

Chapter 8

FDI and Globalisation

8.1. Summary

380. The statistical indicators on foreign direct investment (FDI) that are at the core of this benchmark definition relate to transactions and positions between direct investors and their direct investment enterprises, rather than to the overall financing and operations of those enterprises. For example, the direct investment position measures the equity and debt financing provided by direct investors and excludes any such financing that may have been provided by other owners or lenders. Similarly, direct investment income includes the direct investors' shares in the earnings and the interest payments of direct investment enterprises, but it excludes the shares of others. Measures of inputs used and output produced by direct investment enterprises, such as employment and value added, fall outside the scope of FDI statistics.

381. While FDI statistics are crucial to an understanding of the direct investment relationship and allow important insights into the economic linkages between home and host economies, additional indicators are necessary to place these statistics into context and to describe the enterprises in which there is direct investment, measure their activities, and assess their economic impact. The need for such complementary indicators arises for two primary reasons. The first is the requirement for a factual foundation to underpin analyses of the globalisation of economic activity – a phenomenon that entails not only the internationalisation of consumption through trade between residents and non-residents, but also the internationalisation of production through FDI. The second is to provide statistical information that can be used in support of international agreements, such as the General Agreement on Trade in Services, which include commercial presence as a mode of supply.

382. For both of these purposes, statistics may be called upon to address a number of questions, which themselves make almost self-evident the kinds of data that are required to address them. For example:

- What is the value of inward and outward FDI relative to the size of home and host economies?
- How does the return on FDI compare to the investment positions from which the return is generated?
- What is the value of goods and services delivered – or sold – by foreign affiliates, both in their countries of location and elsewhere?
- How much of this value represents value added within the affiliates, as compared to value added by the producers that supply affiliates with intermediate inputs or goods for resale?
- What is employment by foreign affiliates, and how does it compare with employment in home and host economies, or with total employment within the multinational firms to which they belong?
- How much international trade is accounted for by foreign affiliates or by direct investors? What is the value of the goods and services that they export and import?

383. The indicators that are suggested to address such questions fall into two major categories – FDI-based indicators and indicators drawn from statistics on the activities of foreign affiliates. International recommendations for the compilation of both types of indicators are found in the *OECD Handbook on Economic Globalisation Indicators (OECD Handbook)*. Guidelines for activity-based indicators may also be found in the international *Manual on Statistics of International Trade in Services (MSITS)*, and in the Eurostat Recommendations Manual on the production of Foreign Affiliate Statistics (FATS). With regard to activity-based indicators, all of these guidebooks, in turn, draw upon the *System of National Accounts (SNA)* in identifying the firms that should be covered and defining the indicators that are to be compiled.

384. The main recommendations of this chapter are summarised below, both for FDI-based indicators of globalisation and for statistics on the Activities of Multinational Enterprises (AMNE).

385. With regard to FDI-based indicators, it is recommended that reference indicators proposed in the *OECD Handbook* be compiled. These indicators relate to i) the extent of globalisation through FDI, ii) the contribution of host and investing economies or of particular industries to globalisation through FDI, and iii) the return on FDI. Countries that are in a position to do so are encouraged to consider the compilation of some or all of the supplemental FDI-based indicators recommended by the *OECD Handbook*. These indicators relate to concentration of FDI, ii) dynamics of FDI in the reporting economy (as indicated by FDI positions relative to domestic balance sheet totals), and iii) shares of FDI by category.

