G.2 Treatment of MNE and Intra-MNE Flows
G.2 Treatment of MNE and Intra-MNE Flows

The economic activities of multinational enterprises (MNEs) can have significant effects on national accounts (NAs) statistics. If not properly recorded, the activities of MNEs can result in misallocation of GDP and as a result, severely distort an economy’s macroeconomic indicators. Against this background, this guidance note (GN) addresses the methods of accounting for MNE flows that preserve the robustness and reliability of the NAs estimates for domestic policymaking and preserve international comparability. The GN proposes three options that do not involve changing the core System of National Accounts (SNA) framework, namely: (i) emphasizing existing SNA indicators such as net national income, which are less sensitive to the effects of globalization than GDP and can be used to intuitively analyze MNE activities; (ii) providing additional granularity through the institutional sector accounts framework; and (iii) providing additional granularity using the extended supply and use tables framework. A fourth option, which includes developing indicators outside the core SNA framework was also proposed but was rejected by both the Globalization Task Team (GZTT) and the Advisory Expert Group on National Accounts (AEG). In view of coordinating the related work on MNEs undertaken by other Task Teams—particularly the Direct Investment Task Team (DITT), the GN proposes a statistical definition of MNEs and discusses the issue of control, consistent with the balance of payments methodology.

SECTION I: INTRODUCTION

1. Multinational enterprises (MNEs) are key players in globalization. Through their activities, MNEs manage production, trade, direct investment, and international transfer of knowledge and technology with the aim of maximizing global profits. Consequently, MNEs organize global production strategically among their affiliates across economies, to leverage lower labor costs, friendlier regulatory environments, more educated workforces, market access, and tax advantages among other factors. Increasingly, MNEs have been establishing special purpose entities (SPEs) to channel their financial investments globally and increase access to multiple financial markets.

2. MNE and intra-MNE group flows present measurement challenges for both national accounts (NAs) and balance of payments. The concepts of residence and economic presence which are central to macroeconomic statistics, are less important to MNEs, for which activities extend across national boundaries. This has increased the complexity of compiling economic statistics, as it is more

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1 Prepared by Ms. Francien Berry (primary drafter, IMF), Ms. Padma Hurree-Gobin, and Ms. Jennifer Ribarsky (both GZTT Secretariat, IMF), who also coordinated contributions from GZTT members. The work was undertaken under the supervision of Messrs. Michael Connolly, and Branko Vitas (co-Chairs of the GZTT). The GN benefitted from comments by Ms. Maria Borga (IMF, Balance of Payments Division and co-chair of the Direct Investment Task Team (DITT)).

2 The detailed consultation within the GZTT is presented in the accompanying supporting document on SPEs and MNEs. https://unstats.un.org/unsd/nationalaccount/aeg/2020/M14_SD_4_1_Supporting_Document_SPE_MNE.pdf

3 The feedback and recommendations from the October 2020 AEG meeting and DITT consultations are presented in Annexes VII and VIII, respectively.

4 See GN G.4 on “Treatment of Special Purpose Entities and Residency.”
difficult to breakdown production by economy. The current methodological standards posit that foreign affiliates of MNEs are resident in their respective economies of operation. This treatment is designed to place production in the economy in which it occurs, which is fundamental for estimating the economy’s GDP. Furthermore, the existence of transfer pricing on intra-group flows—when prices do not reflect the “arm’s length” market valuation required by the *System of National Accounts, 2008 (2008 SNA)* and the *Balance of Payments and International Investment Position Manual, sixth edition (BPM6)*—or the practice of not recording transactions for the intra-group use of intellectual property products may result in the misallocation of GDP between the economy of the parent company and those of its affiliates. Moreover, in many cases, estimates recorded by MNEs in national statistical surveys may not be best suited to meet the purposes of NAs and balance of payments statistics.

3. **Although the extent of the issue is not easily quantified, the problem is significant because of the growing size and importance of MNE activities.** Economic decisions made by MNEs can have a sizeable effect on NAs statistics. When mis-measured, these activities can adversely affect key macroeconomic indicators. The impact on GDP results from the misallocation between statistics on international trade in goods and services relative to income and the depreciation charges associated with movable corporate assets, especially intangible assets. Consequently, without robustly accounting for MNE group activities, the reliability of NAs estimates for domestic policymaking purposes may be challenged.

**ISSUES FOR DISCUSSION**

4. **Against this background, the Globalization Task Team (GZTT) discussed four options to highlight the activities of MNEs in the NAs.** The options include those that can be addressed (i) within the core System of National Accounts (SNA) framework (Options 1 to 3) and (ii) beyond the core SNA framework by developing additional indicators (Option 4).

**No Change to the Core Framework**

5. **Option 1 is to emphasize existing indicators within the SNA.** The SNA framework produces several key indicators such as gross national income (GNI), gross national disposable income (GNDI), net national income (NNI), and net national disposable income (NNDI) which generally are less distorted by globalization and less sensitive to the impact of MNE activities than GDP. These indicators better reflect the underlying economic activities of MNEs, but they are not generally promoted by national statistics offices (NSOs). The activities of MNEs can be more intuitively analyzed by highlighting and promoting the use of these indicators.

6. **Option 2 proposes to increase the granularity and scope of the supplementary data provided within the SNA framework using the institutional sector accounts (ISAs).** This option builds on the proposals of Harrison (2014) and Jellema (2018) and considers breaking down the financial and nonfinancial corporations’ sectors, to show foreign-controlled corporations and domestic corporations that are a part of MNEs. This proposal leverages the G20 DGI-2 sectoral accounts template

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5 Where the designation “country” appears in this GN, it refers to an economy or economic territory.

6 Transfer pricing on intra-MNE group flows will be discussed in a separate GN.
(see Annex II) and the definition of control elaborated in the 

BPM6 and the OECD Benchmark Definition of Foreign Direct Investment, fourth edition (BD4).

