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"Implementing Globalization in National Accounts: Practical Steps in Europe and some Experience from Germany"

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Abstract:

Globalisation is a historic process of increasing interaction between national economies on a world-wide scale. While not new, interconnectedness has accelerated in recent years due to political developments and technical enablers, such as informatics and new communication tools. Globalisation is closely related to activities by Multi-National Enterprises (MNEs). Fragmented production processes span the whole world, exploiting comparative production advantages and tax competition between nations. The main question globalisation is presenting to statisticians is: Which parts of the production activities of MNEs are actually taking place in the domestic territory of any given country? This question is of particular relevance for the EU, as payments of the Member States into the EU Budget also depend on the level of gross national income (GNI).

To shed light on globalisation, various tools have been developed by European statisticians. The establishment by Eurostat of the Euro-Groups Register was an important step within Europe to foster collaboration between statistical offices and provide consolidated information about cross-border MNE structures. Also many European National Statistical Institutions have specific investigations of MNE in place, such as targeted surveys or “profiling”, often concentrated in specific consistency Units.

Building on these new infrastructural elements, European statisticians in close cooperation between Eurostat and the National Statistical Institutions have been piloting new forms of cross-country cooperation in order to investigate the allocation of value added created by MNEs across the EU Member States. The paper will present first lessons learned from this pilot exercises, including implementation experience from Germany.

Keywords: National accounts, Globalization, Multinational Enterprises.

¹ The views expressed in this paper are those of the authors. They do not necessarily reflect the views of the Statistical Office of the European Union nor of the German Federal Statistical Office.

BACKGROUND AND INTRODUCTION

1. On July 12th 2016 the Central Statistical Office (CSO) of Ireland published a level shift for its GDP and GNI, significantly revising the annual growth rates for 2015 upwards to 26.3 % and 18.7 %, respectively, on a constant prices basis (see CSO Ireland (2016)). Corresponding revisions were made to the Balance of Payments (BOP) and the industrial production index. These revisions were attributable to a small number of multinational enterprises (MNEs) bringing their balance sheets from 'off-shore' locations into Ireland, and were based on data collected directly from these MNEs.
2. This case provided a stark warning for the work of Eurostat and the European Statistical System (ESS) that, as huge multinationals move their business around Europe and the globe, the level and growth of GDP could be significantly impacted, in particular for small economies where the impact is proportionally higher than for larger economies (see for example Stabel-Weber and Verrinder in Eurona 2/2016).
3. Prior to July 2016, European national accountants' interest in MNEs and globalisation was more on a conceptual level of how national accounts should treat particular aspects of MNEs. Since the Irish revision in July 2016, Eurostat and the ESS have tried to deal with the issue of multinational enterprises and globalisation in a much more holistic and practical manner.
4. The European approach to globalisation is rather broad and based on many statistical actions. Two specific approaches were initiated and developed as a direct response to the above Irish revision. The first focuses on the work undertaken in the context of the so-called Early Warning System (EWS). Here, a Member State notifies Eurostat when it becomes aware of the relocation or restructuring of a multinational group across EU borders. With the Member States affected, Eurostat analyses the event and describes it in an anonymised case study with the general conclusions of the analysis. So far, 18 restructuring cases have been reported to the EWS, with nine cases closed and the others ongoing.
5. The second specific approach concerns the current treatment of MNEs in Member States' national accounts. These MNEs are not relocating or restructuring, but conducting 'business as usual'. The "GNI MNE pilot exercise" falls within the remit of this second approach to globalisation. It sets out to evaluate the treatment of an initial selection of MNEs, based on the methodological guidance given in ESA 2010 and in the Balance of payments and international investment position manual (BPM6). It builds on the information reported within the business statistics domain. In addition, information from the selected MNEs are sought through NSI contacts and visits to the MNEs. The purpose of this paper is to introduce this second approach.

GNI MNE PILOT EXERCISE: MOTIVATION AND OBJECTIVES

6. Statistical recording of the existing global MNE structures also affects the quality assurance process ("verification") of EU Member States' Gross National Income (GNI) data by Eurostat.