386. Several recommendations are provided for AMNE statistics, as follows:

- i) AMNE statistics should cover *controlled* affiliates, as defined in the FDIR. However, countries that are able to do so may wish to provide supplemental statistics covering cases in which foreign control may be deemed to be present, even though no single foreign direct investor holds a majority stake.
- ii) For statistics on foreign-owned affiliates in the compiling economy (inward AMNE statistics), the first priority for geographical attribution should be the country of ultimate investor. However, to facilitate linkages with FDI data, countries are encouraged also to provide some data in which attribution is based on the country of the immediate investor (first foreign parent). Statistics for foreign affiliates of the compiling economy (outward AMNE statistics) should be attributed based on the country of location of the affiliate whose operations are being described.
- iii) Because it is the basis required for some variables as well as the basis on which data probably are, at present, most widely available, an activity basis is recommended as the initial priority for AMNE statistics. However, the provision of data on a product basis is recognised as a longer-term goal, and countries are encouraged to work toward providing product detail for those variables that lend themselves to this basis of attribution (namely, sales [turnover] and/or output, exports, and imports).
- iv) For reporting to international organisations, AMNE variables should be disaggregated according to the ISIC.
- v) It is recommended that the AMNE variables to be collected include at least the following basic measures of foreign affiliate activity: i) sales (turnover) and/or output, ii) employment, iii) value added, iv) exports and imports of goods and services, and v) number of enterprises. Additional measures are suggested for countries wishing to expand AMNE data collection beyond this basic set.

387. A variety of sources and methods may be used to collect and compile AMNE statistics. Separate surveys may be conducted or links may be made with domestic enterprise statistics that are already collected. In either case, there are likely to be links with existing data on foreign direct investment.

388. The *Benchmark Definition* draws from these existing guidelines, in suggesting basic data and methodology that may be used in creating both FDI-based indicators and indicators relating to the activities of foreign affiliates. Following the *OECD Handbook*, the latter indicators, which may be supplemented by comparable data on the direct investors that own them, will be referred to as statistics on the activities of multinational enterprises (AMNE statistics).⁴⁷

389. The discussion that follows is in six sections. The first identifies a number of FDI-based indicators of globalisation. The second explores the intersection between FDI statistics and AMNE statistics. The third discusses the coverage of AMNE statistics in terms of ownership criteria and the selection of statistical units. The fourth considers the attribution, or classification, of AMNE variables, both geographically and by activity or by product. The fifth identifies and defines economic variables for AMNE statistics. The sixth section provides a brief discussion of compilation issues for AMNE statistics.⁴⁸

8.2. FDI statistics as indicators of globalisation

390. FDI-based indicators are among the most widely available and commonly used measures of globalisation. They measure the extent of cross-border investments made with the objective of achieving a lasting interest in a business enterprise located in an economy different than that of the investor. They also allow cross-country comparisons based on the importance of FDI measures relative to host-country economies, as measured by their gross domestic product (GDP). Although the FDI measures – such as financial flows, investment positions, and income flows – are not components of GDP, forming ratios of such measures to GDP provides normalized measures that can be compared across countries.

391. The *OECD Handbook* proposes the construction of a number of “reference” indicators of globalisation related to FDI. Reference indicators are the indicators expected to be most commonly used, and are necessary for the analysis of economic globalisation in all or parts of the world economy. The data needed to construct them are generally available in OECD member countries, which are encouraged to produce these indicators as a first priority. The *OECD Handbook* also suggests a number of lower-priority, or “supplemental”, FDI-based indicators. The reference indicators are reproduced below in Box 8.1, grouped according to whether they relate to i) the extent of globalisation through FDI, ii) the contribution of host and investing (home) economies or of economic sectors to globalisation through FDI, or iii) the return on FDI.

392. The supplemental indicators (also shown in Box 8.1) suggested in the *OECD Handbook* relate to i) concentration of FDI (for total FDI or by industry or by geographical distribution), ii) dynamics of FDI in the reporting economy (as indicated by FDI positions relative to domestic balance sheet totals), and iii) shares of FDI by category (components of FDI financial flows and positions relative to their respective totals).

47. A variety of other terms also have been used to describe these data, including “foreign affiliates’ trade statistics”, “foreign affiliates’ statistics”, “establishment trade” and “financial and operating data” of multinational enterprises.

48. Compilation issues for FDI statistics are discussed elsewhere in previous chapters.

Box 8.1. Indicators of globalisation related to FDI

Reference indicators:

i) Extent of globalisation through FDI (total FDI or by industry).

