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For discussion

Compilation Guidance Note on Factoryless Goods Production

Compilation Guidance Note on Digital Intermediation Platforms¹

The treatment of processing arrangements introduced in BPM6, along with related cross-border goods flows, marked a significant advancement in capturing global manufacturing activities—especially for principals outsourcing material processing to nonresident units. However, factoryless goods production was only addressed more recently in the 2025 SNA and BPM7 frameworks.

This guidance comprehensively outlines the nature, classification, and statistical treatment of factoryless goods production (FGP) within international macroeconomic statistics. It highlights the critical role of Intellectual Property Products (IPP), the importance of clearly distinguishing FGP from processing and merchanting, and the need for employing multiple data sources and reconciliation techniques to ensure accurate measurement of FGP activities. The objective is to improve the visibility and consistency of FGP in national accounts and the balance of payments, thereby reflecting the continually evolving global production landscape.

SECTION 1: INTRODUCTION

1. One of the main characteristics of globalization in the modern era is the fragmentation of production processes. Companies can outsource various stages of manufacturing to specialized units, both domestically and internationally. A specific example of this fragmentation is known as factoryless goods production. In this scenario, a principal unit provides the technical specifications necessary to create a product but is minimally involved in actual manufacturing. When the principal mainly contributes intellectual property products (IPP) and the contractor supplies most or all of the required materials, the principal is referred to as a factoryless goods producer (FGP). In this compilation note, the acronym FGP is also used to refer to factoryless goods production. This term indicates that while the principal is considered a manufacturer, it does not need to perform any manufacturing activities at its own facilities. Nevertheless, it maintains control over the goods produced—what is produced, how they're produced, and what happens after they are produced.
2. This note discusses the treatment of FGPs in the macroeconomic standards. It reviews the development of the current treatment of FGPs. It further discusses the concepts involved and the relationship with other forms of global production; the rationale for its treatment; and the economic impact of the treatment. The note explains compilation challenges and provides guidance drawing on the practices of national accounts and balance of payments compilers. It recommends better visibility of these types of activities and where they can be shown in the accounts.
3. The white cover editions of the *BPM7* and the *2025 SNA*, released in March 2025, featured sections that define FGPs and outline their treatment in detail. The 2024 release of *ISIC Rev. 5* also expanded the definition of manufacturing to cover FGPs. Unlike *ISIC Rev. 4*, which focused on physical transformation, *ISIC Rev. 5* classifies as manufacturers those units that organize and control the production—even if the actual processing is outsourced to the contractor—provided that they assume production risk and supply key inputs, including IPPs. This change brings the *ISIC Rev. 5*, *BPM7*, and the

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2025 SNA into closer alignment on this issue, ensuring consistent treatment of FGPs across national accounts and balance of payments statistics.

SECTION 2: DEFINITION AND CONTEXT

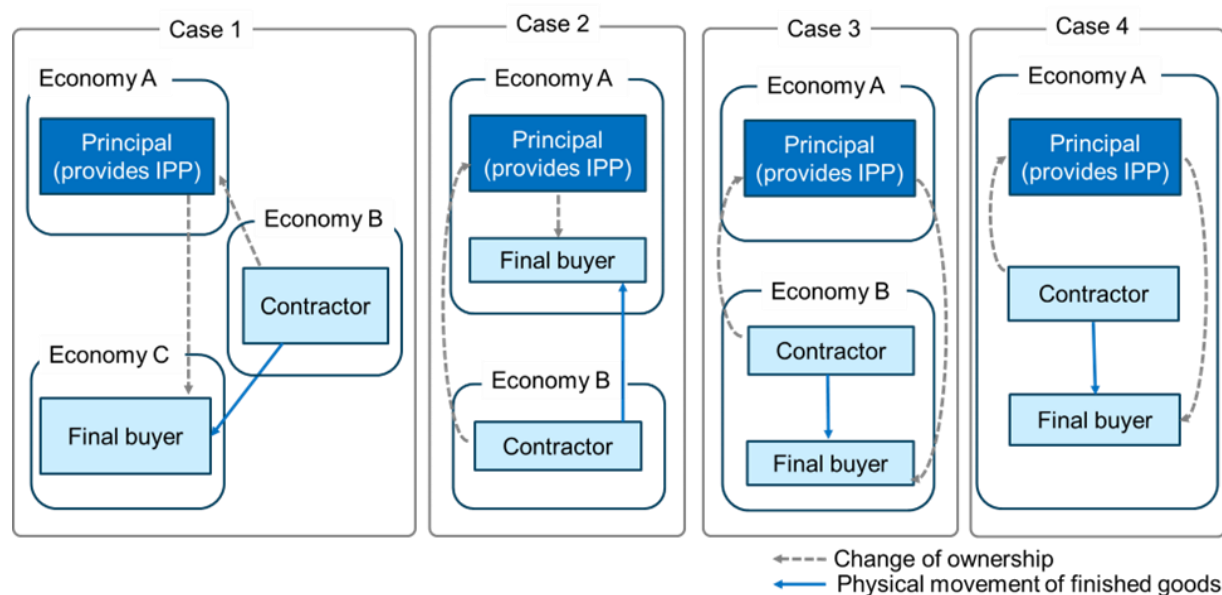
4. FGPs represent a distinctive organizational model within the broader landscape of global manufacturing arrangements. The combined 2025 SNA/BPM7 glossary defines an FGP as *a principal that controls the production of a good by undertaking the entrepreneurial steps and providing the technical specifications required to produce the good, but that outsources all or most of the material transformation process required to produce the output*. This definition of FGPs reflects the shift in manufacturing paradigms, where the core value-adding activities—such as design, branding, and IPP ownership—are retained by the principal, while the physical production is outsourced to contractors. The FGP is emblematic of the fragmented production processes enabled by globalization, allowing firms to operate without owning or managing physical factories.

