



Ninth IFC Conference on “Are post-crisis statistical initiatives completed?”

Basel, 30-31 August 2018

## Sharing of data reported by complex multinational enterprises: a cooperative approach between Deutsche Bundesbank and Bank of France<sup>1</sup>

Tatiana Mosquera Yon, Bank of France  
and Jens Walter, Deutsche Bundesbank

---

<sup>1</sup> This paper was prepared for the meeting. The views expressed are those of the authors and do not necessarily reflect the views of the BIS, the IFC or the central banks and other institutions represented at the meeting.

# Sharing of data reported by complex multinational enterprises: a cooperative approach between Deutsche Bundesbank and Banque de France

Tatiana Mosquera Yon (Banque de France) and Jens Walter (Deutsche Bundesbank)

## Abstract

The financial crisis raised concerns about the worldwide interconnectedness of financial institutions and their ability to finance the economy. In the real economy, multinational enterprises generate more and more economic and financial flows due to their international organisation. In order to better understand and explain the contribution of multinational enterprises in their Balance of Payments (BoP), France and Germany undertook a common work on large and complex multinational enterprises operating in the two countries. Based on two work streams: an inter-institutional and an external one (in collaboration with the multinational enterprises), implying exchange of confidential information between institutions, this analysis improved the knowledge on the multinational enterprises involved. It underlined the increasing importance of intra-group real and financial flows that, thanks to this work, will be more coherently recorded in the BoP of the two countries and can be better explained in the future.

Keywords: Multinational enterprises, balance of payments, complex global production arrangements, international fragmentation of production process

JEL classification: F23, F60, M00

## Contents

Sharing of data reported by complex multinational enterprises: a cooperative approach between Deutsche Bundesbank and Banque de France.....	1
1. Motivation for a bilateral analysis by Deutsche Bundesbank and Banque de France.....	3
Links between multinational enterprises and globalisation.....	3
Location of economic ownership in MNE-Groups.....	3
Overview of the MNEs involved in the work stream.....	5
2. Cooperation between Banque de France and Deutsche Bundesbank.....	6
The inter-institutional work stream.....	6
The external work stream with MNEs.....	7
Conclusions.....	9
References.....	10

# 1. Motivation for a bilateral analysis by Deutsche Bundesbank and Banque de France

## Links between multinational enterprises and globalisation

Multinational enterprises (MNEs) are the key drivers to the globalisation process in the last decades. International flows are increasing in amount and frequency as MNEs grow. They enhance the interconnectedness of the countries where they operate but also the competition among countries willing to attract them as investors to stimulate economic growth and employment.

The removal of restrictions on the movement of capital, the lowering of trade barriers by the World Trade Organisation GATT and GATS<sup>1</sup> agreements, sinking transport costs and the improvement of information technologies have allowed companies to relocate their production activities to even more remote places around the globe. This all has led to a steady growth in the number of MNEs which in turn intensify the globalisation process. New markets are created, new production chains being established leading to the birth of new leaders. A well-known example is the global production of the I-phone or the development of the digital market which led to the emergence of new actors such as Apple, Amazon, or Google. Their economic development relies on the possibilities offered by globalisation allowing them to grow faster by reaching more customers and to offer more products.

The understanding of the global thinking of MNEs - which are mainly driven by tax minimisation and profit maximisation at a global level - is of utmost importance for politicians today. An adequate statistical measurement of MNEs induced international flows of capital, goods, services and intellectual property is a prerequisite to assess the consequences of national economic and financial policies for employment, income and wealth. Thus, the comprehensiveness of all statistics affected by MNE decisions like the Balance of Payments (BoP), National Accounts (NA) and Business Statistics (BS) are necessary to establish efficient economic, trade or fiscal policies.

Relevant statistics are also important to produce more sophisticated indicators on globalisation, global value chain and international fragmentation of the production process. To give the best information, these indicators need to be produced with high quality data that can only be compiled if the contribution of MNEs is clearly identified.