1. Inward FDI financial flows as a percentage of GDP.
2. Outward FDI financial flows as a percentage of GDP.
3. Inward FDI income flows as a percentage of GDP.
4. Outward FDI income flows as a percentage of GDP.
5. Inward FDI positions as a percentage of GDP.
6. Outward FDI positions as a percentage of GDP.

ii) Contribution of host and investing economies or of industries to globalisation through FDI

1. Relative share of inward FDI financial flows by partner country as a percentage of total inward FDI flows.
2. Relative share of outward FDI financial flows by partner country as a percentage of total outward FDI flows.
3. Relative share of inward FDI positions by partner country as a percentage of total inward FDI positions.
4. Relative share of outward FDI positions by partner country as a percentage of total outward FDI positions.
5. Relative share of inward FDI financial flows by industry as a percentage of total inward FDI flows.
6. Relative share of outward FDI financial flows by industry as a percentage of total outward FDI flows.
7. Relative share of inward FDI positions by industry as a percentage of total inward FDI position.
8. Relative share of outward FDI positions by industry as a percentage of total outward FDI position.

iii) Return on FDI

1. Inward FDI equity income debits [debits for a) dividends/distributed branch profits, plus b) reinvested earnings/undistributed branch profits] as a percentage of inward FDI position [rate of return for total inward FDI or by industry or investing country].
2. Outward FDI equity income credits [credits for a) dividends/distributed branch profits, plus b) reinvested earnings/undistributed branch profits] as a percentage of outward FDI position [rate of return for total outward FDI or by industry or investing country].

Supplemental indicators

iv) Degree of concentration of FDI (for total FDI or by economic sector or by geographical distribution)

1. Herfindhal index of inward FDI financial flows.
2. Herfindhal index of outward FDI financial flows.
3. Herfindhal index of inward FDI positions.
4. Herfindhal index of outward FDI positions.

v) Dynamics of FDI in reporting economy

1. Inward FDI positions as a % of total liabilities of the domestic economy (balance sheet totals).
2. Outward FDI positions as a % of total assets of the domestic economy (balance sheet totals).
3. Share of FDI by category [by i) partner country and ii) economic sector].
4. Inward equity capital flows as a % of inward FDI flows.
5. Inward reinvested earnings as a % of inward FDI flows.

Box 8.1. Indicators of globalisation related to FDI (cont.)

6. Inward other capital flows as a % of inward FDI flows.
7. Outward equity capital flows as a % of outward FDI flows.
8. Outward reinvested earnings as a % of outward FDI flows.
9. Outward other capital flows as a % of outward FDI flows.
10. Inward position of equity capital and reinvested earnings as a % of FDI positions.
11. Inward other capital positions as a % of inward FDI positions.
12. Outward positions of equity capital and reinvested earnings as a % of FDI positions.
13. Outward other capital positions as a % of outward FDI positions.

vi) Share of FDI by type

1. Inward M&A equity flows as a % of total inward FDI equity flows.
2. Outward M&A equity flows as a % of total outward FDI equity flows.

393. The above indicators are suggestive of the ways in which FDI data can cast light upon globalisation phenomena, but they do not constitute an exhaustive list. For particular purposes it might be useful, for example, to identify separately those flows that occur as a result of cross-border mergers and acquisitions (M&As). This would serve to distinguish between FDI in which ownership of existing enterprises is transferred and FDI in which new enterprises are established by direct investors – often termed “greenfield” investments – or in which existing direct investment enterprises are expanded. This distinction would allow insights to be gained into, not only the *amount* of FDI, but also into its likely economic effects.⁴⁹ Other breakdowns might be created to segregate FDI flows involving Special Purpose Entities (SPEs) from other FDI flows. These breakdowns could, for example, provide additional insights into which flows have the greatest potential to result in changes in production in the host economies to which the flows are attributed, and which flows would be likely to have a greater impact on production in other countries.