5. FGP arrangements are part of broader global production structures, which also include processing arrangements and merchanting. However, the FGP arrangement is distinct from traditional processing: in FGPs, the contractor typically owns the material inputs, while the principal provides the intellectual property or know-how without receiving payment for its use. Despite the contractor's role in manufacturing, the principal in an FGP arrangement remains deeply involved. It owns the IPP (or has rights to use the IPP) that are embedded in the final goods, controls the production process, and manages marketing and sales. This differentiates FGP from merchanting also, where the merchant merely buys and resells goods without any involvement in production. The evolution of statistical standards reflects the complexity of these arrangements. While *BPM6* emphasized the treatment of processing, it did not fully address FGPs. This gap might have resulted in inconsistent practices across countries.

6. The *ISIC Rev. 5* recommends that FGP activities be classified in the manufacturing industry (Section C), within the same class that would apply if they undertook production themselves. This classification is contingent upon the FGP owning, or having right to use, the intellectual property input to the production process. Otherwise, the FGP is simply buying the completed good from the contractor with the intention to re-sell it. This ensures that the manufacturing output of FGPs reflects the input of the design specification or other intellectual property by the principal, while their intermediate consumption includes imports of the goods from the contractor (at the cost of the material inputs plus the manufacturing costs).

7. Figure 1 (case 1) shows an illustrative example of a factoryless goods production arrangement. In this scenario, the principal located in Economy A has the know-how and engages the contractor in Economy B to manufacture a high-end jacket. The contractor in Economy B procures the required materials and produces the jacket according to the design provided by the principal, without paying for the design (IPP). Upon completion of the manufacturing, the principal purchases the finished jacket from the contractor at a price that encompasses both the material inputs and the work by the contractor. Subsequently, the principal sells the finished goods to the final buyer in Economy C, with the sales price incorporating additional value attributable to the product design and the branding (IPP). Notably, the finished jacket is physically transported from Economy B to the final buyer in Economy C.

Figure1. Factoryless goods production



8. There are alternative scenarios in which two or more of the entities involved are located within the same economy. For example, as shown in case 2 of Figure 1, the principal may physically import goods from the contractor for sale within the principal's own economy. In such cases, both the BOP and the IMTS will identify the same partner country for the transaction. However, they may not report the same values for the trade flows because the valuation methods used in BOP and IMTS can differ. Case 3 describes a situation where finished goods are sold in the same economy as the contractor, which is common in larger economies (See Box 2, Example from China). In these cases, there are no entries in the IMTS upon completion of the manufacturing process and subsequent sales of the goods. However, the BOP of Economy A should record first imports from Economy B, followed by exports to Economy B. Similarly, Economy B should record exports to Economy A, followed by imports from Economy A. Case 4 illustrates a case in which the principal, contractor, and final buyer are all residents of the same economy (Economy A). In this scenario, there are no cross-border flows, and therefore no BOP entries. All transactions are captured within the national accounts as production and intermediate/final consumption. The significance of this last case is that the principal and the contractor are classified in the manufacturing industry according to *ISIC Rev. 5*.

9. The four scenarios outlined above highlight how FGP arrangements can vary depending on the location/residence of the principal, contractor, and buyer. To ensure that these cases are recorded consistently across economies, it is important to distinguish FGPs from other manufacturing arrangements, such as *goods for processing*. Although both involve outsourcing of material transformation, their underlying differences stem from ownership of goods, control and use of IPP, and the nature of the outputs. Clarifying these distinctions is essential to avoiding double counting and ensuring consistent treatment across the balance of payments and national accounts. Some key differences are highlighted below.

FGP VERSUS PROCESSING

9. There are key differences between a processing arrangement and FGP. These differences include the following:

Ownership of Material Inputs:

- In a processing arrangement, the principal retains ownership of the material inputs throughout the production process.
- In contrast, an FGP acquires the finished goods from the contractor, but the FGP is not responsible for acquiring the raw materials.

Role of IPP:

- In a processing setup, the principal may own or pay for the use of IPP involved in production, but IPP input is not required for the arrangement to qualify as processing.
- In an FGP arrangement, the principal must provide IPP as an essential input (to be classified as a manufacturer).

Intermediate Consumption:

- For processing arrangements, the material inputs and payments for manufacturing services are recorded as the principal's intermediate consumption.
- For FGPs, the finished goods purchased by the principal from the contractor represent the principal's intermediate consumption.

