

# Challenges in compiling price and volume measures related to global production

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# Deflation process - recommendations

- Deflation should take place at product level (ref Eurostat's Handbook on prices and volume measures in national accounts, 2016, chapter 2)
- Reason for choosing product approach: prices and volumes are first of all observed for products
- Double deflation: output and intermediate consumption (by product) deflated separately
- (tool: supply and use table framework)

# Regarding goods for processing - recording

- Goods sent for processing abroad from country A
  - Domestic production in country A equals total sales value of the goods,
  - The service fee from the foreign supplier recorded as intermediate consumption in A (service)
  - Export from A: The goods sent abroad for processing are not recorded in the trade data until they are “finally” exported (change ownership)
  - Import to A: Service fee

# Regarding goods for processing and merchanting ... cont

- In theory this gross recording will not influence value added (compared to recommendations in the 1995 SNA),
- Neither will net export be influenced
- At least this is the case for current prices
- **What about constant price estimates?**

# Constant price estimations - challenges/questions

- Which price indices should be used?
- Do the domestic PPI cover the “production” properly?
- Export prices – should be aligned with the PPI. Does the relevant price indices cover the new concept of not recording exports until the change of ownership takes place?
- And how do we collect the price index of the service fee (import/intermediate consumption in A)?

# Constant price estimations .....cont

- What is a suitable SPPI for the service fee (either you need it for import and intermediate consumption in A or you need it for production and export in the processing country B)?
- The challenges of finding a suitable price index are discussed in Eurostat's handbook chapter 3.9.3.
- To sum up: deflating with the domestic PPI does not reflect the total volume growth in production (as it is constructed today) and it is difficult to achieve a proper SPPI for the service fee
  - Hence, **value added at constant prices will be affected** (compared to the "old" system)
  - And what about the relevance and interpretations of productivity analysis?

# Merchanting

- Same challenges or even larger?
- According to the new recommendations: Both purchases and sales of merchanted goods are recorded under exports
  - Purchases are shown as negative exports of goods
  - Sales are shown as exports of goods
  - Net export is not affected in current prices (compared to the “old” recommendations), only the recording of goods and services respectively
  - In the production account output should be equal to “trade margins” (and equal to net exports of the goods)

# Merchanting ..... cont

- How can the country where the merchant is resident, receive relevant prices to be used for double-deflation?
- Challenges are discussed in Eurostat's handbook, chapter 3.9.2
  - Eurostat points out that it is important to use the same price index for both the sales and the purchases (to avoid biases)
- This is more or less similar to only deflate the net export (equal to the trade margin)
  - However, a price index is needed – which index (and should we require same result as if sales and purchases are deflated separately?)



# For discussion

- What do countries do, both regarding goods for processing and goods for merchandising?
- Where do you find appropriate price indices for the double-deflation?
- In general, how do you find good price indices for import of services (challenges are not only related to merchandising and goods for processing)?
- Do we need further work (international cooperation) in this field, or do you find that Eurostat's "Handbook on prices and volume measures in national accounts" gives all the necessary recommendations?