8.3. Intersection between FDI and Activities of Multinational Enterprises (AMNE) statistics

394. Before discussing AMNE statistics as a second data set that can be used to assess and analyze the extent and effects of globalisation, it will be helpful to consider how these statistics and statistics on FDI relate to one another. The intersection between FDI and AMNE statistics can be explored by constructing a balance sheet for a hypothetical direct investment enterprise in which assets, liabilities, and owners' equity are broken down on the basis of whether or not they represent positions of, or with, the direct investor(s).

49. It is sometimes presumed that – other things being equal – expansions and greenfield investments have a greater economic impact on the real capital stock in host countries than M&As, but this is not invariably the case. M&As usually provide financial resources to former owners, which they may invest in ways that contribute to domestic capital formation.

Table 8.1. **Foreign affiliate balance sheet**

Assets:	Liabilities:
A1. Equity claims on direct investor (reverse investment)	L1. Debt owed to direct investor
A2. Debt claims on direct investor	L2. Other liabilities
A3. Other assets	
	Owners' equity:
	O1. Equity claims of direct investor
	O2. Equity claims of other owners

395. Given the accounting identity which states that assets equal liabilities plus owners' equity, it is the case that:

$$(1) A1 + A2 + A3 = L1 + L2 + O1 + O2$$

396. These terms can be rearranged as follows, so that the left hand side of the equation shows the direct investment position:

$$(2) L1 + O1 - A1 - A2 = A3 - L2 - O2$$

397. That is, the direct investment position – the equity and debt claims of the direct investor on the direct investment enterprise less the equity and debt claims of the direct investment enterprise on the direct investor – equals the assets of the enterprise not representing claims on the direct investor, less equity and debt claims on the enterprise by entities other than the direct investor. Put another way, the direct investment position can be viewed as financing the portion of the “other” assets of the enterprise (A3) that is not financed by other investors and lenders. Included among these “other” assets would be tangible assets, such as plant, equipment, and inventories; intangible assets, such as patents and copyrights; and financial claims – both equity and debt – on entities other than the direct investor.

8.4. Coverage of AMNE statistics

398. Before considering the particular measures that should constitute the AMNE data set, it is necessary to consider which firms that should be covered by these statistics as well as recommendations regarding statistical units.

8.4.1. Ownership criteria

399. Although 10% ownership of the voting power is recommended as the lower threshold for FDI, the *Benchmark Definition* follows the *OECD Handbook* in recommending that AMNE statistics should be compiled, as a first priority, for the controlled subset of foreign affiliates, as control is defined by the FDIR. Majority ownership is already used as the basis for AMNE statistics in key countries that maintain this type of data, and is an operationally practical criterion for the selection of firms that are to be regarded – following a concept found in the *SNA* – as “foreign-controlled enterprises”. The Eurostat Recommendations Manual on the production of FATS foresees the compilation of FATS/AMNE statistics on controlled foreign affiliates. However, majority ownership has been used as a proxy in the joint OECD-Eurostat questionnaire on foreign-affiliate operations used for data collection. Also, statistics based on control appear relevant to the needs of the General Agreement on Trade in Services (though it should be noted that the agreement does not contain statistical definitions).

400. Although it may in some respects have been conceptually more appealing to categorise firms on the basis of the actual presence or absence of foreign control in an operational sense, control as defined by the Framework for Direct Investment Relationships (FDIR)⁵⁰ has been selected as the recommended ownership criterion for AMNE statistics. Unlike *de facto* control, its implementation does not require the use of subjective criteria, nor does it require that compilers examine the nature of investments on a case-by-case basis. The absence of a subjective factor has the added benefit of eliminating a potential source of bilateral asymmetry – namely, the possibility that the issue of control will be assessed differently by home and host country compilers.

401. While the measure of control recommended by this manual differs from the SNA concept of foreign-controlled enterprise, the two concepts are alike in that both refer to ownership by a single investor (or investor group). This approach is followed not only for consistency with other international guidelines, but also because it is only through a single investor or associated investor group that control can be systematically exercised. However, the relevance of other criteria for selection is acknowledged, and countries that can do so may wish to provide supplemental statistics covering cases in which foreign control may be deemed to be present, even though no single foreign direct investor holds a majority stake.