Industry Classification (see Table 1):

- In processing arrangements, the principal is classified as a manufacturer, while the processor is classified as providing a service (manufacturing services on physical inputs owned by others).
- In FGP arrangements, both the FGP and the contractor are classified within the manufacturing industry.

Table 1. Output of the Principal and Contractor by Production Arrangement

Type of arrangement	Output services	Output Goods
Processing		
Principal		X
Contractor	X	
FGP		
Principal		X
Contractor		X

10. There are variations to the provision of material inputs in global manufacturing arrangements. In a processing arrangement the principal owns and retains ownership of most or all of the goods as material inputs during the production process. This definition allows the processor to provide some of the material inputs, the cost of which would subsequently be included in the manufacturing service fee charged to the principal. Conversely if a principal that provides only some material inputs, as well as the IPP, it would be considered an FGP.

11. The contractor may purchase material inputs from the principal. Under FGP the contractor provides most of the material inputs. However, it is possible that these are sourced directly from the principal with a change of ownership between the two parties. It is further possible that the FGP sells the material inputs to the contractor via merchanting. This scenario is not unlikely as it illustrates how involved the principal is in the production process. In a processing arrangement it is also possible that some goods are sold by the principal to the processor (including via merchanting), as long as the principal provides most of the material inputs to the production without a change of ownership.

12. Although processing and FGP arrangements differ, their underlying motivation can be similar. In a processing arrangement, the principal may provide IPP to the production process. The choice between, on the one hand, a goods for processing arrangement where the principal purchases material inputs for further processing abroad and sells the finished goods to a third economy, or, on the other hand, FGP, where the principal arranges for a contractor to purchase the inputs, complete the manufacturing, and then to ship the finished goods to the third economy (with the principal buying them and reselling the goods to the third party), often depends primarily on market access. This decision is influenced by whether the principal or the contractor has better access to relevant markets for the material inputs, while in both cases the production process follows the principal's specifications. This is illustrated in Box 1.

Box 1. Model Example Comparing a Goods-for-Processing Arrangement with an FGP Arrangement

A principal in country A produces pharmaceutical products and owns the patent for the drug's production. Raw materials for the production of the drug are made in Economy D. Apart from packaging—provided by the unit in Economy B (processor or contractor) at a cost of 1 unit of currency per 100 units of final product value—there are no other significant inputs. The finished goods are sold to consumers in Economy C.

Good Sent for Processing

- The principal purchases the raw materials from country D for 20.
- The principal ships the raw materials to a [related] processing plant in Economy B.
- The processor is paid a fee of 25 units to complete and package the product (the processor does **not** take ownership of the material inputs).
- The finished products are then sold by the principal to country C for 100 units.

Value added:

- Principal: $100 - 20 - 25 = 55$
- Processor: $25 - 1 = 24$

Factoryless Goods Production

- The principal in economy A contracts a manufacturer in Economy B to purchase the raw materials and produce and package the drug.
- The contractor purchases raw materials from Economy D for 20 and manufactures the product.
- The contractor sells the goods to the principal for 45.
- The finished products are then sold by the principal to country C for 100 units.

• *Value added:*

- Principal: $100 - 45 = 55$
- Contractor: $45 - 20 - 1 = 24$

Note: In both cases the principal's markup is large compared to the cost of production. This represents the return to IPP, and branding for the principal.

THE ROLE OF IPP

13. In FGP arrangements, IPP plays a central role in defining the principal's contribution to the manufacturing process. Unlike traditional manufacturers, FGPs outsource the physical transformation of goods to third-party contractors while retaining ownership of the product design, technical specifications, patents etc. The principal's control over IPP allows it to dictate how goods are made, even though it does not operate any physical manufacturing facilities.

14. IPP is the cornerstone of the FGP model enabling firms to maintain strategic control and economic ownership of goods without engaging in direct production activities. This justifies the higher resale price when the principal sells the goods to end consumers or distributors.

15. *BPM7* provides some guidance on how to assess whether the IPP input is sufficient to classify the arrangement as FGP. The assessment is based on comparing the value of IPP with the cost of production of the good. Paragraph 10.67 of *BPM7* states, "the input values of intellectual property products as well as marketing assets (such as trademarks, brand names and logos) supplied by the factoryless goods producer will be at least as large as the amount paid to the contractor less the cost to the contractor of the material inputs."

16. The contractor may use the IPP in the production process, but it does not pay the FGP for the right to use. Under the FGP arrangement the principal either owns or pays for the rights to use the IPP. The blueprint or technical specifications are utilized by the contractor to manufacture the good to specified requirements. For correct classification of FGP, it is crucial to establish that the contractor does not pay the principal for the rights to use the IPP.

17. The recognition of IPP (of the principal) and the product design as integral to the production process is why FGPs are classified as manufacturers. This classification provides a clearer allocation of innovation-driven value creation to the economy. It recognizes the value that IPP inputs embedded in the good contribute to the value of the good. This treatment also bears direct implications for the measurement of output or value added in the economy. The classification of FGPs as manufacturers ensures a more accurate recording of gross value added (GVA) for the manufacturing industry—and the economy, since the activities of principals who control production and own the associated IPP are recognized as part of domestic production. This is important since the value-added of the FGP (as a manufacturer) would generally be larger than the margin associated with distribution activities (the recommended classification in *ISIC Rev. 4*).

