirect payment

Service Producer ® —————> Exporter ® —————> Importer (NR)

- On behalf of the **non-resident importer** (FOB contract)
 - The importer pays the transport (R/NR)

Service Producer ® —————> Importer (NR)

- Direct payment

Freight provided by the compiling economy (2)

- **Freight services provided in connection with imports**
 - On behalf of the **non-resident exporter** (CIF contract)
 - Goods sold all-inclusive; transport paid by NR exporter (R/NR)
 - The transportation cost has to be reallocated to the importer
- Service Producer ® ➡ Exporter (NR) ➡ Importer (R)
- Indirect payment
 - On behalf of the **resident importer** (FOB contract)
 - R/R
 - Not a BOP transaction

Freight acquired by the compiling economy (1)

- **Freight services acquired in connection with exports**
 - On behalf of the **resident exporter** (CIF contract)
 - Goods sold all-inclusive; transport paid by R exporter (NR/R)
 - The transportation cost has to be reallocated to the NR importer

Service Producer (NR) → Exporter ® → Importer (NR)

 - Indirect payment- On behalf of the **non-resident importer** (FOB contract)
 - The non-resident importer pays the transport (NR/NR)

Service producer (NR) → Importer (NR)

Freight acquired by the compiling economy(2)

- **Freight services acquired in connection with imports**
 - On behalf of the **non-resident exporter** (CIF contract)
 - Goods sold all-inclusive; transport paid by NR exporter (NR/NR)
 - The transportation cost has to be reallocated to the importer

Service Producer (NR) → Exporter (NR) → Importer (R)

 - Indirect payment
 - On behalf of the **resident importer** (FOB contract)
 - The importer pays the transport (R/NR)
 - Direct payment

Freight transactions

Non-resident carrier		Resident carrier	
Imports FOB	Imports CIF	Imports CIF	Imports FOB
<p>Recording of a transport expenditure (separate transport invoice): direct payment</p> <p>(4)</p>	<p>Recording of a transport expenditure (estimate of the transport included in the goods): indirect payment</p> <p>(6)</p>	<p>Nothing to be recorded in the BOP (R/R). The NR exporter is paid for the total amount of the invoice (goods + transport) and pays the carrier (receipt): need of an offsetting entry</p> <p>(8)</p>	<p>Nothing to be recorded in the BOP (R/R)</p> <p>(2)</p>
Exports FOB	Exports CIF	Exports CIF	Exports FOB
<p>Nothing to be recorded in the BOP (NR/NR)</p> <p>(1)</p>	<p>Nothing to be recorded in the BOP (NR/NR). The R exporter is paid for the total amount of the invoice (goods + transport) and pays the carrier (expenditure): need of an offsetting entry</p> <p>(7)</p>	<p>Recording of a transport receipt (estimate of the transport included in the goods): indirect payment</p> <p>(5)</p>	<p>Recording of a transport receipt (separate transport invoice): direct payment</p> <p>(3)</p>

Offsetting entry: an example

- An amount of goods exports of 1000 with a share of CIF contracts of 50% and a CIF/FOB rate of 4%: means that there is 20 (500×0.04) of transportation services in the invoice of 1000.
- We suppose that 8 has been pre-paid by the exporter to a non-resident carrier and 12 corresponds to a transport receipt with a resident carrier; the amount of 8 which should not be recorded in the BOP (NR/NR) is offset by part of the FOB/CIF conversion (8).

	Credit	Debit
- Goods exports	980	
- Transportation		
• Record of payment		8
• Fobisation (of which R) (of which NR)	20 (12) (8)	

2.2. Freight services: Use of an ITRS

Use of an ITRS for data collection

- With an ITRS data collection system, the reporting is done mainly by the direct reporting **companies** and by the **banks** on behalf of their clients.
- Reports represent the **amounts paid directly** between a resident transportation enterprise and a non-resident importer and vice-versa.
- The **adjustment to the FOB-FOB value**, applying the recommendations of the Manual, is done using the foreign trade data and the customs data relating to the CIF-FOB ratio. This adjustment is added to the amount paid directly

Transportation settlements

- Transportation settlements relate on the **debit side**:
 - To the recording of the transport expenditure linked to **imports FOB** with NR carriers (2.c)
 - To **exports CIF** with a NR carrier, as the exporter prepays the carrier (2.b).
- Transportation settlements relate on the **credit side**:
 - To the recording of receipts linked to **exports FOB** as the transportation is directly settled by the importer to a resident carrier of the compiling economy (1.d).
 - To the recording of receipt linked to **imports CIF**, as the NR pays the resident carrier (1.a).
 - To services connected with **cross-trade** and **transportation within third countries**.

Transportation settlements (2)

	Receipts		Expenditures	
	Operations recorded	Sources	Operations recorded	Sources
<i>1-Resident carriers</i>				
a. Imports CIF	XXX	RP	XXX	CIF/FOB
b. Exports CIF	XXX	CIF/FOB	----	----
c. Imports FOB	----	----	----	----
d. Exports FOB	XXX	RP	----	----
<i>2-Non-resident carriers</i>				
a. Imports CIF	----	----	XXX	CIF/FOB
b. Exports CIF	XXX	CIF/FOB	XXX	RP
c. Imports FOB	----	----	XXX	RP
d. Exports FOB	----	----	----	----

- RP for records of payment
- « Fobisation » of goods settlements or goods transactions

2.3. Freight services: Fobisation of Trade data

Goods transactions: from CIF to FOB

- Goods transactions compiled on an invoice basis include a part of **ancillary costs** which has to be estimated and allocated to the services account.
- The amount of transportation included in the invoice value of exports and imports results from the following equation:

Imputed transportation= *invoice value of goods (1) x share of CIF contracts (2) x CIF-FOB ratio (3)*

- (1) Customs reporting
- (2) From terms of delivery
- (3) Calculation by the customs administration

CIF-FOB ratio: Use of Customs declarations

When both the statistical value and the invoice value are reported, the CIF/FOB ratio can be estimated by the comparison of the two values of exports and imports (source: customs administration).