## Location of economic ownership in MNE-Groups

In the International Monetary Fund (IMF)'s sixth edition of balance of payment manual (BPM6), the time of recording of transactions is based on the change of ownership. *"The change of economic ownership is central in determining the time of recording on an accrual basis for transactions in goods, non-produced non-financial assets, and financial assets"*<sup>2</sup>.

---

<sup>1</sup> GATT: General Agreement on Tariffs and Trade. GATS: General Agreement on Trade in Services.

<sup>2</sup> Paragraph 3.41 of BPM6, p.55.

In the case of MNEs, the BPM6 specifies that *"goods may move between a parent and its branch abroad. In that case, possibilities exist that either the goods have changed economic ownership or they may have been sent for processing. The correct statistical treatment is to identify which location assumes the risks and rewards of ownership most strongly (e.g., from factors such as whether the goods are included in the accounts, and which location is responsible for subsequent sale of the goods)"*<sup>3</sup>. For BoP compilers, it is a real challenge to identify which entity assumes risks and rewards in an MNE-Group. It requires having a precise and complete knowledge of how the MNE is organized and operates.

Although the BPM6 gives in several paragraphs (e.g. paragraph 5.3) some guidance for compilers to identify the economic owner inside a group, the explanation of the concept of economic ownership versus legal ownership to their MNEs' correspondents is however not a simple and often time consuming task.

Once this definition is explained, it becomes important to analyse the organisation of MNEs to identify which entity assumes the risk and rewards. There may be several entities or just one, depending on how the MNEs is organised. In the MNEs involved in the analysis, the identification of the economic owner of the produced goods and services was a challenge. Their very complex organisation and the multiple flows between the entities of the group did not allow an unambiguous identification of the economic owner, despite the characteristics given by the BPM6.

When the economic owner is identified inside the group, it can have impact on BoP compilation since goods may be delivered from Germany, which is recorded in Foreign Trade Statistics (FTS), but sold by the economic owner located in France. Under such circumstances, the export must be reported in France outside the FTS source and to FTS in Germany, using a code which indicates that the goods are not owned by the exporter.

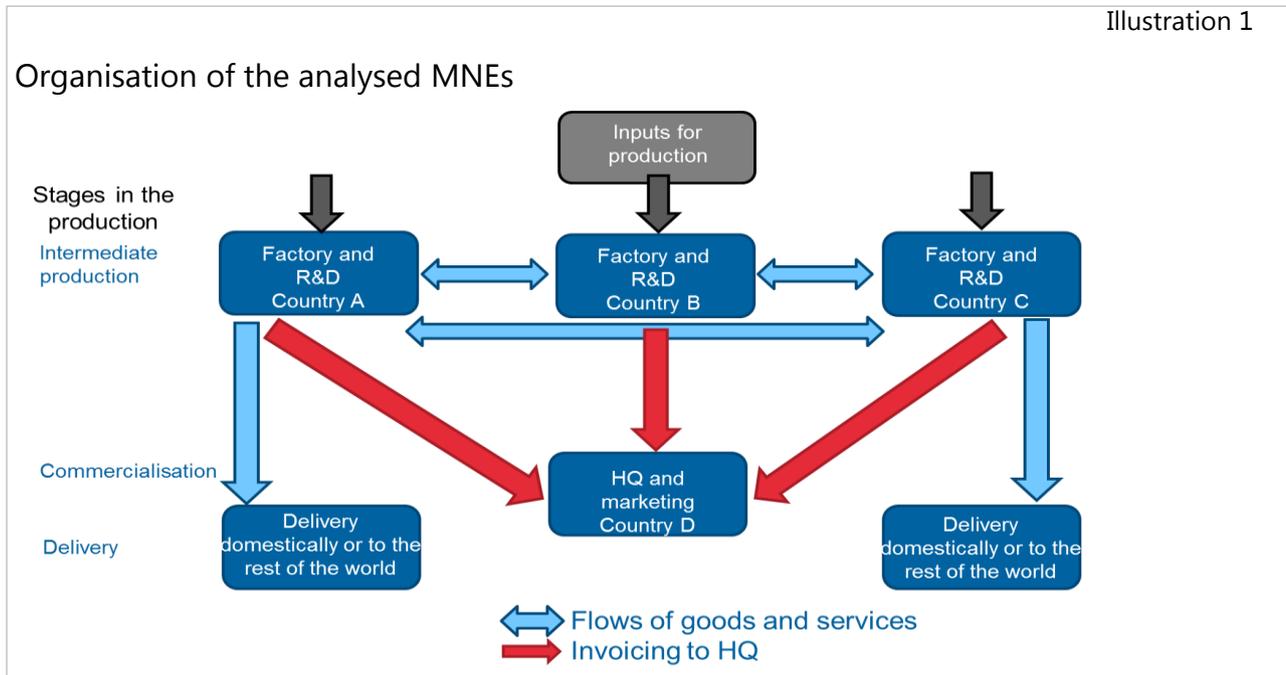
Once these flows are clearly explained by the MNEs, it becomes relevant to share the information with colleagues from the counterpart countries to make sure that the flows are treated in the same way and reported symmetrically in FTS and BoP.