18. The principal does not need to own the IPP to be classified as an FGP. In FGP, the principal provides the IPP input into the manufacturing process, but may, in fact, pay another unit for the right to use the IPP. Often, however, a licensed copy of the IPP, owned by another unit, may also be treated as a fixed asset on the accounts of the principal if it meets certain criteria (it is expected to be used in production for more than one year and the licensee assumes all the risks and rewards of ownership). If the principal owns the IPP, or holds a license that qualifies as a fixed asset, then the use of IPP in production is considered a return to capital. Conversely, if the principal pays for a license that does not meet the fixed asset criteria, the payment is treated as intermediate consumption.

19. The impact on trade in goods and industrial classification is largely the same whether the principal owns the IPP or not. If the principal pays another unit for the right to use the IPP and outsources the complete production to a contractor then the principal is considered an FGP, classified in

manufacturing industry similar to a principal who owns the IPP. The difference between the price that the FGP pays the contractor for the finished goods, and the price that the FGP receives from the final customer is the same, regardless of IPP ownership or licensing. However, the value added of the principal may differ in each case: owning the IPP typically results in higher value added compared to paying a license fee. On the other hand, all else being equal, a principal that owns the IPP will incur higher depreciation costs.

20. The FGP may either have full ownership of the IPP used in production or pay for the right to use the IPP. A decision tree to determine the economic ownership of an IPP involved in global production is presented in the joint *2025 SNA Chapter 23 / BPM7 Chapter 15, "Globalization"*. A third scenario is the cost-sharing arrangement described in Guidance Note G.5, *Economic Ownership of Intellectual Property Products: Recording of Intra-MNE Transactions*, where research costs at one location are financed by multiple affiliates within the international group. These contractual agreements involve participants sharing certain costs and risks in exchange for a proportional interest in the expected outcomes. Regardless of the scenario, the treatment under FGP remains consistent.

IMPLICATIONS FOR THE NATIONAL ACCOUNTS AND BALANCE OF PAYMENTS STATISTICS

21. The classification of FGPs as manufacturers—rather than distributors or merchants—has important implications for macroeconomic statistics. It supports the gross recording of international goods transactions involving FGPs, ensuring that the economic contributions of principals who control production and own intellectual property are reflected in national accounts and balance of payments data. The updated treatment also emphasizes the need for adjustments to customs data when the physical movement of goods differs from the change of ownership. Overall, this classification requires compilers to reconcile ownership flows with supply and use tables and ensure that national accounts capture the economic reality of FGPs in line with global value chain arrangements.

22. **There can be significant impacts to the headline figures in the BOP from FGPs, particularly when compared with IMTS data.** For example, if compilers base the goods account solely on IMTS records, then they will not capture the change in ownership of goods that do not enter or leave the economy. When the principal is resident in Economy A, the contractor in Economy B, and the final buyer in Economy C, and where the goods are shipped directly from Economy B to Economy C (as in Figure 1, case 1, above), the IMTS would record a dispatch of goods from Economy B to Economy C (indicated by the solid blue arrow). The BOP, which is based on the change of ownership principle, should record transactions between Economy B and Economy A, and between Economy A and Economy C (represented by the dashed arrows). This is most relevant in the economy of the principal. If only IMTS data are used, then goods that are purchased from the contractor by the FGP and on-sold without the goods entering the economy of the FGP, then firstly these purchase and sales will be missing from the goods account, and more importantly, the goods balance and current account balance would be understated by at least the value of IPP inputs to the production process. By extension, this would understate the economy's GDP when looked at from the expenditure approach.

23. If compilers treat FGP arrangements as merchanting on the part of the FGP (as would be understood from the *BPM6*), then again the headline goods account would be understated in the economy of the FGP, but the goods balance would be correct.

24. Uneven application of FGP among partners can lead to asymmetries in the BOP goods account. If the compilers in one economy allocates the transaction to a partner according to the change-of-ownership approach, while the partner economy uses IMTS—perhaps because its compilers are unaware of the FGP arrangement—this discrepancy will result in asymmetries in reporting.

25. Similarly, significant valuation issues may arise under FGP. Using the diagram in Figure 1, case 1, and the figures in Box 1, suppose the FGP in Economy A purchases finished goods from the contractor in Economy B for 46 units and sells them to consumers in Economy C for 100 units. These transactions should be recorded accordingly by the three parties in the BOP goods account. However, valuations in the BOP may differ from those in the IMTS. (This example ignores any ancillary costs including transport.)

26. Currently, it is not entirely clear how trade in goods under FGP are valued in the IMTS. It seems most plausible that customs officials in Economy C would value the import of goods into Economy C at their full value in the IMTS, that is, including the IPP, thus reflecting the price at which the goods enter Economy C and compete with similar products. The valuation of goods dispatched from Economy B at its frontier is less certain. The agent preparing customs documentation might value the goods based on the cost of production (46 units) or might instead assign a value closer to 100 units, reflecting the market value of similar products. These issues are set out in Table 2.