7. **Option 3 proposes to provide more granularity within the SNA framework using the extended supply and use tables (eSUTs), drawing on the proposal of Ahmad (2018).** In the eSUTs, relevant industries are broken down into enterprises operating domestically, enterprises controlled by domestic MNEs, and foreign controlled affiliates of foreign MNEs (see Annex III). eSUTs decompose the heterogeneity within industries of the supply and use tables framework to better understand the effects of MNEs on industry and product flows for trade in value added and other global value chain analyses.

**Indicators Beyond the Core of the SNA Framework**

8. **Option 4 considers redefining existing indicators within the SNA framework.** The most relevant example of this is the GNI* (modified GNI) measure that emerged from the Irish Economic Statistics Review Group (ESRG) after a steep increase in measured GDP and GNI (ESRG 2016). The recommendations of the ESRG demonstrated that redefinitions are possible without changing the core system of the SNA framework. This approach would extend the core SNA framework.

**SECTION II: EXISTING MATERIAL**

9. **The 2008 SNA** and the **BPM6 introduced several changes to better reflect the challenges associated with MNEs.** The updates clarified principles related to (i) institutional units, (ii) residence, (iii) economic presence, and (iv) economic ownership. Both the BPM6 and the BD4 discuss the methodology of compiling statistics on the activities of MNEs and the issue of control with respect to identifying the enterprises within the MNE group. The 2008 SNA refers that MNEs correspond to foreign controlled enterprises in the sense of subsectors in the SNA but notes there is a small distinction between BD4 and BPM6 and the SNA on the question of control, where the SNA allows some flexibility (2008 SNA, paragraph 21.47). The 2008 SNA specifies that in general a nonresident unit controls a resident corporation if the nonresident unit owns 50 percent of the equity of the corporation. However, control may also be possible with a holding of less than half the equity if the nonresident unit can exercise some of the powers described as indicating possible control by government, for example the control of the board or

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7 Modified GNI (GNI*) excludes the impact of certain aspects of globalization namely the depreciation related to both the cross-border additions to the stock of intellectual property assets and the stocks of aircraft involved in international aircraft leasing for Ireland. In addition, retained earnings of corporate inversions or redomiciled Public Limited Companies (PLCs) headquartered in Ireland are also excluded. This level indicator is for use primarily as a denominator in ratio analysis, and as an alternative or to complement the use of GDP.

8 The 2008 SNA Chapter 21: Measuring Corporate Activity (pp. 21.47–21.5) provides a brief description of MNEs and the treatment related to outsourcing of production. Additionally, the 2008 SNA research agenda recognizes that “some of the issues connected with globalization…may lead to a reconsideration of how the phenomenon is reflected in the accounts. One possibility is alternative, supplementary, presentations of MNEs based on alternative definitions of residence and ownership” (2008 SNA A4.3).

9 The 2008 SNA and BPM6 recognize that a branch of a nonresident entity is treated as an institutional unit of the economic territory, if it engages in significant production of goods and services in the territory for an extended period of time and is subject to the income tax laws. Each branch is considered a direct investment enterprise. The BPM6 paragraph 6.15, makes no distinction on the basis of incorporation, so directly owned branches are always treated as subsidiaries.
other governing body, control of the appointment and removal of key personnel, control of key committees of the corporations (2008 SNA, paragraph 4.81). Lastly, the 2008 SNA and the BPM6 also provide conceptual guidance related to transfer pricing on intra-MNE group flows (2008 SNA, paragraphs 3.131–3.133 and BPM6, paragraphs 11.101–11.102).

10. **Since the publication of the manuals, additional guidance** has been provided on addressing the statistical challenges emerging from globalization. Chapter 2 of The Impact of Globalization on National Accounts details the statistical challenges associated with MNEs. The IMF Committee on Balance of Payments Statistics (BOPCOM) has also examined this issue and provided in-depth analyses on challenges associated with economic ownership, transfer-pricing, and residence. To better highlight the effects of globalization, the G20 DGI-2 Recommendation 8 operationalizes the 2008 SNA proposal and encourages countries to separately identify foreign-controlled corporations and corporations that are part of domestic MNEs through the sequence of accounts.

11. **Finally, several authors have examined the challenges associated with measuring MNE activities in the NAs and have proposed possible solutions.** Some of these solutions are discussed in this note. Notably, Ahmad (2018) discussed the global value chains from a supply and use framework perspective. The paper proposed constructing eSUTs with relevant breakdowns by ownership structures for example foreign-controlled affiliates, domestic MNEs with affiliates abroad, and domestic firms with no foreign affiliates.

**SECTION III: OPTIONS CONSIDERED**

12. **The GZTT discussed the scope of all the options proposed, considering the advantages and weaknesses of each option.**

13. **The GZTT noted that where GDP is more severely impacted by globalization, indicators beyond GDP such as NDP, GNI, GNDI, NNI, and NNDI facilitate an in-depth analysis of the impact of MNE activities on the domestic economy.** They better reflect the realities of those economies that are highly impacted by globalization. For instance, transfer pricing—which has the effect of misallocating GDP towards economies in which subsidiaries or affiliates face lower taxes—has a less distortionary effect on GNI. Furthermore, GDP is not intended to provide the user with a view of the well-being effects and can be misinterpreted since the earnings of wholly foreign-owned MNEs are either distributed through dividends or accrued to the foreign owners through the net balance of primary income. For

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10 In 2011, the UNECE published "The Impact of Globalization on National Accounts" to help compilers understand how globalization affects the NAs. The 2015 UNECE "Guide to Measuring Global Production" strengthens practical and conceptual guidance on global production activities and addresses emerging data needs to better explain the macroeconomic implications of globalization. The UN 2019 publication “Accounting for Global Value Chains: GVC Satellite Accounts and Integrated Business Statistics” provides a framework for the measurement of global value chains (GVCs) and outlines how economic statistics can be made more accurate in measuring the effects of globalization in the NAs. The OECD and Eurostat have also developed guidance on the activities of MNEs and foreign affiliates in the 2005 “Measuring Globalisation: OECD Handbook on Economic Globalisation Indicators”, updated in 2010 as well as the 2012 Eurostat Foreign Affiliate Statistics Recommendations Manual.