7. The European Court of Auditors - which audits the use of GNI for EU budgetary purposes - issued two globalisation-related recommendations in 2016, under which Eurostat should:
 - analyse all potential implications of multinational activities on the estimation of GNI with Member States and provide them with guidance on how to deal with these activities when compiling national accounts; and
 - confirm, during the ongoing GNI verification cycle, that research and development assets have been correctly included in Member States' national accounts, paying particular attention to the assets' valuation and to residency criteria where multinational activities have relocated.
8. The EU's GNI Committee and Directors of Macro Economic Statistics (DMES) discussed a proposed way forward, based on pilot projects chosen for selected multinationals. This approach was also endorsed by the heads of the EU NSIs (in the European Statistical System Committee, or ESSC) in February 2018. The pilot exercise seeks to gain, by the end of the current GNI verification cycle in December 2019, a reasonable understanding of the reliability of the recording of globalisation issues in GNI data and of the problems involved. This should help to identify globalisation-related statistical measures needed after the 2019 cycle ends.
9. To contribute to such a reasonable understanding, the ESSC approved a sample of 25 MNE cases to be examined. The sample is based on the work undertaken by the January 2018 DMES Task Force on the MNE pilot exercise, following the extensive work by the GNI Committee and DMES in close cooperation with Eurostat's national accounts and business statisticians. All available information was used to avoid duplication of effort and, in this first pilot exercise, to spread the work across Member States as evenly as possible.
10. The main aim of the pilot exercise in contributing to the aforementioned reasonable understanding is to assess the recording of value added by for each MNE (using the business statistics definition as a proxy for the national accounts definition) and the plausibility of its distribution across EU Member States. The secondary aim is to analyse the research and development performed, location of intellectual property products, intra- and extra-company trade flows and methodological consistency of statistical recording across Member States for a given MNE, in the context of national accounts and balance of payments.

ROLES, RESPONSIBILITIES AND SCHEDULE

11. To progress with the GNI MNE Pilot Exercise work, it was important that coordination and consistency be ensured with the Euro Group Register, EU Profiling and Large Cases Unit work programmes, which form part of the work of business statisticians in the EU. This was to guarantee that there is no duplication of effort and the GNI MNE Pilot Exercise can move forward as quickly as possible. To achieve this coordination, a Joint Task Force of business statistics directors and macroeconomic statistics directors monitors and provides guidance to the MNE pilot exercise.
12. The MNE pilot exercise is running between March 2018 and end 2019. It is split into two phases: phase 1 for those MNEs already profiled between 2015 and 2017; phase 2

for those MNEs yet to be profiled. The MNEs selected for the pilot deliberately include businesses operating in a variety of industries affected by globalisation issues.

WORKLOAD AND PROCEDURES TO ENSURE SECURE SHARING OF INFORMATION

13. The selection of multinationals and the work allocation in phases 1 and 2 of the GNI MNE Pilot Exercise were designed to cover the different relevant globalisation issues and to spread the response burden as fairly as possible across the Member States. Ten MNEs were allocated to phase 1 and 15 to phase 2.
14. To succeed, the pilot exercise needed a secure environment to hold information, along with a secure method of communication between Member States and between them and Eurostat. To this end, Eurostat has established a network of contact persons (including back-ups) responsible for communication within the network. The Member States have nominated one coordinator for the general GNI MNE Pilot Exercise work (by default the GNI Committee member) plus a back-up. The coordinator acts as a single overall contact point for the pilot exercise. On top of that, for each pilot case they are involved in (as a lead or partner country), the Member States have nominated a pilot case contact (and a back-up). Only the pilot case contacts involved in a particular pilot have full access to the relevant information exchanged within that MNE case. Communication within the network takes place via documents uploaded on a secure S-CIRCABC environment with limited access. National Central Banks and the European Central Bank (ECB) have been associated to cases which have implications for statistics produced by them.