Table 2. BOP Partners and Valuation Versus IMTS Partners and Possible Valuation, Model Example

Economy	Flow	BOP partner	BOP value	IMTS partner	Possible IMTS value
A	imports	B	45	n/a	n/a
A	exports	C	100	n/a	n/a
B	exports	A	45	C	45, 100
C	imports	A	100	B	100, 45

27. In all cases, the financial statements of the companies involved should show the partner allocation and valuation required in the BOP. Company accounts and enterprise surveys provide information on sales and purchases. These accounts will show the actual amounts paid for the import or export of goods and would generally be in line with the recommended recording in the *2025 SNA /BPM7*. The partner allocation in the company accounts, where they exist, would similarly be in line with the recording of partner economy in *BPM7*. An International Transactions Reporting System (ITRS)—generally understood to be a system that obtains data from banks at the level of individual transactions—should also provide information in line with the *2025 SNA /BPM7* treatment.

BEST PRACTICES FOR REPORTING AND VISIBILITY OF FGP IN THE NATIONAL ACCOUNTS AND BALANCE OF PAYMENTS

28. Considering the challenges in understanding how production that takes place in a different economy can impact the goods account and the value added in the domestic economy, several supplementary items in the balance of payments and approaches to bring visibility in the national accounts are recommended. In the economy of the principal in a global manufacturing arrangement, it is

recommended that BOP compilers include a supplementary sub-item to General merchandise, *Goods traded within a global manufacturing arrangement*.

29. **In order to make visible trading activities under FGP, supplementary sub-items in the BOP presentation may be recorded in the economy of the principal.** A sub-item of general merchandise, “Goods traded within a global manufacturing arrangement” records transactions between the principal in global manufacturing arrangements (processing or FGP) and other parties irrespective of whether the goods pass through the economy of the principal. This would include:

- purchases of finished goods by a factoryless goods producer from the contractor;
- sales by the factoryless goods producer of finished goods to nonresidents; and
- material inputs sold to the contractor by the principal in a processing or factoryless goods production arrangement, except when sold via merchanting.

When, under FGP, the principal acquires material inputs and sells them via merchanting to the contractor (see paragraph [15]), supplementary sub-items of goods under merchanting can be recorded as follows:

- Goods acquired by the principal are recorded as negative exports under “*Material inputs acquired abroad from third parties by the principal within a global manufacturing arrangement*”; and
- Goods sold by the principal to the contractor are recorded as exports under “*Material inputs sold by the principal to the contractor abroad within a global manufacturing arrangement*”.

30. *BPM7* recommends compilers to produce and publish a reconciliation table of the differences between merchandise trade statistics and goods on a BOP basis. This table provides an opportunity for compilers to highlight adjustments to IMTS that arise from FGP. The adjustment that compilers in the economy of the principal would make are included under,

+ *Acquisition from and sale to other economies of finished goods by a factoryless goods producer without the goods passing through the economy of the factoryless goods producer.*

If final goods are sold in the economy of the contractor, then the compiler in that economy would make the adjustment,

+ *Goods sold to or purchased from a nonresident principal within a processing or factoryless goods production arrangement, without the goods leaving the reporting economy.*

In addition, compilers may need to adjust the values of goods that are dispatched from the economy of the contractor so that these are valued at the price agreed between the contractor and the principal,

± *Adjustment to the contractor's valuation of exports of finished goods to a factoryless goods producer if different from IMTS valuation of dispatches to final buyer.*

31. The national accounts require appropriate adjustments through the Supply and Use Tables (SUTs). The treatment must be consistent with the industrial classification under *ISIC Rev. 5* and the recording principles outlined in the *2025 SNA*. Unlike conventional manufacturers, FGPs generally do not import or physically handle the goods they sell; instead, they outsource production while retaining IPP control and responsibility for market risk.

32. Recognizing this, the *ISIC Rev. 5* classification ensures that the manufacturing output of FGPs is recorded in SUTs, even though the physical processing occurs abroad. On the supply side, FGPs contribute gross output in manufacturing. On the use side, exports are recorded to reflect the principal's sales abroad, with adjustments made to IMTS data to account for exports of goods that never cross the domestic border.

33. *ISIC Rev. 5* also clarifies that units outsourcing transformation without supplying IPPs or controlling production should instead be classified under wholesale and retail trade (Section G). This distinction is critical for SUT compilation, as it separates FGPs—which are manufacturers under the 2025 SNA guidelines—from pure distributors or merchants, thereby improving the accuracy of industry-level GVA estimates.

34. Given the unique challenges associated with compiling information for FGPs, some economies have utilized extended Supply and Use Tables (eSUTs). The eSUT framework enhances the standard SUTs by linking types of enterprises—such as MNEs, small and medium-sized enterprises (SMEs), or enterprises engaged in contract manufacturing abroad—with macroeconomic aggregates. This allows compilers to explicitly identify the role of FGPs in global production chains, including their reliance on intangible assets, contractual processing arrangements, or export channels. Ultimately, the use of eSUTs ensures that the contributions of FGPs—often obscured in standard trade and national accounts statistics—are more transparently reflected in GVA and exports.