- **Invoice value (IV):** selection of CIF exports and of FOB imports contracts (corresponds to the value at the border of the foreign partners of the compiling economy).
- **Statistical value (SV):** the value at the border of the compiling economy.
- The ratio of IV to SV gives in theory the share of transportation and insurance fees included in IV.

CIF-FOB ratio: use of survey

Annual or occasional survey of enterprises involved in exports and imports: provides the transportation included in the invoice value of merchandises.

- ***Stratification of the sample***: exports, imports, partner countries or zones, transportation modes.
- ***Pre-filled questionnaire***: day of transaction, product, origin or destination, terms of delivery, invoice value and statistical value.
- ***The questionnaire asks for***: transportation mode, nationality of the carrier, amount of transportation split between the one inside the country of origin (1), international transport (2), and inside the country of destination (3).

CIF-FOB ratio (3)

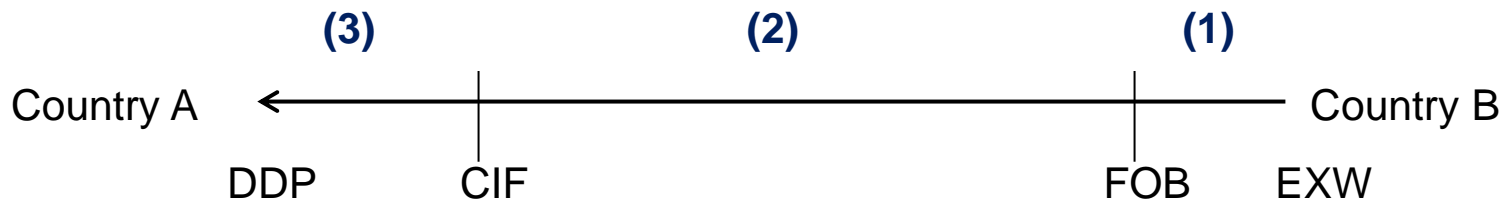
Taking the example of the **imports side**

- *With an ex-work contract (EXW), the importer of country A has in principle the knowledge of the three legs (1), (2) and (3) or of the total transport*
- *With a FOB contract, knowledge of legs (2) and (3)*

$$\text{EXW: } SV = \text{EXW} + (1) + (2)$$

$$\text{FOB: } SV' = \text{FOB} + (2')$$

$$\text{CIF/FOB rate} = (2) + (2') / SV + SV'$$



The CIF/FOB rate should be calculated by broad categories of goods, partner country and by mode of transport

2.4. Freight services: Surveys and data modelling

Transportation surveys

- Surveys of transport enterprises may be a good choice when, as it is often the case, a large share of transactions is concentrated on a small number of companies.
 - *Resident carriers* can provide freight data on exports
 - *Branch offices or agents of non-resident carriers* can provide freight data on imports
- Questionnaires need to include information on imports, exports and other transportation as these transactions must be treated differently in the BOP:
 - *Transportation of imports* by resident operators not recorded but may be used indirectly to compile freight earned by non-resident operators (debit).
 - *Transportation of exports* (credit).

Data modelling based on freight rates

- Another method consists in selecting a set of appropriate freight rates to be combined with the exports and imports volume data obtained from foreign trade statistics.
- This approach is mainly based on administrative data and is very demanding:
 - Requires detailed data on effective freight rates (not listed prices) per tonnage, in national currency
 - For each group of merchandises
 - By mode of transport
 - By region of origin and destination
- Matching the freight rates with the corresponding trade volumes may be very difficult.

5. Data collection examples

UK data collection on Freight

- **Import side**
 - **CIF-FOB adjustment** to merchandise (using tonnage, commodity, mode of transport by country of origin and freight rates) applied to the tonnages matrices, used to determine the total cost of transportation between the border of exporting countries and the UK border.
 - **Transport operators are surveyed** to determine that part of total freight associated with imports which is carried by UK operators.
 - This part is deducted from the total transport to derive transportation services on imports performed by foreign operators.
- **Export side**
 - Receipts from freight on exports and cross-trade are obtained from the **surveyed resident operators**.

French data collection on Freight

- The transportation data collection is based on **direct reporting and surveys** from companies.
 - **Direct reporting** of individual transactions from major resident companies and branches of non-resident operators, is done on a regular basis, based on invoices.
 - **Surveys** of SMEs is done on a yearly basis.
- **The reporting companies declare:**
 - On the **debit** side: operations with NR carriers, related to imports FOB (in case the R importer pays a NR carrier), and exports CIF (in case the R exporter prepays a NR carrier).
 - On the **credit** side: operations of R carriers with NR companies related to exports FOB (the NR importer pays the R carrier), and imports CIF (the NR exporter uses the services of a R carrier).

French data collection on Freight

- **Adjustment to the FOB-FOB value** is done using both the foreign trade data and the customs data relating to the CIF-FOB ratio, the terms of delivery and the percentage of the different modes of transport.
- **CIF-FOB ratio** estimated every 4-5 years using a survey done by the customs administration.
 - Based on a **sample** of 15 000 exporting and importing companies.
 - The survey collects **information** on: transportation mode, nationality of the carrier, origin and destination country, terms of delivery, amount of transportation cost.
 - The **combination of the direct data collection and of the “Fobisation” method** allows to fully cover all the cases of imports and exports, whatever the types of contracts.

Thank You