LEGAL FRAMEWORK, CODE OF CONDUCT AND IT ENVIRONMENT (S-CIRCABC) FOR MICRODATA SHARING IN THE GNI MNE PILOT EXERCISE

15. Voluntary data sharing among MSs and Eurostat is allowed by Article 21 of Regulation (EC) No 223/2009 of the European Parliament and of the Council of 11 March 2009 on European statistics, complemented in some countries by national regulations as necessary. In particular, EU NSIs and Eurostat are bound by Chapter V of Regulation 223/2009 to respect statistical confidentiality. In addition, sharing EGR data for the MNE Pilot Exercise fully respects the relevant Regulation (177/2008) in terms of confidentiality and access to identifiable data. For the National Central Banks Articles 8 and 8a on statistical confidentiality of Council Regulation 2533/98 apply.
16. At the request of MSs, Eurostat drafted a Code of Conduct for microdata sharing in the Pilot, which specifies the responsibilities of MSs and Eurostat when sharing and handling microdata, the IT platform to be used for data sharing (S-CIRCABC) and the duration of microdata storage. The provisions in the Code of Conduct do not add any additional requirements to those of the European Statistics Code of Practice, the purpose being to provide clarifying details for the implementation of Principle 5 (on Statistical Confidentiality and Data Protection) of the European Statistics Code of Practice in the MNE Pilot Exercise. In addition, the Code of Conduct gave extra assurance and helped to facilitate the microdata sharing, especially in countries with legal issues and confidentiality concerns in data sharing. Some countries still needed to adopt a new national legal basis specifically aimed to facilitate data sharing for the GNI MNE Pilot Exercise.

17. The sharing of confidential information is done via uploading password protected files on a dedicated space (Interest Group) created by Eurostat on the secure S-CIRCABC² environment. Access to S-CIRCABC is achieved via a two-step authentication procedure. As an additional level of security every participant to the pilot is responsible to password protect the file(s) she/he is uploading with a password that is unique to each MNE folder. The passwords were securely communicated by Eurostat to pilot participants.
18. Granting and administering MSs' access according to their participation in each MNE case is undertaken by the GNI team in Eurostat. Initially, some MSs encountered difficulties in accessing the environment, but - once access was established - data sharing proceeded smoothly, without any major issues, and to the high satisfaction of all participants. In some MSs, changes to staff access to the environment during the pilot had to be administered by Eurostat.

RECENT DEVELOPMENTS, NEXT STEPS AND EMERGING ISSUES

19. After the finalisation of the Code of Conduct on Micro-Data Sharing in the context of the MNE Pilot Exercise, a follow-up meeting of the GNI MNEs Pilot exercise took place in Luxembourg 13-14 March 2019, where final reports on 10 MNE cases of the phase 1 were presented by the Lead countries. The main achievement of the finalisation of phase 1, with draft final reports and voluntary confidential information sharing on an unprecedented scale between statistical authorities of EU Member States (NSIs, NCBs and, in some countries, also customs authorities), were possible thanks to the framework described above.
20. The final results of the pilot are now under analysis, taking into account the additional 15 MNE cases of phase 2, for which the final reports have recently been received. Conclusions and recommendations for the future will be developed by the end of 2019, and discussed between Eurostat and EU MSs.
21. Even though the GNI MNE Pilot Exercise has not yet concluded, some key issues emerging from it are already evident, namely:
 - A meaningful examination of globalisation phenomena can only be conducted at the level of MNE groups. The experience of the GNI MNE pilots shows that this is a crucial factor for the success of the implementation of a consistent and comprehensive statistical recording of MNEs and their activities across MS:
 - While voluntary data sharing on MNEs was agreed for the pilots exercise, legal and operational frameworks for the post pilot continuation of the information sharing between MS and with MNEs should be further considered;
 - MNEs also need to provide access to relevant information necessary to properly record their globalisation related activities in economic statistics. To that end, possible legislative initiatives could be sought as well as mutually beneficial cooperation, for example by reducing the overall reporting burden on MNE Groups.;

² CIRCABC is a collaborative platform used by the European Commission when working with the MSs. S-CIRCABC is a secure version of it.

- The experience of the pilots so far illustrates the importance of increased cross-domain and cross-country coordination and information sharing on the statistical issues related to MNE groups
 - o This is essential for example for the proper allocation of value added across countries (through correct application of the economic ownership principle for recording production of goods and services and IPP assets, correct valuation of transactions etc.), including the need for further methodological guidance (including consistent methodological development, definitions and implementation across statistical domains) where appropriate;
 - o It also emphasises the key role of business statistics in providing a sound statistical infrastructure for quality economic statistics, like EGR, European profiling and Large Case Unit functions;
- Access to BEPS information collected by Ministries of Finance could also provide relevant information on MNEs.