35. Nevertheless, several key adjustments are required. Standard SUTs often rely on customs-based IMTS, which track physical flows of goods at the product detail required for SUTs. However, FGPs typically do not take physical possession of the goods that they sell. To address this, it is recommended that these data be reconciled through bridge tables before constructing the eSUTs. These adjustments are the exact same adjustments made in the BOP and ensure that exports in the eSUT reflect the principal's sales abroad rather than the contractor's shipments. Similarly, imports of goods by FGP's are recorded as intermediate consumption, even though they may not appear in trade statistics without proper adjustments.

36. The residual value added—after deducting intermediate consumption of materials and services—represents the return to IPP, design, and branding for the FGPs. Thus, this is explicitly allocated to the manufacturing sector not to wholesale and retail distribution (Section G). Thereby reflecting the true economic role of FGPs in domestic value added and global value chains.

SECTION 3: COMPILATION GUIDANCE

37. This section discusses key data sources important for compiling statistics on FGP and other global production arrangements. Recognizing the complexity and evolving nature of these arrangements, no single data source or compilation strategy may be sufficient on its own. Instead, compilers are encouraged to utilize a combination of approaches, including the integration of customs data, special enterprise surveys, international transactions reporting systems, and administrative records and collecting data via large case units (LCU). In addition, existing sources can also be enhanced to provide more information on global production.

38. In 2025, the IMF surveyed compilers in countries that are likely locations of FGP to understand the current statistical treatment of FGP.² The survey found that more than half of those that responded were captured cross-border flows of principals on a change of ownership basis although some captured these activities as merchanting. In some countries, this information is found using large case units. However, no countries that host contractors can fully account for the FGP transactions (including correcting for partner country attribution).

KEY DATA SOURCES

International Merchandise Trade Statistics

When compiling trade in goods on a BOP basis, compilers typically use the IMTS as a primary source. To reconcile IMTS data with BOP concepts, key adjustments are necessary. These include identifying and adding flows not captured by IMTS, such as ownership changes without physical goods movement, ensuring partner economy attributions reflect the economies involved in ownership changes rather than just consignment or origin countries in IMTS, and making valuation adjustments so that BOP values reflect the combined inputs of materials, contractor work, and intellectual property products.

Statistical Business Registers (SBR)

SBRs provide structured business data but often lack full visibility on complex global manufacturing arrangements. Scoping surveys of enterprises should identify units in the SBR where production is taking place in another resident or nonresident unit, or where contractor activities take place on behalf of another unit.

Large Case Units

LCUs represent an important new approach to engagement with MNEs for statistical purposes and are recognized as one of the main tools for addressing the challenges posed by global manufacturing and mapping MNE structures.

The LCU manages a portfolio of economically significant companies to gather data on their domestic and global activities. The LCU's analysis can bridge gaps in current statistical measurements of global operations that affect national macroeconomic data. LCUs complement SBRs by profiling MNE groups, mapping their affiliates to statistical units and analyzing their global activities to ensure data accuracy and coherence. Typically, there is a single designated contact point for managing large and complex reporting units. The primary objective of the LCU is to gather comprehensive and consistent data spanning multiple statistical domains such as production, globalization, ownership, employment, and more. To enhance data quality and cooperation, the LCU maintains regular communication and strong relationships with responding companies.

Administrative Data Sources

Data from tax records, patent databases, and other administrative records can reveal where IPP-intensive activities occur, even without physical manufacturing. These sources may help to identify enterprises acting as producers while outsourcing production.

² See *Interim Report: Task Team on Global Asymmetries*, BOPCOM, Oct 2025

Special Enterprise Surveys

Modified surveys designed to collect direct evidence from enterprises controlling production processes and bearing economic risks can gather information on

- Ownership/control of input materials;
- Role and value of IPP;
- Licensing arrangements for IPP; and
- Whether enterprises sell goods directly to foreign buyers.

This direct insight is crucial for distinguishing FGP from goods for processing and merchanting, and from traditional production models.

International Transactions Reporting System (ITRS)

The ITRS collects detailed data on individual cross-border transactions through banking systems, usually classifying transactions by BOP categories. It tends to better reflect changes in economic ownership than customs data but may suffer from misclassification and incomplete coverage of entities not using domestic banks.

Countries that use an ITRS to compile BOP and that have significant global production activities can extend the classification of transactions of the principal or contractor to identify merchanting, processing and FGP.

Classification codes should identify goods sold by the contractor under FGP; and goods purchased and sold by a principal under FGP.

COMBINING DATA SOURCES FOR COMPREHENSIVE MEASUREMENT

39. Due to the complexity and evolving nature of global production arrangements, no single source sufficiently captures all the relevant information. Instead, compilers are encouraged to integrate multiple data sources to achieve a complete and accurate picture. By triangulating and integrating these complementary sources, statistical agencies can better identify, measure, and classify the increasingly complex global manufacturing arrangements, ultimately improving the accuracy and coherence of trade, production, and macroeconomic statistics. An LCU is also a combined data source approach that uses and matches data from multiple administrative and survey sources to develop an understanding of the activities of a select number of large enterprises. Two further approaches are mentioned here that could also be combined with an LCU.

