

# **Cooperation projects of the Deutsche Bundesbank and Destatis in the field of Global Production**

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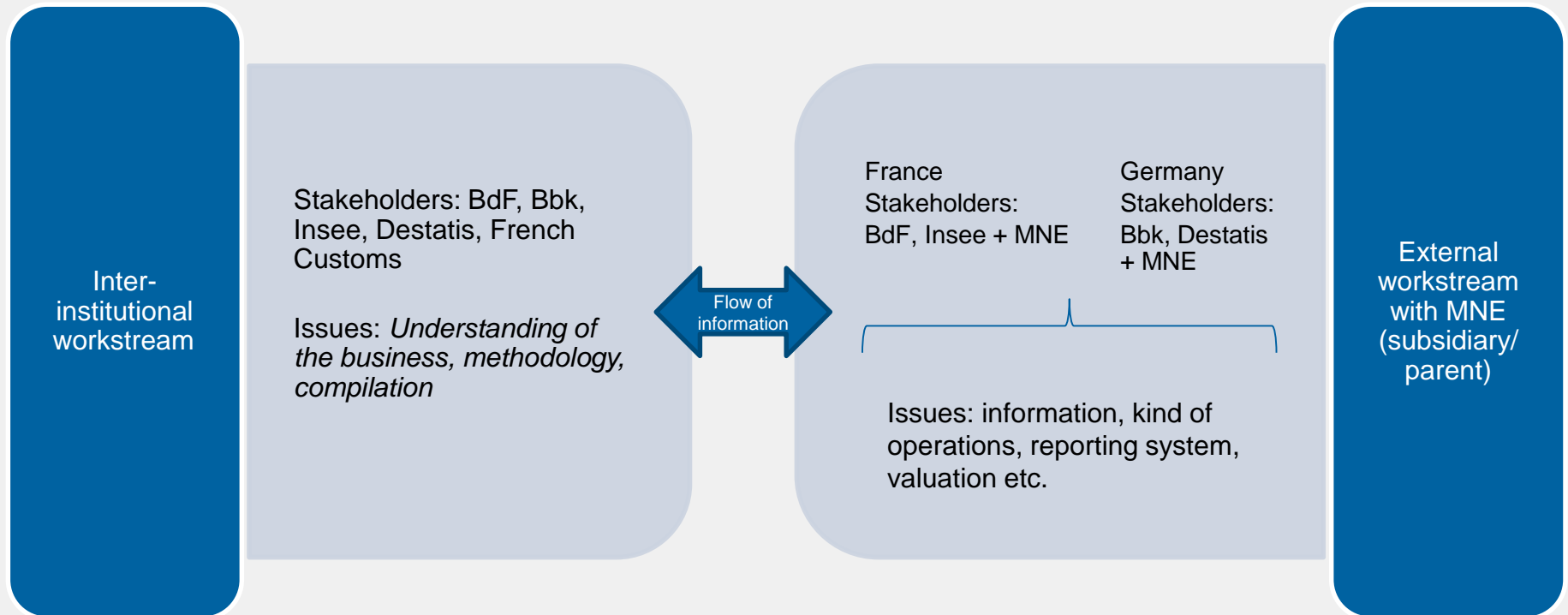
# I. Motivation to improve cooperation between institutions

- Removal of restrictions on the movement of capital, dismantling of trade barriers by the World Trade Organisation's GATT and GATS agreements, decreasing transport costs and progress in information technologies have allowed companies to organize their production activities as a transnational process.
- Adequately capturing these activities in macroeconomic statistics is a challenging issue for all compilers around the globe.
- Measuring the relevant flows of goods and services consistently in national statistics like BOP, FTS or NA requires continuous and close cooperation of national statisticians.
- Therefore, Destatis and the Deutsche Bundesbank strengthened their cooperation in this regard, setting up two projects to better understand and capture cross-border production arrangements and to close possible data gaps.

## II. Project 1 (1/4)

### Sharing data reported by complex multinational enterprises

- The project was set up by the Banque de France and the Bundesbank with all relevant national statistical stakeholders to better measure and understand intra group flows of MNEs
- Organization in two workstreams:



## II. Project 1 (2/4)

### Sharing data reported by complex multinational enterprises

#### Details of Workstream II

#### Germany

External  
workstream  
with MNE  
(subsidiary /  
parent)

- Detect anomalies in reported data of the MNE
- First discussion with experts of related statistics (FTS, NA)
- Contact national MNE (explaining the issue)
- Meeting with the MNE and all institutional stakeholders
- Agreement with MNE to exchange confidential information between institutions (very important!)
- Clarification of the production chain inside the group
- Organization of the MNE reporting system

## II. Project 1 (3/4)

### Sharing data reported by complex multinational enterprises

#### Details of Workstream II Germany

External  
workstream  
with MNE  
(subsidiary/  
parent)

- Explanation of statistical treatment of the intra group flows (processing, final export/import, merchanting, valuation, institutional units)
- Documentation of new insights for workstream I
- Addressing questions from workstream I
- Final meeting with MNE and institutional stakeholders to agree on future reporting and corrections for backward revisions (BOP, FTS)
- Discussion of technical aspects i.e. time to change computer systems to fulfil the „new“ requirements by the MNE
- Agreement on the date to start with revised reporting

## II. Project 1 (4/4)

### Sharing data reported by complex multinational enterprises

Outcome:

- Exchange of views between all statistical stakeholders on national and international level fosters the understanding of MNE activities
- The cooperation was eased by the agreement of the MNE to exchange confidential information between national institutions
- Insights into the group's operations, its international production arrangements and internal transfer pricing agreements help to improve statistical reporting in a consistent and coherent way in all statistics
- Several issues of misreporting could be detected and corrected, especially in the context of manufacturing services in BOP and processing in FTS (e.g. goods after processing not returned to the country of the owner being reported in FTS as final sales)