---

<sup>3</sup> Paragraph 3.46 of BPM6, p 56.

## Overview of the MNEs involved in the work stream

The structure of the MNEs involved in the analysis can be schematized as shown below (see illustration 1).



The affiliates are operating in different countries inside or outside the European Union. At least, one affiliate is established in France and in Germany. The affiliates exchange goods (semi-finished products) and services (use of intellectual property) and invoice each other at transfer prices (that can be agreed in an Advanced Price Agreement with the tax authorities of the countries). Thus, flows can occur between different countries or domestically.

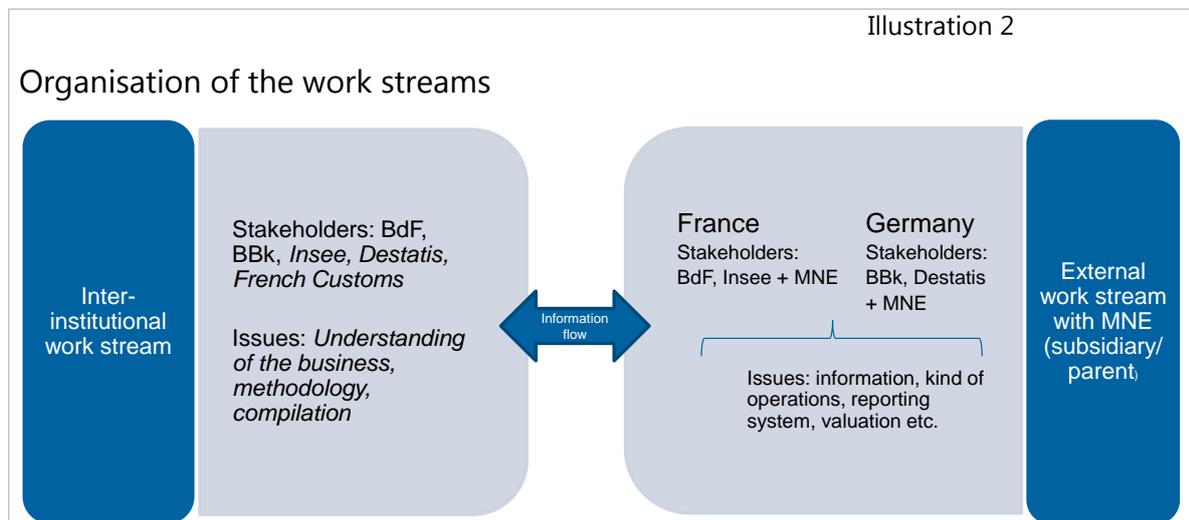
It was recognized by the compilers that the (factoryless) headquarters don't usually manage the whole supply chain. Instead, the affiliates are responsible for certain stages of the chain, usually the production of a semi-finished good or the assembling of the final good. The affiliates invoice their headquarters to cover their operating costs at transfer prices. At the end of the production process, the final goods are owned by the headquarters which is in charge of marketing and customer services.