Use of Customs Data Combined with Survey Data or ITRS

Compilers with access to company-level trade data, combined with enterprise survey data or ITRS data, can identify discrepancies between reported purchases and sales to nonresidents, and IMTS imports and exports of goods. Matching IMTS data with company accounts is possibly the most effective way to identify the existence of global manufacturing arrangements.

For example, if a company reports purchases and sales of goods to nonresidents but no corresponding imports or exports in the IMTS, this may indicate that the company is a principal in a global production arrangement. Moreover, a large discrepancy between purchases and sales provides additional evidence that factoryless goods production is taking place. Conversely if a

manufacturing company reports IMTS imports and exports but does not record purchases and sales of goods in their accounts, then there is evidence of no change of ownership, and the company may be providing manufacturing services in a goods for processing arrangement.

In many countries, the compilation of the BOP is entrusted to the Central Bank, whereas the responsibility for IMTS and national accounts lies with the National Statistics Office (NSO). This division of duties can pose significant challenges in ensuring the consistency and completeness of macroeconomic statistics, particularly in the context of complex global production arrangements.

In some jurisdictions, [such as the Netherlands and Denmark], overarching legislation facilitates the exchange of confidential information between the Central Bank and the NSO for statistical purposes. Such legislation could enable BOP compilers to access detailed IMTS flows for relevant enterprises, or allow IMTS compilers to obtain relevant company information from the BOP compiler. This legal framework fosters closer collaboration and supports the identification of discrepancies or gaps in the reporting of cross-border transactions.

For countries lacking such enabling legislation, integrating data sources and reconciling differences remains possible, albeit typically within the NSO. Here, statisticians (for instance, in the LCU) can link traders identified in merchandise trade data with corresponding company accounts to pinpoint inconsistencies between amounts purchased and sold abroad (as reported in surveys or company accounts) and the imports and exports captured in IMTS. The results of this exercise (perhaps at aggregate level) done by the NSO can still inform BOP data if compiled by the Central Bank.

Ultimately, effective cooperation between all institutions involved in the compilation of macroeconomic statistics—Central Banks, NSOs, and other relevant authorities—is strongly recommended to address the intricacies and challenges presented by modern global production arrangements.

Comprehensive Use of Survey Data

A comprehensive approach to compiling data on FGP involves partial or full utilization of enterprise survey data, replacing traditional sources for trade in goods. Under this system, a survey of all traders, or a survey of all traders above some threshold is conducted to compile trade in goods on a balance of payments basis. Data for traders who are not in the selection would be sourced from IMTS or the ITRS. This approach may be especially suitable in economies which are heavily engaged in FGP arrangements. Traditional data sources, such as IMTS often fall short in capturing the full scope of FGP activities, particularly when the change of ownership occurs without corresponding physical movement. Enterprise surveys, therefore, play a significant role in bridging these gaps and ensuring that the compilers can identify, classify, and measure FGP arrangements in line with the international standards. An illustrative case of this approach can be found in China's recent experience, as presented in Box 2.

Box 2. Experience of China

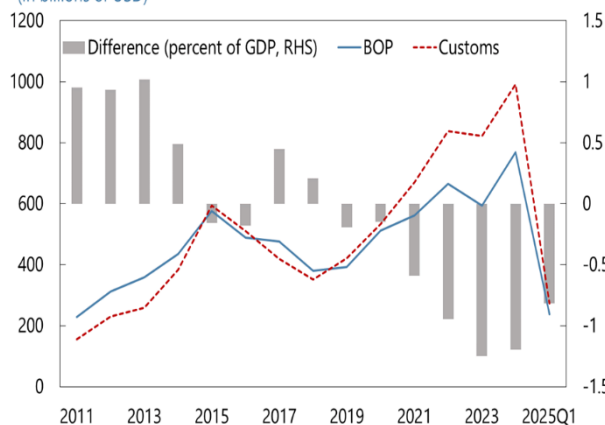
China's BOP goods trade surpluses in recent years show a widened divergence from those recorded by Customs—with the gap over one percent of GDP in 2024. Since 2019, the Customs-based trade surpluses have been persistently above the BOP-based surpluses, with the gap widening significantly in the last few years.

Exports and imports arising from factoryless manufacturing seem to have been reducing China's overall goods trade surplus in BOP. When a Chinese contractor sells produced goods to the nonresident enterprise that outsourced the production, exports of goods are recorded in BOP even if the goods remain in China (e.g., in warehouses). If the nonresident enterprise subsequently sells the goods in China, imports of goods are recorded in BOP. Given that the Chinese contractors' ex-factory price for the nonresident enterprise (China's exports) is normally lower than the nonresident enterprises' wholesale price for Chinese distributors (China's imports), these transactions result in a deficit in the goods trade balance in BOP. Customs does not record exports or imports for these transactions because the goods never cross the border. So, these transactions do not reduce the trade surplus recorded by Customs while they do in BOP.