### III. Project 2 (1/8)

## Identification of data gaps in manufacturing services/processing

Deutsche Bundesbank and Destatis launched this project in 2018 to link microdata in order to cross-check their respective reporting populations

- Project was conducted in three phases
  1. Clarification of the legal situation
  2. Linking test data to get an initial impression of the reporting populations
  3. Deep dive into major companies which report manufacturing service fees under the BOP system

### III. Project 2 (2/8)

## Identification of data gaps in manufacturing services/processing

### Legal situation

- Exchange of microdata between members of the European Statistical System (ESS) and the European System of Central Banks (ESCB) is currently not regulated symmetrically
- BOP Statistics: Council Regulation (EC) No 2533/98 allows members of the ESCB (Bundesbank) to transmit microdata to the members of ESS (Destatis)
- Transmission of confidential information from Destatis to the Bundesbank lacks a corresponding legal basis (EU FTS regulations do not foresee an exchange of data)  
➡ national law applies ➡ no permission!



### III. Project 2 (3/8)

## Identification of data gaps in manufacturing services/processing

#### Implications:

1. Linking of microdata to reconcile the reporting populations from both sets of statistics could only be conducted within the FTS division
2. Project had to focus on companies which report manufacturing service fees to the Bundesbank
3. Secondment from the Deutsche Bundesbank to Destatis was necessary
4. Information on companies identified that report BOP statistics but whose reports are incorrect cannot be transmitted to the BOP Division of the Bundesbank

### III. Project 2 (4/8)

## Identification of data gaps in manufacturing services/processing

### Data linkage

- General assumption: it is expected that companies which report flows of goods to FTS also report the related manufacturing services to BOP statistics.
  
- Linkage Problems:
  - reporting entities submit their reports to the respective statistics under different I identifiers
  
  - to link these identifiers the Destatis Business Register was used: namely the business register number or the name and address
  
  - Particular feature: reporting by different statistical units!
    - in BOP statistics the legal unit has to report,
    - whereas in FTS the legal unit **or** the head of the VAT group is obliged to report
  
  - Further conceptual deviations in populations must be considered
    - factoryless producers of goods whose goods do not cross the resident border
    - withdrawals i.e. goods do not return to the country of the principal

Therefore, number of companies reporting BOP > number of companies reporting to FTS

### III. Project 2 (5/8)

## Identification of data gaps in manufacturing services/processing

### Results:

#### 1. Overall, total values fit quite well

- In Inward processing: invoice value (FTS) EUR 1,584 million > manufacturing fees (BOP) EUR 1,356 million
- Outward processing: invoice value (FTS) EUR 2,627 million > manufacturing fees (BOP) EUR 2,619 million

At first sight, results suggest that goods which cross the border for processing fully return to the member state of the owner

- **Is this the reality? A closer look is needed!**

#### 2. Matching rates have been low

- Inward processing: 7 out of 43 companies (16%)
- Outward processing: 29 out of 63 companies (46%)

### III. Project 2 (6/8)

## Identification of data gaps in manufacturing services/processing

### Enterprise-level analysis

- Reference value: match between FTS and BOP statistics

	invoice value (FTS) ≥ manufacturing service (BOP)		invoice value (FTS) < manufacturing service (BOP)	
	Good fit* 50 % - 60 %	Bad fit* > 60 %	Good fit* 40 % - 49 %	Bad fit* < 40 %
Inward processing	3 out of 7	2 out of 7	n. a.	2 out of 7
Outward processing	7 out of 29	7 out of 29	6 out of 29	9 out of 29

- $$fit = \frac{\text{invoice value (FTS)}}{\text{manufacturing service (BOP)} + \text{invoice value (FTS)}}$$

Right side of the table shows that the first sight hypothesis – all goods return – has to be rejected!

### III. Project 2 (7/8)

## Identification of data gaps in manufacturing services/processing

#### Contacting enterprises

- Finding technical, methodological or qualitative explanations for the low matching rates
- Focus on 20 major companies which report manufacturing service fees under the BOP system for each direction
- 18 out of 20 inward processors and 13 out of 20 outward processors were contacted via telephone

Inward processing		Outward processing	
Number of companies	Reason	Number of companies	Reason
17	methodological	2	False reporting FTS
1	couldn't be analysed	1	False reporting BOP
		1	BOP threshold
		9	methodological

### III. Project 2 (8/8)

## Identification of data gaps in manufacturing services/processing

### Outcome

- Given the legal situation a full-fledged analysis of the reporting population was difficult
- But legal restriction could partly be solved by secondment of a Bundesbank staff member to Destatis
- The investigation revealed two major causes of differences in the reporting populations/values:
  1. The reporting populations are not completely identical due to specific VAT rules
  2. Resident traders as well as non-resident traders (VAT registered businesses) use incorrect transaction codes for purchases/sales instead of processing
- Furthermore, the investigation confirmed that processed goods often do not return after processing but are sold to third countries / country of processing, thus processing in FTS < manufacturing services in BOP

## IV. Conclusions

- Cooperation between national statistical institutions is of utmost importance to guarantee a consistent recording of global production arrangements in all relevant statistics
- Cooperation and data exchange can help to detect data gaps as well as incorrect application of reporting rules by reporters
- Legal obstacles can be overcome by solutions like secondment between institutions
- Common meetings of all stakeholders with reporters improve their understanding of statistical needs and interdependencies between various statistics to be reported by different units of the group. Furthermore, it fosters the internal communication between the group members in different countries.
- Implementation of a common identifier like the LEI on national and international level could improve the data linkage