COUNTRY EXPERIENCE IN GERMANY: CONDITIONS, ORGANISATION AND LEGAL FRAMEWORK

22. The German economy is particularly integrated in the European and global economy. This shows up in the economic openness of the German economy (relation of the sum of goods imported and exported to GDP) and foreign direct investment. In addition, multinational enterprise groups (MNE groups) generate a disproportionately high share of German economic output. The enormous economic significance of the MNE groups can be seen in the following figures from structural business surveys: they employ almost 30% of the total workforce in the sectors included in the structural statistics (excluding agriculture, government and private households), generate significantly more than half of the turnover recorded there (56%) and almost 44% of gross value added. Their activities thus have an enormous impact on economic statistics. It is therefore easy to understand that Germany is participating in all 25 MNE cases selected for the MNE pilot study. For 3 MNE groups, Germany has the role of the lead country, collecting micro data from other Member States where the MNE group is physically located with at least one enterprise/legal unit. For 22 MNE groups Germany participated as a partner country.
23. When compiling statistics in Germany, the Federal Statistical Office (Destatis) works closely with the statistical offices of the Länder (federal states). In accordance with the federal structure in Germany, the regional offices are generally responsible for the collection of data and compiling the national result. For some statistics, such as foreign trade in goods, data are also collected centrally by the Federal Statistical Office. In addition, the responsibility for some statistics relevant in the present context rests with other national data producers. For example, foreign trade in services is compiled by the German Bundesbank, and data on research and development expenditure of enterprises used in national accounts are collected from the Stifterverband (Donors' Association for the Promotion of Science and Humanities in Germany), which is a registered association. As a result of this federal organization of official statistics, microdata in Germany is collected and stored by different data producers.

24. The Federal Statistical Office has been actively contributing to the GNI-MNE Pilot exercise as national coordinator. Despite the high importance of MNE groups, Germany does not yet have a Large Cases Unit (LCU)³ that deals intensively with coherence of data for the big MNE across statistics. Coherence checks have in the past been only selective for bilateral comparisons of statistics. In this context, participating in the pilot studies posed particular challenges both to clarifying legal issues of merging microdata from different data producers for MNE groups and to building a statistical infrastructure for the pilot studies.
25. The guidelines of the GNI-MNE pilot studies intended the voluntary exchange of micro data between MS within the European Statistical System and related central banks based on regulation Regulation (EC) No. 223/2009⁴ (see paragraph 15). This was considered as legally insufficient for several member states. In the case of Germany, a specific legal basis⁵ was enacted at the end of December 2018 to overcome the obstacles imposed by German law for an voluntary exchange of micro-data on multinational entities between member states' statistical offices, limited until the end of 2021. This national legal basis made it possible in Germany to participate in European micro-data exchange and thus in the pilot studies.

COUNTRY EXPERIENCE IN GERMANY: DATA SOURCES AND INTEGRATION

26. A significant share of the work in Germany was related to the establishment of an infrastructure in the statistical office to collect and exchange the information and microdata relevant for the MNE pilot exercise. This included information and data from business statistics (EuroGroups-Register EGR, national profiling, structural business statistics (SBS)), foreign trade statistics and balance of payments statistics from the German Central Bank. As a starting point, the delineation of the MNE group had to be made by defining the legal units that belong to the German part of the MNE group. These legal units can be derived from several sources: The National Business Register, the EuroGroups-Register and the shareholding list from the annex to the annual reports of the MNE group.
27. While there is a significant overlap between these sources, the delineation exercise was not straightforward. This task was carried out by Destatis and the statistical offices of the Länder. SBS data on the other hand was gathered from different data producers and surveys (i.e. structural statistics, cost structure survey and investment survey in manufacturing, mining and quarrying; cost structure survey in electricity, gas, water supply, sewerage, waste management and remediation activities and construction industry; structural survey in service industry; annual statistic in wholesale and retail trade, including repair of motor vehicles and motorcycles). Since the scope of the questionnaires and the definition of certain variables sometimes differ between the surveys, the SBS codes for the variables required in the questionnaire (i.e. production value, value added at factor cost, gross operating surplus and others) have been individually derived from the data set descriptions and checked for consistency.