In order to comprehensively capture exports and imports of goods that do not physically cross the border, the Chinese BOP compilers switched the data sources from Customs data to direct reporting of financial information by large enterprises in 2022. More than 13,000 large enterprises directly report goods trade data, which account for about 70 percent of the total goods trade. The compilers use cross-border receipts and payments on goods trade obtained from the International Transactions Reporting System for the rest of the enterprises. The new data sources help Chinese BOP compilers produce BOP trade data in line with the change-of-ownership principle rather than physical movements of goods, as well as based on actual transaction prices rather than declared prices at Customs.

Goods Trade Balance, Customs vs. BOP

(In billions of USD)



Sources: China General Administration Customs; SAFE; Haver Analytics; and IMF staff calculations.

Illustrative Example of Recording Factoryless Manufacturing in BOP and Customs

Ex-factory Price=60	Export	Import	Balance
Wholesale Price=100			
BOP	60	-100	-40
Customs	0	0	0

This approach has potential trade-offs if the survey data is not granular enough to meet other data needs. For example, compilers can accurately capture FGP transactions via this method but may lose some product-level detail that is demanded for other uses of IMTS data, and/or the partner country detail (although partner country could be collected on the survey).

IMPROVING EXISTING DATA SOURCES FOR COMPREHENSIVE MEASUREMENT

40. Although the IMTS does not currently include detailed information on FGP, compilers are encouraged to explore opportunities to enhance the data collected. Similarly, information from an ITRS could also be improved to provide more comprehensive FGP content.

Customs Data and Nature of Transaction (NOT) Codes

While customs information is limited for tracking global manufacturing arrangements, customs declarations can still capture some relevant data, especially for goods processed without a change of ownership. Standard customs procedures, often based on the revised Kyoto Convention, and country-specific practices enable authorities to collect key details and use specialized Nature of Transaction (NOT) codes for statistical purposes.

Customs data underpin IMTS and track physical goods movement. Country-specific NOT codes could help identify special cases:

- *Goods for processing without change of ownership*
- *Dispatch of finished goods from contractors to final buyers in factoryless goods production*

Such codes would be collected by the customs authorities at the request of the IMTS/BOP compilers of that country. These codes would support reconciliation and correct valuation from a BOP perspective of goods that cross the border.

Enhanced ITRS Codes

Countries that make extensive use of an ITRS, and where significant global production takes place, could enhance this system to collect information on goods that are purchased and sold within global production arrangements. The classification codes would include:

Principal Involved in a Processing Arrangement

Goods purchased from a nonresident economy used in production outside the state (while remaining under your ownership).

Goods sold to nonresidents that have undergone production (while remaining under your ownership) outside the state.

Principal/Contractor Under FGP

Goods sold by your enterprise to a nonresident principal enterprise that has provided the design specifications into the production of those goods.

Goods purchased by your enterprise from a nonresident contractor where your enterprise has provided the design specifications into the production of those goods.

Finished goods, where your enterprise has provided the design specifications into the production of those goods abroad,

Questions for the AEG/BOPCOM:

1. *Do AEG/BOPCOM members agree that all the features of FGPs have been outlined in the Note?*
2. *Do AEG/BOPCOM members agree with the treatment of principals that pay for the use of IPP as outlined in paragraphs 18–20?*
3. *Do AEG/BOPCOM members agree with the approaches recommended for compilers as outlined in Section 3 (from paragraph 37 onwards)?*
4. *Do AEG/BOPCOM members have any further comments, or country experiences they would be willing to provide to enrich the note?*
5. *Do AEG/BOPCOM members agree that a revised version of the Note, reflecting members' comments and suggestions, should be posted on the BPM7 and 2025 SNA websites?*

REFERENCES

Integrated Balance of Payments and International Investment Position Manual, seventh edition (BPM7) White Cover (Pre-Edited) Version. [draft-bpm7-wcv.pdf](#)

Advisory Expert Group on National Accounts (AEG), 2013, “Global Production Factoryless Goods

AEG, & BOPCOM, 2022, Guidance Note G.5, *Economic Ownership of Intellectual Property Products: Recording of Intra-MNE Transactions* [*g5-economic-ownership-of-intellectual-property-products-recording-of-intramne-transactions.pdf](#)

Producers”. <https://unstats.un.org/unsd/nationalaccount/aeg/2013/M8b-4.pdf>

[IMF/UN], Guidance Note C.4, Merchanting and Factoryless Producers; Clarifying Negative Exports in Merchanting; and Merchanting of Services, 2021, [SNA update Guidance Notes](#)

United Nations Economic Commission for Europe. (2015). *Guide to measuring global production*. New York and Geneva: United Nations.

[https://unece.org/DAM/stats/publications/2015/Guide to Measuring Global Production 2015 .pdf](https://unece.org/DAM/stats/publications/2015/Guide_to_Measuring_Global_Production_2015_.pdf)

United Nations (UN). (2023). *International Standard Industrial Classification of All Economic Activities (ISIC), Revision 5: Explanatory Notes*. New York: United Nations Statistics Division.

<https://unstats.un.org/unsd/classifications/Econ/>

OECD, & European Union. (2025). *Handbook on extended supply and use tables and extended input-output tables*. https://www.oecd.org/content/dam/oecd/en/publications/reports/2025/04/handbook-on-extended-supply-and-use-tables-and-extended-input-output-tables_d85a746f/e9fdcf85-en.pdf