For the MNE-Group members the correct reporting of these complex arrangements for customs, FTS and BoP is challenging, depending on economic ownership and the movement of the goods. For example, if the headquarters buys semi-finished products from a foreign affiliate and send them for final assembly to another affiliate abroad (without selling them to its affiliate), the headquarter has no obligation to report this to customs/FTS (no movement of goods in its country) but to BoP (as an import, due to the change of ownership) and a subsequent import of manufacturing services (final assembling abroad). If the assembling takes place in the country where the headquarters reside, only a report for customs/FTS is necessary because the movement of the goods coincides with the change of economic ownership.

## 2. Cooperation between Banque de France and Deutsche Bundesbank

The Banque de France and Deutsche Bundesbank have been cooperating for decades on various fields of balance of payments. From conceptual or methodological issues to resorption of asymmetries, both institutions have been working together to improve their common knowledge by sharing their understanding and experiences. This cooperation is managed at various levels: senior managers or technical experts meet regularly to enhance their collaboration.

The organisation of the cooperation on MNEs mainly relies on two parallel work streams dealing with common topics but analysed under different perspectives. The outcomes of the two work streams are merged at the end of the process in order to have a comprehensive view of MNEs activities and their recording in the relevant statistics, notwithstanding the fact that interactions between the two work streams can happen.



### The inter-institutional work stream

The first work stream called “the inter-institutional work stream” deals with conceptual, methodological and compilation topics. It is constituted of experts from different statistical institutions such as the National Statistical Institutes (NSI), National Central Banks (NCB) and the Ministerial Statistical Department of the French customs and indirect taxation authority. Experts from the NSI come from three statistical areas: NA, FTS and Enterprise Statistics.

This inter-institutional work stream meets at two levels: a national level and at an international one. The national level meetings are designed to exchange views on the organisation of the MNEs, to share information on the current reporting, to identify problems and specific reporting practices as well as to clarify the statistical treatment acknowledging the conceptual background. At the beginning of the process, it appeared that each institution had its own comprehension of the MNEs, based on the data it collected. The data reported are usually analysed focusing on the needs of the specific institution/respective statistic and not aimed to design a coherent picture of the MNEs. However, this stovepipe approach sometimes leads to a partial comprehension of the MNEs organisation.

For example, one of the MNEs used the VAT number of one of its subsidiary to report exports of goods from France to Germany to the custom authorities. In the following year, this MNE decided to report its exports under its headquarters' VAT number, with a lower value of the exported goods (as required by the conclusions of an internal audit). For NA, this change was analysed as a major drop of exports of this subsidiary that was not completely balanced inside the group. For BoP compilers, total exports of the group had lowered. Thanks to the cross-checking of data with the custom authorities in one of the “inter-institutional work stream”, the information of the change of value and reporting agent was shared, giving sense to the reported data.

The international level of the inter-institutional work stream is aimed at detecting differences in the treatment of cross border flows, to understand the reasons of current asymmetries, clarifying conceptual and methodological issues to get a common view and selecting questions to be addressed to the other work stream. In this work stream, experts can share their understanding of the MNEs organisation developed within the national inter-institutional work stream.

The common understanding of the organisation is a key element of the international inter-institutional work stream to solve asymmetries. Every difference in the assessment of the production process can lead to different customs/FTS codes (e.g. nature of transaction, partner country) reported by the affiliates of an MNE in the countries involved.