³ In Germany, the introduction of an LCU is currently in the planning phase. Parallel to the MNE pilot studies, corresponding LCU pilot projects are underway.

⁴ Regulation (EC) No. 223/2009 of the European Parliament and of the Council of 11 March 2009

⁵ „Gesetz zur ergänzenden Regelung der statistischen Verwendung von Verwaltungsdaten und zur Regelung der Übermittlung von Einzelangaben zu multinationalen Unternehmensgruppen an statistische Stellen“, Bundesgesetzblatt I Nr. 48 vom 21. Dezember 2018

28. For the three MNE groups where Germany had the role of lead country, the complete MNE group structure with the partner countries was analysed and clarified. In addition, the microdata of the partner countries were carefully examined to review the European units of the groups.
29. Furthermore, the standard questionnaire for the pilot studies requires information on total imports and exports of goods and services from ITGS/ITSS statistics. For trade in goods, a special evaluation has been provided by the foreign trade statistics of Destatis for the 25 MNE groups. The evaluation aggregates individual trade transactions towards the required categories in the questionnaire. A conceptual adjustment has to be made to convert transactions from the special trade concept of the foreign trade statistics towards the general trade concept of National Accounts. By analysing the type of transaction in trade statistics, some types of globalisation-related phenomena can be identified, such as “processing under contract”.
30. However, the information typically provided by the standard questionnaire of the pilot from all EU countries concerned only allows the intended coherence checks at an aggregated level. A more detailed identification of globalisation-related transactions, by using data of single transactions or aggregated sums of transactions by target country, would have required a much wider exchange of trade-related microdata than could be carried out in the short time frame of the MNE pilot studies. Regarding trade in services, Destatis received data from the balance of payment statistics from the German Central Bank. This includes imports and exports in services, also showing intra-EU trade. Furthermore, Destatis received information on total investment income flows (credit and debit). Since the analysis of the German Central Bank is based on a list of legal units for the respective MNE group that is not identical with the delineation of legal units within SBS statistics⁶, consistency and completeness is not fully guaranteed.

COUNTRY EXPERIENCE IN GERMANY: FIRST RESULTS

31. From the quantitative data provided by the questionnaires of the member states, one task is to assess the structure of the MNE group. This initially includes checks on completeness of the group in terms of the legal units included (no double counting of legal units, no omitted units), which is usually possible. Double counting of units at a European level may also occur for branches in selected cases where the allocation of the branch follows different approaches across NSIs (inclusion at the place of the registration of mother company versus the place of residence of the branch in the hosting country) In most cases it was generally possible to reconcile group structures. Minor inconsistencies found could in most cases be resolved through bilateral contact with the partner countries. However for some large, complex MNEs, reconciling the group structures between countries is challenging.
32. Furthermore, as a result of the quantitative analysis, the consistency of employment and value added has to be checked. In principle, member states’ aggregated data on employment and value added has to be compared with information from the global enterprise group (GEG), either from the annual report or from a secondary source,

⁶ There is up to now no common business register between the statistical offices and the Deutsche Bundesbank.

such as the country-by-country reporting (CbCR⁷, also known as OECD's BEPS 13 action report) or information collected by a visit of the enterprise group. According to the guidelines of the MNE pilot studies, the difference between turnover and purchases of goods and services may be used as a proxy for value added if the latter is not available. According to the experience in Germany, information from the annual report is often limited or not provided in the required disaggregation by countries. In addition, turnover and purchases of goods and services (intermediate consumption) are affected from intra-enterprise group consolidation, which is not the case for value added (gross earnings/EBIT).