11 The Final Report of the Working Group on Balance of Payments Statistics Relevant for the Analysis of Global Value Chains proposes a framework to provide supplementary data that highlights the role of MNEs in the current account.
countries that are large recipients of direct investment, this can have significant policy implications. Option 1 has the advantage of international comparability and compilers do not need to make significant adjustments to their statistical operations.

14. **The consultations showed a preference for gross measures since net measures are more challenging to compile.** Compiling institutions need to further develop internationally comparable measures of consumption of fixed capital (CFC).\(^\text{12}\) Net measures of income, therefore, tend to be less comprehensive than gross measures and compiled at a lower frequency—mainly annually.

15. **The consultations further affirmed that in general, NSOs could continue to highlight these other analytical indicators and their relative importance to users.** It is worth emphasizing to users, the role of these indicators in analyzing various activities in the economy. This is not typically done and will require NSOs to refocus users’ attention to these indicators through extensive education and communication. The fact that some indicators may experience distortions that need to be more adequately addressed remains an issue.

16. **The GZTT also discussed that implementing option 1 does not preclude NSOs from providing increased granularity through Option 2 or 3.** The ISA framework shows the full sequence of accounts by institutional sectors instead of the familiar breakdown by industry (see Annex II). They provide coherent and consistent granularity for the nonfinancial accounts—from gross value added (GVA) to net lending and borrowing—the financial accounts, and the balance sheets. This framework for measuring domestic activities is analytically useful and helps policymakers to distinguish between economic activity driven by the domestic firms and those driven by MNEs.

17. **Increased granularity via the ISA framework has the advantage of capturing the full impact of MNE activities in the macroeconomic accounts and highlights not only the foreign-controlled entities but also the domestic entities that are part of MNE groups.** Although they are not highlighted in the template, corporate inversions can be separately identified as an “of which” category of domestic nonfinancial corporations sector.\(^\text{13, 14}\) Mainly because of the data intensity involved, the consultation showed little support for further breakdown at the financial subsector level (e.g., at the Money market funds (S123), Non-MMF investment funds (S124), etc., level) to separately identify units that are foreign-controlled and domestic corporations that are part of MNEs.

\(^{12}\) The perpetual inventory method is widely used to compute CFC. The calculation of CFC requires that compilers estimate the present value of the stock of fixed capital, lifetime of various types assets, and patterns of depreciation among other assumptions. Not all countries make these calculations, and some may use inadequate data. Consequently, gross measures are more readily available, reliable and internationally comparable than net measures.

\(^{13}\) Also referred to corporate or headquarter relocations, corporate inversions refer to the restructuring of MNEs such that the original parent in one economy becomes a subsidiary of a new parent in another economy. From an analytical viewpoint, it is worth separately identifying these types of restructurings in the ISA framework.

\(^{14}\) The DITT has presented a guidance note on Corporate Inversions at the February 2021 Committee meeting (see https://www.imf.org/external/pubs/ft/bop/2021/pdf/VM1/21-06.pdf) and the Financial and Payments Systems Task Team (FITT) is preparing a note on the Asymmetric treatment of retained earnings between direct and portfolio investment and potential extension to domestic relationships. The proposals contained in the notes may have implications for this recommendation.
18. The consultation exercises viewed option 3 to highlight MNE activities in the macroeconomic statistics as conceptually viable. However, it was considered too ambitious and resource intensive an undertaking to be implemented consistently across countries. Members noted that for this method to be implemented, it would require a significant redesign of surveys, compilation systems, methods, and data. A more feasible compromise could be to breakdown GVA by relevant industries according to domestic MNEs versus foreign controlled affiliates of foreign MNEs.

SECTION IV: RECOMMENDED APPROACH—CONCEPTUAL ASPECTS

19. The GZTT agreed to encourage the use of additional key indicators within the NAs that can better highlight the activities of MNEs. The preference is for gross measures in order to promote global comparability.

20. The GZTT reinforced the ISA supplementary presentation, which is supported by the existing SNA framework but adds additional granularity. The details include separately identifying domestic MNEs as well as identifying an aggregate foreign-controlled nonfinancial/financial corporations' category. The foreign/domestic split helps policymakers to distinguish between economic activities that are driven by domestic firms and foreign MNEs, which may have different implications for domestic welfare.

21. To appropriately record the activities of MNEs and to readily identify units that are part of the MNE group, there was need for a clearer definition of MNEs and clear distinction between the MNE and the MNE group. GZTT members recognized that to develop macroeconomic statistics—at the economy level—that reflect the scale and scope of MNE group activities, a statistical definition is required. The absence of a definition in the statistical manuals can inhibit accurate recording of MNE activities in the NAs.

22. The GZTT proposes a statistical definition of MNEs which emphasizes “control” as outlined in both the BPM6 and BD4. This definition supports policymakers’ need to separately observe those parts of the economy that are subject to control from nonresidents. Importantly, the notion of control rather than ownership is emphasized to ensure that data can be collected in a coherent and consistent manner and the detailed “foreign-controlled” breakout proposed in G20 DGI-2 Recommendation 8 can be implemented.

CONTROL WITHIN ENTERPRISE GROUPS

23. Control, as defined within the context of direct investment (DI) relationships refers to the ability of one enterprise to exercise the voting power associated with their shareholdings to affect strategic management decisions of another enterprise. Control is determined to exist through (i) an immediate DI relationship where the direct investor owns more than 50 percent of the voting power in the direct investment enterprise (DIE); (ii) indirect DI relationship arising from the ownership of voting power in one direct investment enterprise that owns voting power in another enterprise(s)—indirectly through a chain of control. This definition of control is aligned with the Framework of Direct Investment Relationship (FDIR), which is a generalized methodology for identifying and determining the types and
extent of direct investment relationships. It provides a delineation of all relationships between direct investors and their DIEs. Equally, the FDIR sets the rules for indirect transmission of control and influence along the chain of ownership.