Therefore, in order to get a correct reporting, statisticians and reporters must be aware not only of the conceptual differences i.e. physical flows (customs oriented) and the concept of change of economic ownership (BoP oriented) but also have to take into account the whole production chain even if it takes place beyond the borders of their own statistical territory. Throughout the meetings, it was challenging for all the participants to put together the pieces of the puzzle from the external work streams into a picture on which a final decision could be taken, about how these transactions must be recorded in the statistics to provide a consistent dataset.

## The external work stream with MNEs

The external work stream with MNEs can only be successful if the MNEs fully agree to cooperate. To reach this level of cooperation, it is really important to communicate and explain what the problems are, how the MNEs will be involved to help solving the problems and what is to be done when solutions are found.

As an in-depth analysis of the MNEs implies to talk about individual data, the principle of confidentiality must be guaranteed in order to allow the MNEs accounting, excise and custom teams to cooperate fully. Regarding confidentiality, it is also important to receive an allowance of the MNEs to share confidential data with the experts of the other statistical institutions of both countries. To reach these two goals it is of utmost importance to create an atmosphere of trust between all stakeholders. Therefore, all steps followed by the other work stream must be clearly presented to the MNEs team, which implies frequent and regular meetings explaining the achieved steps and the coming ones. These meetings took place on a face to face basis, mainly at the beginning and the end of the process. In between, due to practical considerations, these meetings were mostly conference calls.

Once the confidentiality is guaranteed, the conceptual and methodological issues can be debated. The first step is a stocktaking where the MNE team precisely explain how the group operates inside the countries and at the international level. This information is the key element to identify all relevant cross border flows and to characterise them. After the international flows are filtered out, the data reported by the MNEs are scrutinized to evaluate if they reflect the MNEs activities properly.

In some cases, it appeared that the reporting was not relevant, especially when it covers intra-group flows. When the organisation of the MNE is highly centralised, a significant part of the production process is guided by the headquarters, which sometimes also centralise purchases of key components of the final product. In such a case, the headquarters have the economic ownership of the purchased and final goods. Several options of reporting are open to the MNE. The most frequent is the following: Taking the example above i.e. a component is purchased by headquarters located in a country A and is delivered to a factory in a country C from a country B. The factory in country C reports an import from country B, to materialize the inflow of goods to the customs authority of country C. The headquarters in the country A report a financial flow to the country B to the BoP compilers of the country A to materialize the payment of the invoice from country B.

Regarding that reporting, the BoP compilers must be aware that the economic owner of the component is the MNE's headquarters but there is no reporting in the goods item of the country A's BOP. In country C, a final import of goods is reported that the BoP compiler (due to a wrong coding in its FTS) may take into account in the goods item even though there is no change of ownership between the countries C and B. As MNEs generate important flows of this type, this case was analysed by the two work streams to define a homogeneous reporting scheme for headquarters and the factories.

After taking all information about such transactions into account, it was decided that the import of the component in country C should be reported as an import for processing which enables compilers to identify these goods movements and to withdraw them from the BoP of country C because there is no change of ownership. In country A, the headquarters has to report an import for BoP to take into account the change of ownership from country B. If -at the end of the production process - the final product is exported to a third country directly from C, this has to be reported in C as an export after processing (and not as a final sale as it is often done) so that it could be again withdrawn from the BoP of country C. Further, this export has to be reported as a final sale of goods in country A to take into account the change of ownership (again, outside the customs/FTS reporting scheme). To complete the reporting, the factory in country C would also report processing fees charged to headquarters in country A as an export of manufacturing services on physical inputs owned by others; the headquarters in A has to report the corresponding service import.

These in-depth analyses lead finally to coordinated reporting instructions. They must be explained comprehensively to the members of the MNEs to better understand the needs and the interplay of the relevant statistics. The MNEs' accounting, customs and excise teams usually support this work because it is an efficient way for them to get a clearer view of what has to be reported by each subsidiary in the countries where they operate.

The fact that the external work-stream is fed by the inter-institutional work stream gave the experts in the local team much more legitimacy in the discussion

with the local MNEs members regarding reporting advices because they can rely on the fact that the explanations given by the local experts are communicated in an identical way to their sister or mother company in the other country.