402. Examples of investments that might be covered on a supplemental basis are majority ownership by multiple unaffiliated foreign direct investors, ownership of exactly 50% by a foreign direct investor, and cases in which a qualitative assessment has been made that effective control has been achieved through a minority stake in an enterprise.⁵¹ Such supplemental statistics may be particularly relevant where majority ownership by non-resident investors is restricted.

403. Statistics on foreign affiliates owned by residents of the compiling economy should include all controlled foreign affiliates, irrespective of whether the affiliate is held directly or indirectly and irrespective of whether the direct investor in the compiling economy is the ultimate investor or is, instead, an intermediate investor in an ownership chain. However, because the activities of an affiliate held through an ownership chain could be recorded in the outward AMNE statistics of the countries of both the ultimate and intermediate investors, it may be useful to indicate the aggregate share of AMNE variables accounted for by enterprises for which the compiling country is an intermediate rather than final owner. For FDI data, investments in given affiliates may be reflected in the statistics of both immediate and ultimate owners, but due to the difficulties of tracing financial flows beyond their immediate sources and uses, such supplemental information would be more difficult to compile and interpret than in the case of AMNE data.

8.4.2. Statistical units

404. In principle, AMNE statistics could be collected at either the enterprise (company) level or the level of individual business locations or establishments. Neither basis of collection is unequivocally superior to the other; rather, each has its own strengths and weaknesses. For example, some financial indicators, such as total assets, are more naturally collected from enterprises than from establishments. In addition, because FDI statistics usually are

50. OECD *Handbook* refers to the Fully Consolidated System which was the recommended by the *Benchmark Definition*, 3rd edition.

51. These and other special cases are discussed in the *OECD Handbook*.

collected at the enterprise level, collection of AMNE statistics at this same level facilitates linkages between the two types of data. However, because enterprises are more likely than establishments to have activities in multiple industries, data that are classified on the basis of primary activity can be more difficult to interpret for enterprises than for establishments. Although there may thus be advantages and disadvantages associated with each basis of collection, there is no recommendation concerning the statistical unit to be used. AMNE statistics often will be developed in the context of existing statistical systems, in which the statistical units are already defined, and in these cases there may be little choice in the units that are to be used.

405. Because the statistical units used can have an important bearing on how the statistics should be interpreted, both for AMNE in isolation and in comparisons with FDI statistics, it is recommended that information on the statistical units used in collecting AMNE statistics be disclosed in explanatory notes.

8.5. Attribution of AMNE variables

406. AMNE variables may be attributed, or classified, in a variety of ways. One way is geographic – that is, in what country did the production take place, and what country is to be regarded as the country of the owner of the producing affiliate? Another way is on the basis of the primary industrial activity of the producer. Some variables may, in addition, be classified by product, that is, according to the types of goods or services produced. Recommendations on each of these bases of attribution are provided in the sections that follow.

8.5.1. Attribution by country

407. The issues to be addressed in attributing variables by country differ as between inward and outward AMNE statistics. For inward statistics, a choice must be made between attribution to the immediate investing country and attribution to the ultimate investing country. For outward statistics, the issue is whether to attribute variables to the immediate host country or to the ultimate host country.

408. The need to follow investments to their ultimate origins or destinations reflects both the nature and the uses of the statistics. These issues are discussed below with respect to each type of investment, and recommended bases of attribution are given.

8.5.1.1. Inward AMNE statistics

409. For foreign-owned affiliates in the compiling economy, the question is whether to attribute AMNE variables to the country of the immediate investor (first foreign parent) or to that of the ultimate investor. Often, the first foreign parent and the ultimate investor are one and the same, but in many cases they differ.

410. Abstracting from practical considerations, the country of the ultimate investor is conceptually preferable for attribution of variables concerning industrial activity because that is the country that ultimately owns or controls, and therefore derives the benefits from owning or controlling the direct investment enterprise. In light of the relevance of the ultimate-investor basis and the demonstration by a number of countries that compilation on this basis is feasible, the ultimate-investor basis is recommended as the first priority for compilation of AMNE statistics and the basis on which estimates should be prepared in the greatest detail. However, considering that information on immediate investors may be

available as a by-product of linkages to FDI data, and to facilitate comparisons with these data, countries are encouraged to make available some data classified according to the country of the first foreign parent.