24. **It is important to distinguish between ownership and control in order to differentiate direct shareholdings in foreign affiliates and ultimate control within MNE groups—accounting for indirect ownership, joint shareholdings, and cross shareholdings.** Ownership of affiliates is expressed by the investor’s shareholdings, which provide rights to distributed earnings and voting rights. Ownership has a lower threshold than control. Both the BPM6 and the BD4 emphasizes the 10 percent ownership rule for DI statistics. Notably, control can also exist in cases where less than 50 percent of voting power is held. However, *The OECD Handbook on Economic Globalisation Indicators, 2005* notes that “…control can exist even in the cases where less than 50 percent of voting rights is held—excluding cases where there is indirect control via a majority-controlled subsidiary.” For example, effective minority control can be achieved by agreements among minority shareholders actively working together or through effective cross-shareholding loops. When entities are clearly working together to exert control, such as members of the same family, then countries can treat them as a single unit, combining their ownership shares to show the control. However, in general effective minority control is not easily discernable and is subject to information that is not readily accessible to national compilers, such as the voting power of the entities within the group. Lastly, as noted in paragraph 9, the *2008 SNA* notes the general alignment with BPM6 and BD4 but allows for some flexibility. For consistency, and to avoid any subjective judgement, the GZTT proposes defining control as laid out in paragraph 23.

**DEFINITION OF MNE**

25. **Although a comprehensive definition of MNEs takes into consideration their organizational structure and business strategy, these do not lend themselves to direct quantitative measurement.** The statistical definition of MNEs, based on the concept of institutional unit and control, will support identifying foreign-controlled units as well as units that are part of domestic MNE groups for economic and statistical analysis.

26. **In this context, this Guidance Note (GN) proposes to define an MNE as a legal entity that:**

- has at least one nonresident affiliate or branch, and;
- exercises control over its affiliate(s) or branch(es) either directly—by owning over 50 percent of the voting power in the entity—or by indirect transmission of control.

The MNE is the ultimate controlling parent (UCP)—the direct investor at the top of the control chain.

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15 Annex 4 of the BD4 proposes two alternatives to identifying the extent and type of direct investment relationships—the Participation Multiplication Method (PMM) and the Direct Influence/Indirect Control Method (DIIC).

16 This definition of control as defined in the BPM6, pp 6.12–6.14, and reconciles the BPM definition of control to the SNA concept of foreign-controlled enterprises.

17 The DITT GN D.6 ‘Ultimate Investing Economy/Ultimate Host Economy and Pass-through Funds” proposes to streamline the concepts for ultimate investor (UCP/UIE/UHE) used in the standards. Notably, the UCP concept used in this GN would be consistent with the UIE concept under the proposed “Winner Takes All (WTA)” approach. GZTT will coordinate with DITT to ensure consistent terminologies are included in the definition of MNEs in the updated standards.
27. The MNE group consists of the MNE and the set of legal entities—regardless of their economies of residence—that are under the control of the same UCP.

28. MNEs maintain business operations—organize production, acquire assets, organize internal financial operations, and other activities—through its subsidiaries, branches, SPEs, and other affiliates across different economies. MNEs operate through vertically and horizontally complex group ownership structures. These may include one or more direct investors and DIEs, where the direct investors are intermediate parents, and not the UCP. The most common type of MNE group structure is the simple UCP-affiliates structure (with no further linkages)—that is, inward/outward direct investment depending on the residence of the UCP. Other common MNE group structures include more lengthy ownership chains with multiple cross-border links between affiliates and parents—such as cross-border global value chains (GVCs) managed by MNEs. Likewise, an MNE may organize some of its activities through joint ventures (JVs) with independent enterprises, in which usually, the MNE and the independent unit each owns 50 percent of the voting power. An increasingly prominent phenomenon among MNE groups, is the use of certain types of SPEs that are setup, usually in offshore financial centers to leverage tax and other fiscal advantages. In general, the economic relevance of these units are relatively small in terms of their contribution to GDP, but they may have large income flows and large financial stocks and flows. This practice tends to exaggerate the role of these centers in international financial transactions when in fact, some of the financial flows may be pass-through capital, specifically round-tripping. Chapter 4 of the Impact of Globalization on National Accounts details the types of SPEs used in MNE financial operations as well as the motivations for MNEs to establish MNE units within the group.

29. A simplified example of MNE relationships within FDIR is provided in Annex IV. To support the practical implementation of the proposed definition, the GZTT has developed a decision tree allocating institutional units, including units that belong to an MNE group to institutional sectors. The decision tree will be used for operational guidance to assist compilers in identifying MNEs for national NAs. The decision tree (shown in Annex V) extends Figure 4.1 of the 2008 SNA and includes the proposed classification of MNE units and SPE units.

SECTION V: RECOMMENDED APPROACH—PRACTICAL ASPECTS

30. The recommended options have varying practical implications for compiling institutions. Option I has been deemed the most practical by all consultations. For many economies, this involves more efforts on communicating with users and strengthening existing indicators within the SNA instead of...
developing new statistical products. Only a subset of GZTT members, construct net income measures on both a quarterly and annual basis. Therefore, the GZTT highlights gross income measures in order to promote cross country comparability. Given the importance of producing net measures, international organizations may consider providing technical assistance to help build capacity in economies with less statistical capacity to ensure that net income measures can be produced and disseminated on a regular basis and at the recommended quality. However, there are other practical challenges for NSOs to implement Options 2 and 3.

31. **Options 2 and 3 require considerable resources dedicated to data collection and linking especially where ISAs and eSUTs are not already being produced.** Therefore, a cost-benefit analysis must be considered, given that there are varying degrees of statistical sophistication among countries. Developing recommendations to differentiate between what constitutes material MNE activity for an economy to require measurement and immaterial and does not require measurement would be useful in the next update to the standards.