33. To be able to compare microdata from the member states with MNE information by country, Destatis tried to get data of the country-by-country reporting as a reference, contacting the three MNE groups where Germany is responsible for providing the final report and requested the data of CbCR on a voluntary basis. However, despite recurring efforts, only one of the three MNE groups has so far agreed to provide the requested information. From the perspective of the MNE group, the information is considered as highly sensitive and not deemed for dissemination. As a consequence, benchmark information on the consistency of value added and employment by individual country is limited.
31. Overall, the research in Germany so far has shown that it is easier to derive conclusions for employment (or turnover) than for value added. In most of the examined cases there seem to be up to now no, or only small distortions of the gross value added due to missing data or double counting. The quantitative results on employment can be reconciled to a high degree. However in the case of value added the relevant information from the MNE is often not available, so it is difficult to draw clear conclusions.
32. Besides the checks for consistency of value added, the GNI-MNE pilot study should examine the correct recording of R&D assets and the application of the economic ownership principle. In the standard questionnaire, total intra-mural R&D expenditure has been requested and is deemed as a proxy for IPP (intellectual property products) assets. The data basis for R&D expenditure from the questionnaires is very limited. Based on the experience from the GNI-MNE pilot exercise, only few countries provided data on R&D expenditure. In the case of Germany, R&D expenditure from SBS is partially available, however in National Accounts, R&D assets are determined as a model calculation at industry level on the basis of information from a third party on R&D expenditure (Stifterverband) and not disseminated to Destatis on a detailed basis.
33. Overall, we are currently assessing the findings of the study on the conversion of the economic ownership principle and on R & D expenditure more cautiously than on employment and gross value added. Although no major discrepancies were found between the NA of the Member States, there are hardly any reference data from the

⁷ The Country-by-Country reporting is a template for multinational enterprises to report annually information on economic figures, such as turnover, number of employees, annual profit before taxes etc... by tax jurisdiction and information on the number on enterprises by purpose of economic activity by tax jurisdiction to the respective tax authorities. Its purpose is to enhance transparency for tax administrations by providing them with adequate information to assess high-level transfer pricing and other risks as part of the Base Erosion and Profit Shifting (BEPS) Action Plan. (Source: OECD)

MNEs on these issues that allow good validation of the figures in the NA of the EU countries. As a consequence it is difficult to draw clear conclusions. In addition there might be different assumptions on who should be considered economic owner of R&D assets (producer or funder of the asset).

COUNTRY EXPERIENCE IN GERMANY: PRELIMINARY SUMMARY

34. Altogether the pilot studies allow for a first check on the consistency of the structure of MNE groups and in principle, the assessment of the completeness of the recording of employment and to a more limited extent of value added. The analysis of some globalisation related phenomena like merchanting or processing arrangements was carried mostly out at an aggregated level. A deeper analysis would require much more detailed information from other countries (e.g. more detailed information on external transactions in goods and services, information on the allocation of IPP, specific treatment of adjustments on unit-level, ...) than is included in the standard questionnaire of the pilot studies. Further, more detailed work is in this respect done in the large case units in some EU countries on a national level. This does not seem to be surprising as the pilot studies form a new type of project at international level and were under a lot of time pressure right from the start. An initial introduction to the topic with the development of guidelines for micro data exchange and analysis had to be developed step-by step in the course of the project. Experience also shows that future progress in mapping globalization in the NA is currently only to a limited extent achievable through further discussions at the conceptual level. Rather, the focus must increasingly be on the implementation and feasibility of the concepts.
35. For Germany, participation in the pilot studies was very demanding and required a lot of resources. Nevertheless, the participation is especially useful in order to get started on data coherence checks of MNEs across statistics, while at the same time starting to set up an infrastructure for such tests. Against this background, Germany is currently pursuing efforts to set up a Large Cases Unit that will systematically deal with the problem of consistency checks for MNE groups in the future.
36. At the time of writing the results of the MNE pilot studies were not yet fully available and discussed. In general, a significant number of emerging issues have been identified as a result of the previous work. This includes methodological aspects as well as organization aspects, such as the need for a legal basis on data sharing of MNE data and for a proposal from Eurostat for post-pilot work. Based on the results from the final reports of phase 1 and 2, the outcome of the exercise should be evaluated and discussed based on the Eurostat report and the feedback to the Lead Countries, before taking any steps to extend the scope of the exercise.

References

CSO Ireland (2016), Ireland's Economic Growth Figures, Press Release,
<http://www.cso.ie/en/media/csoie/newsevents/documents/IrelandEconomicGrowthFigures.pdf>.

Stabel-Weber and Verrinder (2016), Globalisation at work in statistics — Questions arising from the 'Irish case', Eureka 2/2016
<https://ec.europa.eu/eurostat/web/products-statistical-books/-/KS-GP-16-002>