Once the conclusions were settled by the "inter-institutional" work stream, a final meeting was organised to explain what the new reporting should be, to decide when it could be implemented and to discuss technical aspects (IT development, backward revisions). One MNE, willing to report efficiently, ask French BoP to second experts to work on the changes and help them to identify the accounting elements to include in their reporting. Support all along the process is another key element to make the external work stream successful.

## Conclusions

The increasing relevance of MNE-Groups in a globalised world and the influences of their economic decisions on national economies must be reflected in macroeconomic statistics like the BoP and national accounts in an adequate way. The current concepts of these statistics, focusing on the national territory, are questioned in various ways by users today. The basic question is: do these concepts are still able to reflect economic activities inside the economy and its international relations adequately?

The experience made with the cooperative approach between the Deutsche Bundesbank and the Banque de France turned out that a cross statistical approach combined with a cross-country approach could foster the understanding of MNE activities and enable compilers to measure their activities adequately and consistently without leaving the grounds of the existing concepts.

The insights into a group's operations, in its international production arrangements and internal pricing help to improve the statistical reporting of the MNE-Group members in a common and coherent way in all statistics. Even more, the work in the external work stream improved the understanding about statistical needs and interdependencies between various statistics of the responsible units in the group and it has fostered the internal communication between the group members in different countries.

The work in "two work streams" has eased the communication between the experts (rapid conclusions on conceptual issues and methods) on the one hand and talks with national group members (simple communication without language barriers, openness to admit mistakes) on the other hand.

In addition, what should not be underestimated for the future work between all stakeholders is the confidence in each other combined with the will to improve the meaningfulness and therewith the overall quality of the statistics. However, even with an optimal cooperation between all stakeholders the process is very time consuming. From our experience at least two years are needed from the initial start to a fully "harmonized" reporting in all countries.

But it is all worth to produce statistics which reflect faithfully the volume of trade of MNEs' complex global production arrangements.

## References

Ahmad, N; et al. (2017): Indicators on global value chains: A guide for empirical work, OECD Statistics Working Papers, 2017/08, OECD Publishing, Paris

International Monetary Fund (2009): Balance of Payments and International Investment Position Manual (BPM 6)

United Nations Economic Commission for Europe (2015): Guide to Measuring Global Production



Ninth IFC Conference on "Are post-crisis statistical initiatives completed?"

Basel, 30-31 August 2018

Sharing of data reported by complex multinational enterprises:  
a cooperative approach between  
Deutsche Bundesbank and Bank of France<sup>1</sup>

Tatiana Mosquera Yon, Bank of France  
and Jens Walter, Deutsche Bundesbank

---

<sup>1</sup> This presentation was prepared for the meeting. The views expressed are those of the authors and do not necessarily reflect the views of the BIS, the IFC or the central banks and other institutions represented at the meeting.

# Sharing data reported by complex multinational enterprises: a cooperative approach between Deutsche Bundesbank and Banque de France

Tatiana Mosquera Yon – Banque de France  
Jens Walter – Deutsche Bundesbank

# Introduction

- Not at least since the „Irish Case“ it has become clear that economic decisions of MNE in a globalized world could have sizeable effects on Business Statistics (BS), National Accounts (NA), Foreign Trade Statistics (FTS) and the Balance of Payments (BOP)
- The main characteristic of an MNE is the internationality of its operations, organized across borders to maximize the efficiency of production and to minimize their tax burden
- To measure their operations adequately and symmetrically in statistics like the BOP, a close cooperation of statisticians in all countries affected by MNE transactions are of utmost importance
- To better capture and understand intra-group flows between France and Germany the Banque de France (BdF) and the Deutsche Bundesbank (BBk) strengthened their cooperation in the last years by focusing on MNEs, which are of high relevance to their respective BOP