32. **The work on sectorizing MNEs and addressing the challenges they pose for the national approach involves several practical implications (see Annex VI).** The first is identification of the units involved. Majority of the respondents to the initial written consultation identified the lack of readily available granular information on MNEs; the resource intensity; and confidentiality issues as practical challenges to implement either Option 2 or 3. Properly accounting for MNEs will require several techniques to better capture the data and harmonize estimates across the various sets of statistics. Compiling institutions are increasingly challenged by the need to get information about MNEs’ activities, structures and subsidiaries, and global intra-group transactions. NSOs rely on data reported by MNEs that follow financial reporting, tax, and legal requirements. Consolidation at the economy level may result in measurement challenges as compilers are unable to view the complete picture. To the extent possible, compiling institutions should exchange aggregated data along with information on adjustments that deviate from company accounts to avoid asymmetries, while maintaining confidentiality.

**SECTION VI: CHANGES REQUIRED TO THE 2008 SNA AND OTHER STATISTICAL DOMAINS**

33. **The work on globalization, including the treatment of MNEs and Intra-MNE group flows, supports adding a new chapter to the 2008 SNA to include the definition of MNEs, and the agreed upon approach(es).** A comprehensive approach to the MNE discussion relative to the current fragmented discussion in the 2008 SNA would be beneficial to users. Changes to the 2008 SNA paragraphs 4.81 and 21.47 would be required to reflect the full alignment to the definition of the BPM6 and BD4 with regards to control. Furthermore, additional institutional sub-sectors will need to be identified. Specifically, national private corporations which are part of domestic multinationals subsector is required for both the domestically controlled nonfinancial/financial corporations’ sector. The GZTT further

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21 The work on the implementing The Template across G20 economies may also provide a gauge of the ease and relevance of implementation of this approach. DGI-2 Recommendation 8 states that all G20 economies compile and disseminate, annual and quarterly institutional sector accounts and balance sheets. As at the 2019 assessment, at least eight members had not met the target of compiling the current, capital and accumulation accounts annually. Nine members partially met these targets and were working to complete them.

22 This issue is being discussed by the Communication Task Team.
proposes the adoption of Figure 4 in Annex V, which includes the allocation of MNE units and SPE units to institutional sectors, as a replacement for Figure 4.1 of the 2008 SNA.

REJECTED ALTERNATIVE

34. **The different consultation exercises rejected option 4.** While these indicators can be useful to examine the impact of globalization, they should be left to the individual countries’ compiling institutions to define and compile based on their specific circumstances and policy needs. The GZTT noted that emphasis should be placed on the use of international comparable indicators—already existent within the current SNA framework.

**Questions for Discussion:**

1. Do the AEG and the Committee agree with the proposed definition of MNEs?

2. Do the AEG and the Committee agree to align the SNA with the BPM6 and BD4 on the question of control when defining foreign controlled corporations?

3. Do the AEG and the Committee support the inclusion of the proposed decision tree for allocating MNE units to institutional sectors?
Annex I. Referenced Documents


__________, 2010, Measuring Globalisation: OECD Economic Globalisation Indicators, OECD


http://www.unece.org/index.php?id=42106

http://www.unece.org/fileadmin/DAM/stats/groups/wggna/
Guide_on_Impact_of_globalization_on_national_accounts_FINAL21122011.pdf


Recommendation 8 of DGI.II requires all G20 economies to compile and disseminate institutional sector accounts, on a quarterly and annual frequency. This is based on the internationally agreed template. The template provides minimum and encouraged breakdowns by sector and instrument.

**Nonfinancial Corporations**

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</tbody>
</table>

- **Domestically controlled nonfinancial corporations**
  - Public nonfinancial corporations
    - Of which: Public nonfinancial corporations, which are part of domestic multinationals
- **National private nonfinancial corporations**
  - Of which: National private nonfinancial corporations, which are part of domestic multinationals

**Financial Corporations**

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</tr>
</tbody>
</table>

- **Domestically controlled financial corporations**
  - Public financial corporations
    - Of which: Public financial corporations, which are part of domestic multinationals
- **National private financial corporations**
  - Of which: National private financial corporations, which are part of domestic multinationals

= Target

= Encouraged
Annex III. Extended Supply-Use Tables the 2008 SNA

1. Ahmad (2018) proposes extensions to the 2008 SNA supply-and-use tables framework (2008 SNA, Chapter 14) that could improve users’ ability to better understand the impact of globalization on the domestic economy. One form of this extension is to separately show the breakdown of activities into more homogenous groupings—such as by ownership status (foreign-owned affiliates, domestic MNEs with affiliates abroad, and domestic firms with no affiliates). The ownership focused eSUT is illustrated in figure below:

![Figure 2. ‘Ideal’ Breakdown of Columns and Rows in Supply-and-Use Tables](image)

Note: Where foreign-owned is used, foreign-controlled as defined in the GN is recommended.

2. However, as noted this level of detail may be administratively burdensome for most countries. Moreover, for each country, only selected activities may need to be decomposed at to show the foreign-controlled units. Therefore, the GZTT that a more feasible compromise could be to breakdown GVA by relevant industries according to domestic MNEs versus foreign-controlled affiliates of foreign MNEs. Notably, the approach proposed by Ahmad (2018) is deliberately not prescriptive. How countries develop eSUTs that meet the statistical challenges presented by globalization necessarily depends on national circumstances—driven by the statistical capacity and the policy demands.
Annex IV. Figure 3. Simplified Example of an MNE Relationship Within Foreign Direct Investment Relationships\textsuperscript{23}

Source: Adapted from BPM6 Box 6.1 to show MNE relationships within FDIR

1. The percentages show voting power in the subsidiary or associate. (*) indicates immediate subsidiary or associate.

2. A is the UCP of this MNE group. In Economy 1, enterprises B and M belong to the group insofar as B is directly controlled by enterprise A. Enterprise A is a domestic controlled corporation that is part of the MNE group. Enterprise M is indirectly controlled by A through enterprise J. Enterprise M represents a case of round tripping. M would be considered to be a domestically controlled unit that is part of the MNE group.

3. In Economy 2, enterprises C, D, and E are part of the MNE group. C is an immediate subsidiary of A. D and E are indirectly controlled by A through C. In contrast, F and G are associates of A (through D and E). Indirectly, A owns less than 50% or F and G—they are therefore excluded from the MNE group, although they would be included in DI statistics.

4. In Economies 3 and 4, all enterprises - H, I, J, K, and L belong to the MNE group as they are controlled directly or indirectly by A. Enterprise L belongs to the group since 55% of its voting power are held by enterprises I and K, which are themselves indirect subsidiaries of enterprise A.

5. The MNE group includes domestic and foreign affiliates B, C, D, E, H, I, J, K, L, and M of the ultimate controlling parent A.

6. More complex ownership structures such as joint-ventures, cross-shareholdings have not been included in this example.

\textsuperscript{23} Subsidiaries and associates are defined in the BPM6 paragraph 6.15. and BD4 Annex 4 notes that in the FDIR, it is necessary to establish whether each enterprise under consideration is a subsidiary, an associate, or is not relevant in DI—all three categories when combined being exhaustive and individually mutually exclusive. Those enterprises which are subsidiaries or associates are included in the direct investment relationship, while those categorized as not influenced are excluded.
Annex V. Figure 4. Illustrative Allocation of Units to Institutional Sectors for National Accounts

24 See the GZTT Guidance note on SPEs for the SPE identification criteria and the proposed classification of SPEs.

25 Notes to the decision tree: (i) Units that produce financial services are defined in the 2008 SNA paragraph 4.29 as those units for which their primary activity includes the provision of financial services including financial intermediation, insurance and pension fund services, and units that provide activities that facilitate financial intermediation; (ii) Blue and orange boxes represent the sector classification of the institutional units.
Annex VI. Practical Aspects/Challenges of Identifying MNE Units

1. Despite their growing importance and wide-ranging policy implications, official statistics on MNEs remains sparse. The measurement challenges associated with MNEs are a function of their complex ownership structures; wide range of activities; absence of uniform data; and the limited possibility for NSOs in any one economic territory to obtain a ‘complete’ view of the group operations.

2. In general, NSOs currently produce range of statistics on economic activity, international trade, direct investment, and employment—all of which encompass the activities MNE units operating in the domestic economy. However, to the extent that MNEs organize their activities globally, national statistical compilers will see only parts of their global activities. Consequently, a complete and symmetric view of the MNE group activities requires compilers to be able to view each entity within the group in relation to the others. Furthermore, while most national business registers (BRs) identify membership of foreign-controlled MNE groups and the country of the UCP (as an input to DI statistics), few capture economic data on activities outside the domestic economy.

DATA SOURCES USED TO IDENTIFY MNE GROUPS

3. National compilers must rely more on administrative data sources and business surveys to understand the ownership chains of MNEs in order to better understand and compile data on the MNE group’s global business activities. Sources used to compile data for MNEs should include, but also extend beyond, DI statistics.26 The first step is to identify the units within the domestic economy that are part of MNE groups. To be able to determine direct/indirect control of entities, national compilers may have access to different sources. These are mostly:

a. business registers: The completeness of the registers should be carefully assessed when targeting MNEs. Statistical BRs are generally developed and updated from a number of different sources. The administrative sources may include tax registers, compulsory registration systems maintained by regulators, social security data, and other public or private sector data holdings. DI information could be linked to the BR, but in many countries, there are legal or administrative limitations that prevent linking DI information that is usually maintained by central banks with the business register maintained by NSOs.

b. regulatory institutions: including local and international stock exchanges, local tax authorities and investment promotion agencies—prevalent in economies that rely on inward direct investment—may have information about shareholding structure of large and complex enterprises.

c. Local enterprise group surveys: provided they contain information on shareholders’ structure. As an example, Box 1 below describes the sources used to establish the OECD ADIMA and the UN Global Groups Register (GGR) databases.

26 The DITT have produced two GNs on the Sectoral Breakdown of DI Statistics and Reconciling BPM-Based DI and Activities of MNEs Statistics. The recommendations of these two notes will be useful in this regard.
Box 1. Data Sources Used to Establish the ADIMA\textsuperscript{27} and the GGR\textsuperscript{28} Databases

<table>
<thead>
<tr>
<th>ADIMA:</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Commercial Data Sources:</strong> Include databases such as <em>Orbis</em>—one of the largest cross-country databases of enterprise information compiled from a large variety of private and public data providers, with near-global coverage.</td>
</tr>
<tr>
<td><strong>Company Reports and Regulatory Submissions:</strong> Listed companies are typically required by regulation to make all relevant information on their activities and performance publicly available on a regular basis, for example via independently audited quarterly and annual reports. These documents contain financial statements, segment information as well as subsidiary data at various levels of detail. Likewise, listed companies may be required to reports to regulators, such as the U.S. Securities and Exchange Commission. These lists thereby form a high-quality, but not fully exhaustive source of data on U.S. MNEs’ affiliates, depending on consolidation strategies.</td>
</tr>
<tr>
<td><strong>LEI Relationship Records:</strong> The Legal Entity Identifier (LEI) is a 20-character reference code to uniquely identify entities engaged in financial transactions.</td>
</tr>
<tr>
<td><strong>Big Data Sources:</strong> These include WikiData, Common Crawl and other big data sources that are used to find business names and associated IDs and harmonize data collected from other sources.</td>
</tr>
</tbody>
</table>

To fully leverage all available information, the affiliates identified by each of the sources were combined into one single database that uses a common data structure. This involves extracting metadata for each unit, so for example data regarding the location and address. In addition, connections are also extracted.

<table>
<thead>
<tr>
<th>UN Global Groups Register (GGR)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Company Reports and Regulatory Submissions:</strong> These include company financial filings, company annual reports available publicly.</td>
</tr>
<tr>
<td><strong>Legal Entity Identifiers:</strong> A global Legal Entity Identifier (LEI) in the form of a reference code that uniquely identifies legally distinct entities engaged in financial transactions and allows for mapping out relationships (who owns whom).</td>
</tr>
<tr>
<td><strong>Big Data Sources:</strong> These include google and Wikipedia search data.</td>
</tr>
</tbody>
</table>

Data from these different sources were merged through fuzzy matching to provide the list of all the companies related to the UCP.