# The approach

- Since decades, the BdF and the BBk have worked closely together in various fields of the BOP (conceptual/methodological issues, bilateral asymmetries and organizational questions)
- Regular meetings of the senior management and on the expert level reflect this constructive collaboration between both institutions
- Intra group flows (and stocks) of MNEs play always an important role in these meetings due to the close interconnection of both economies
- The cooperation established in the field of MNEs mainly rely on two parallel workstreams

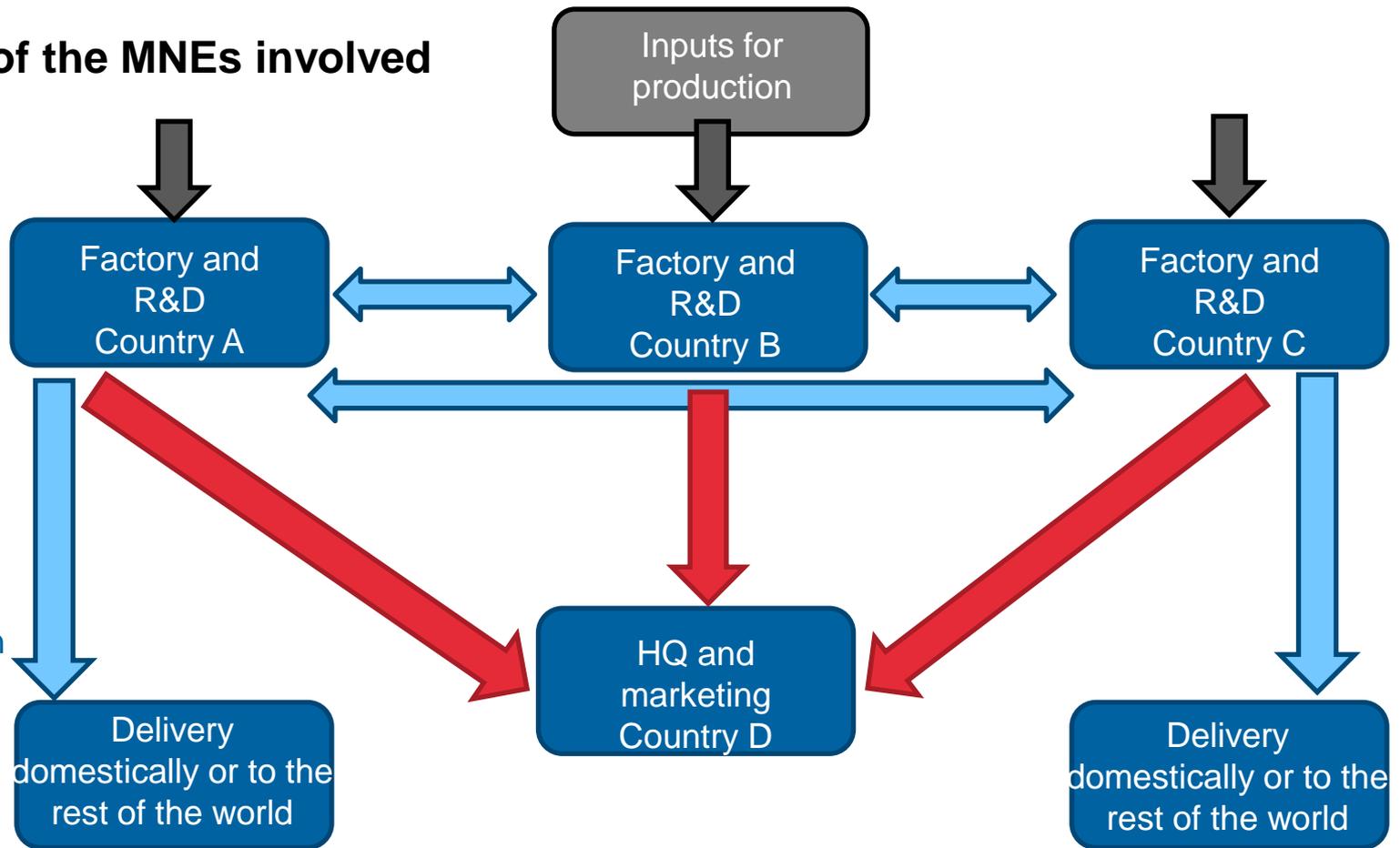
# Overview of the MNEs involved

Stages in the production

Intermediate production

Commercialisation

Delivery



↔ Flows of goods and services  
→ Invoicing to HQ

# The work streams

Inter-institutional work stream

Stakeholders: BdF, BBk, *Insee*, *Destatis*, *French Customs*

Issues: *Understanding of the business, methodology, compilation*

Information flow

France

Stakeholders: BdF, Insee + MNE

Germany

Stakeholders: BBk, Destatis + MNE

Issues: information, kind of operations, reporting system, valuation etc.

External work stream with MNE (subsidiary/parent)

### Inter- Institutional Work stream

- Exchange views on the respective comprehension of the MNE, what are the operational tasks in the countries?
- Exchange information about the current reporting practice and problems
- Conceptual treatment of operations in the respective country
- Detecting differences in the treatment of cross border flows → reason for asymmetries
- Clarifying the issues to get a common view
- Open questions to be addressed in workstream II
- Discussion of outcomes of workstream II
- Final agreement on the future statistical treatment and data collection in the relevant statistics (BOP, FTS, NA)

## Works tream II in detail France (1/2)

External work  
stream with MNE  
(subsidiary/parent)

- Doubts about the consistency between the reporting of the MNEs and its activity
- Meeting with the MNEs to understand its global production arrangement
- Meetings with experts of related statistics
- Regular meeting with the MNEs to understand its reporting and the data reported to other statistical institutions (also allowing us to exchange confidential information between institutions)
- In-depth analysis between statistical institutions of our understanding (national accounts, foreign trade statistics and profiling division) in dedicated workshops

## Work stream II in detail

### France (2/2)

External work  
stream with MNE  
(subsidiary/parent)