\textsuperscript{28} [https://unstats.un.org/unsd/business-stat/GGR/](https://unstats.un.org/unsd/business-stat/GGR/). Only the largest 100+ MNE groups are in the current (prototype) version.
4. The practical challenges extend beyond identifying the units for which data are required. Global micro data linking—combining data on the MNE groups along with other indicators is needed to fully understand the entire operation of MNE groups. Bilateral exchange of business demographic, accounting, or business microdata is a concrete step forward to compiling the data needed for MNE groups. Data sharing across economies is critical for NSOs to achieve a holistic view of the MNEs’ activities, avoid asymmetries, and properly reconcile the data while maintaining confidentiality. Significant coordination is needed for micro-data exchange among domestic statistical agencies and between NSOs of counterpart countries. However, it is widely known that direct access and data sharing at the international level has proven to be limited due to strict confidentiality and other legal constraints governing these data.

5. There are several ongoing data exchange efforts at the international and regional levels such as the establishment of common business registers for MNE groups. The UNSD is in the process of developing a GGR that shows the legal structure of the largest MNEs globally. In Europe, much groundwork has been laid in this area with the establishment of the EuroGroups Register (EGR). The EGR is the main source used by NSOs in Europe to compile statistics related to MNEs. It provides consistent and updated information on MNEs to national statistical compilers in the EU to facilitate the production of consistent, high quality statistics. These registers can assist economies in understanding the global links for MNE units in their country; facilitate the data sharing among countries; and be used as public data sources for building their own registers.

6. The following information—that are part of the global enterprise registers are key to identifying MNEs groups and maintaining consistent datasets on MNEs group structure across countries.

- Control of the unit: (a) the resident legal units that are controlled by the entity; (b) the resident legal unit that controls the entity;
- Economies of registration, and identity number(s) or name(s), and address(es) of the nonresident legal unit(s) which are controlled by the entity;
- Economies of registration, and identity number or name and address of the nonresident legal unit which controls the entity;
- Identity number of the UCP (legal entity), if the UCP is resident. If the UCP is nonresident, then identify its country of registration (optionally the identity number, name and address can be collected if available). This information can be found from the websites of MNE groups, annual reports, corporate directories, investors’ relationship information, or company profiles.

7. Other issues include the need for improved communication with MNEs and access to data that need to be aligned with national accounts guidelines. Therefore, more structured institutional arrangements in compiling institutions are important for understanding and compiling estimates for MNEs. It is encouraged for countries with a significant MNE presence to establish Large Case Units (LCUs). The main objective of an LCU is to provide consistent data originating from the largest MNE groups, to the relevant statistical domains and facilitating consistent recording of MNE activities in national accounts and balance of payments. This is ensured by collecting timely and accurate data for MNEs at the beginning of
the statistical production process, ensuring prompt reaction to data changes, and resolving discrepancies before they are processed by either the national accounts, trade, or external sector statistics compilers. Another key role of the LCU is to delineate and classify the statistical units of the MNEs—depending on whether the data are being compiled on an establishment or enterprise basis.

8. **Already several countries have established LCUs, dedicated to all aspects of managing the collection and analysis of data from large MNEs.** Establishing LCUs is an important strategic step for international data sharing and appropriate data reconciliation. Notably, the LCUs should be engaged in ongoing consistency assessment across all statistical data, from either survey or administrative sources, and within and between the statistical domains, that relate to a particular MNE group.

9. **The selection of MNEs for national accounts should be based on firms with complex ownership structures, large volume of activities, rearrangements and relocations including corporate inversions, and those firms that own IPPs.** The activities of these firms are generally difficult to measure and may cause statistical asymmetries across countries.29 Once the population of MNE groups has been identified by the NSO, the data items to be shared should be identified.30

10. **Other relevant data for the group can be collected from financial statements or management accounts (internal reporting).** Consolidated financial statements are available from the MNE for the group. Financial statements are also available at the MNE unit (legal entity) level and are prepared for external reporting purposes, while management accounts are usually organized by business processes. Therefore, management accounts are a better source for high-quality information from the MNEs for statistical purposes, although classification and measurement schemes tend to be not only country-specific but also enterprise-specific.

11. **To fully exploit the informative potential of such internal and external business accounts based on international accounting standards, national statistical authorities must closely engage with MNEs.** At the same time, NSOs must strengthen their capability to classify, analyze and integrate those data in standard statistical processes. As a result, these activities require quite labor-intensive efforts to be carried out by skilled statisticians and business analysts.

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29 *The UNECE Guide to Sharing Economic Data (2020)* provides additional guidance on the data sharing and the experiences of other countries in developing units in NSOs to deal with MNEs.

30 The key variables include key globalization indicators, monetary flows between countries, restructuring and relocations, and accounting standards information so that data can be reconciled properly.
Annex VII. Outcome of AEG Discussion

THE AEG WAS ASKED TO REFLECT ON THE FOLLOWING QUESTIONS:

- Does the AEG agree with Recommendations I and II, to (i) emphasize existing “national and net” indicators within the existing SNA framework and (ii) recommending additional breakdowns (e.g., new sub-sectors) which highlight the activities of MNEs?
  a. Do members agree that additional indicators that extend the current SNA concepts such as GNI* or mainland GDP should not be included in this update?

- Is there any preference on which existing indicator(s) should be highlighted (e.g., GNI or NNI)?
  a. What is the AEG’s opinion on the GZTT proposal to highlight gross income measures in order to promote cross country comparability.

- What is the AEG opinion on the proposal to define MNEs by emphasizing the control aspect shown in the Foreign Direct Investment Relationships (FDIR) as in BPM6 and BD4?

- Which of the three approaches to highlighting MNE activities would be considered the highest priority by data users:
  a. Institutional sector accounts (following the breakdown into foreign-controlled and domestically controlled corporations as designed in recommendation 8 of G20 DGI 2)
  b. Gross value added by industry broken down into foreign-controlled and domestically controlled units
  c. Extended supply and use tables

SUMMARY OF DISCUSSIONS

1. The AEG agreed with the Recommendations I and II to emphasize existing measures. These are within the current SNA framework and to introduce additional granularity to highlight the activities of MNEs. This additional granularity may be in the form of new sub-sectors, as in the case of the ISA framework or more granular industry breakdowns in the case of the GVA proposal.