- Meeting with workstream I to check our respective understanding and clarify doubts leading to a common vision but also new questions
- Explanation of our new questions to the MNEs and definition of answers
- Final meeting with workstream I to reach a common definition of the MNEs' activities and how they should be reported
- Meeting with the MNEs to explain our understanding of their global production arrangement and the new reporting requirements and definition of the main stages of the implementation of the new reporting
- Secondment of Banque de France's experts to the MNEs to adapt the reporting

## Work stream II in detail Germany (1/2)

External work  
stream with MNE  
(subsidiary/parent)

- Detection of anomalies in reported data of the MNE
- First discussion with experts of related statistics (FTS, NA)
- Contact with the 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

## Work stream II in detail Germany (2/2)

External work  
stream 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.a. time to change computer systems to fulfill the „new“ requirements by the MNE
- Agreement on the date to start with revised reporting

# Conclusions

## (1/2)

- Exchange of views between all statistical stakeholders and MNE (parent, subsidiary) on national and international level fosters the understanding of MNE activities
- Insights into the group's operations, its international production arrangements and internal pricing help to improve the statistical reporting in a common and coherent way in all statistics
- A coordinated approach of statistical institutions across countries regarding reporting requirements of an MNE is of utmost importance also for the group entities
- It improves the understanding about statistical needs and interdependencies between various statistics of the responsible units in the group. Furthermore, it fosters the internal communication between the group members in different countries.

# Conclusions

## (2/2)

- The work in „two work streams“ has eased the communication between the experts (rapid conclusions on conceptual issues and methods) on the one hand and talks with national group members (simple communication without language barriers, openness to admit mistakes) on the other hand.
- However, even with an optimal cooperation between all stakeholders the process is very time consuming. From our experience at least two years are needed from the initial start to a full „harmonized“ reporting in all countries.
- But it is all worth to produce statistics which reflect faithfully the volume of trade of MNEs' complex global production arrangements.