2. The AEG unanimously agreed that concepts which are outside core SNA framework such as GNI* or mainland GDP should not be included in the update of the SNA. While these measures may be useful, they are not internationally comparable and should therefore be left to countries to implement based on their policy needs.

3. On the preferred indicators, the AEG agreed with the conceptual superiority of using net measures such as NDP and NDI relative to gross measures to facilitate the analysis of the impact of MNEs activities on the domestic economy. However, the need to develop improved guidance to produce internationally comparable measures of CFC was also recognized.

4. The AEG agreed that national accounts should define MNEs by emphasizing the control aspect shown in the FDIR. However, it also noted the conceptual tension between control and
ownership as well as ownership and residency. The members highlighted the need for a clear framework to determine control to facilitate data collection efforts.

5. **Regarding the approaches to highlighting MNEs’ activities in the national accounts, the AEG acknowledged the analytical usefulness of introducing additional breakdowns.** These are (a) institutional sector accounts (disaggregated into foreign-controlled affiliates and domestically controlled affiliates of MNEs, as designed in recommendation 8 of G20 DGI.II); (b) gross value added by industry disaggregated into foreign-controlled and domestically controlled units; and (c) extended/satellite supply and use tables. Of note, the AEG expressed that NSOs should be allowed to decide which method to adopt based on their statistical production process and the analytical and policy needs of users.

6. **Finally, the AEG recommended that the GZTT coordinates with the United Nations Committee of Experts on Business and Trade Statistics, which is working on global groups registers and statistical business registers, to ensure the development of consistent recommendations.**
Annex VIII. Outcome of the Direct Investment Task Team (DITT) Consultation

CONSULTATION 1—QUESTIONS TO THE DITT:

- Do members agree that more focused communication efforts will be needed to emphasize the use of existing indicators?

- Do members agree with the proposal to define MNEs by emphasizing the control aspect shown in the FDIR as in the BPM6 and BD4?

- Please rank (1–3) which additional breakouts should be given the highest priority:
  - Institutional sector accounts (following the breakdown into foreign-controlled and domestically controlled corporations as designed in Recommendation 8 of G20 DGI 2): ______
  - Gross value added by industry broken down into foreign-controlled and domestically controlled units: ______
  - Extended supply and use tables: ______

OUTCOME OF CONSULTATION

1. **The DITT members all agreed that there should be more focused communication by NSOs to emphasize the indicators—beyond GDP—that currently exist within the SNA framework.** Furthermore, members agreed that regardless of whether NSOs choose to adopt either the ISA, GVA, or ESUTs approach to provide additional granularity, increased user education regarding indicators such as GNI, GNDI, NNI, and NNDI would be analytically useful.

2. **The DITT members generally agreed with the proposal to define MNEs by emphasizing control as defined in the FDIR.** However, the issues of how to delineate a chain of relationships and the issue of compiling data for the enterprise relative to the establishment were also recognized. The DITT noted that a precise definition of control and clearer definition MNEs are required.

3. **On the three approaches to highlighting MNEs, there was no clear preference from the DITT although all responses noted the extended supply and use table approach was least favored.** The DITT noted that this approach may be resource intensive and may raise issue of confidentiality, especially for smaller economies. Members of the DITT raised the issue of data availability to implement the ISA approach. That is, where statistical operations are based on surveys or models instead of financial records, this approach may be less feasible. The DITT also pointed out some practical issues that may impact the implementation of these approaches.
CONSULTATION 2—QUESTIONS TO THE DITT:

Following the first round of consultations, the GZTT proposed a definition for MNEs and a decision tree for allocating institutional units that belong to MNE groups to the SNA foreign controlled sector and the domestically controlled MNE subsectors. During the second round of consultations with the DITT, members were asked to respond to the following questions:

- Do members agree with the proposed definition of MNEs as provided in this GN?
- Do members agree with classifying institutional units within the institutional sector accounts according to the residence of the ultimate controlling parent (UCP) (e.g., if the UCP is nonresident then the institutional unit is foreign controlled and if the UCP is resident the unit is part of the domestic MNE)?
- Do members agree with the proposed decision tree for allocating MNE units to institutional sectors?
- Taking into consideration the extensive discussion on defining more comprehensive statistics on MNEs, do members support that the next update of the SNA and BPM6 include guidance on MNE activity, for economies where MNEs are material and provide the supplementary statistics?

OUTCOME OF CONSULTATION

4. Most respondents highlighted a need to more clearly distinguish between the MNE and the MNE group. The consultation noted the needed to more explicitly cover inward direct investments, global value chains, the treatment of SPEs including round-tripping. In response, the GZTT has restructured the definition as reflected in paragraph 26 and paragraph 27 to clearly state the difference between the MNE and the MNE group. Accordingly, the MNE is “a legal entity that has one nonresident affiliate or branch and exercises control over its affiliate(s) or branch(es) either directly—by owning over 50 percent of the voting power in the entity—or by indirect transmission of control.” The MNE group consists of the “...the parent (MNE) and the set of legal entities—regardless of their economies of residence—that are under the control (direct or indirect), of the same UCP.” Additional information was also provided in the GN (paragraph 28) to reflect the various ownership or organizations of MNE groups.

5. In response to question 2, members of the DITT generally agreed with the geographical classification of MNE groups according to the residence of the UCP—such that institutional units that belong to MNE groups can be classified as purported by decision tree (Annex V of the GN).

6. The DITT members generally agreed with the decision tree as shown in Annex V. However, some uncertainties regarding the treatment of round-tripping were identified—pass-through funds invested in an affiliate in a second economy, before being re-invested into a third affiliate in the ultimate investing economy (UIC). The GN was revised to show that the domestic affiliate is treated as a national corporation that is part of domestic MNEs—even though the immediate parent is nonresident. The classification of MNE units according UCP dictates this treatment.