8.5.1.2. Outward AMNE statistics

411. For affiliates owned by residents of the compiling economy, two options for the geographic attribution of AMNE variables are possible. The variables could be attributed to the country of location of the affiliate or, if the ownership is through a directly held affiliate located in another country, to the country of that affiliate. International guidelines recommend that attribution of AMNE statistics be to the country of the affiliate whose operations are described by the variables, for that is the country in which the foreign direct investor's commercial presence exists, and it is the country where the various activities – sales, employment, and so forth – tracked by the statistics are carried out. This basis of attribution is recommended in the *OECD Handbook*. In addition, it is consistent with the treatment of foreign-controlled enterprises in the SNA, in that the value added in production by the enterprise is attributed in both cases to (i.e. is included in the gross domestic product of) the economy of location of the enterprise. To the extent that the statistics may be used in conjunction with FDI statistics, it should be reiterated that the latter are to be attributed to the immediate host country, as is appropriate for tracking financial flows and positions.

8.5.1.3. Note on the equal ownership of shares by residents of more than one country

412. Ordinarily, AMNE variables for a given foreign affiliate should be attributed in their entirety to a single country of owner. As descriptors of the operations of affiliates, they are not to be factored down by ownership shares. Nor are the values of the variables to be apportioned between the majority owner and any foreign minority owners. However, where supplemental statistics are provided covering cases in which foreign control has been achieved other than through majority ownership by a single investor, classification dilemmas may arise where direct investors of different countries have collectively achieved majority ownership through holdings of equal shares. Because the ownership is evenly split, the determination of the country of owner has to be made using criteria other than ownership percentages.

413. Although it is sometimes difficult to reach a decision in such cases, there is often some factor that would suggest the selection of one country rather than the other. For example, if one owner's interest in the affiliate is held directly and the other owner's interest is held indirectly, the affiliate generally would be classified in the country of the owner holding the direct interest. As another example, if one of the foreign owners is a government entity, then the country of that government most likely would be considered the country of owner. Finally, if one of the foreign owners is a holding company or is located or incorporated in a tax haven country, then the country of the other owner would most likely be considered the country of owner. In the absence of any such factor that could be used as a basis of attribution, the value of AMNE variables may be allocated evenly among the foreign countries of ownership. However, data so allocated may pose problems of interpretation, and efforts should first be made to determine a basis for allocation to a single country.

8.5.2. Attribution by activity and by product

414. Ideally, it would be possible to attribute all AMNE variables on the basis of the industrial activities of producers and, in addition, particular variables such as sales or output, exports, and imports by the types of services products produced and sold. Data on a product basis would identify the specific types of goods and services delivered through the commercial presence mode of supply and could most readily be compared with data on goods and services delivered through trade between residents and non-residents. However, some variables, such as value added and employment (discussed below), do not lend themselves to a product classification. Also, for some countries, AMNE statistics may be developed as a subset of domestic enterprise or other statistics that are classified only on an activity basis. On this basis, all of the data for a given enterprise are classified in the single activity – often termed the “primary” activity – that, based on some key variable (such as employment or sales), is the largest. Finally, for some purposes, the data may need to be viewed in conjunction with data on stocks and flows of FDI, which normally would be classified by activity but not by product.

415. Taking these factors into account, an activity basis is recommended as the first priority for AMNE statistics. However, as a longer-term goal, countries are encouraged to work toward providing product detail for the items that can be classified on this basis. Countries that are building on existing data systems that already include product detail likely will wish to use this detail from the outset in their tabulation and presentation of AMNE statistics. Similarly, countries that are building their AMNE data systems from the ground up should consider the feasibility of providing for a product dimension.

8.5.2.1. Activity

416. For reporting to international organisations, it is recommended that AMNE variables be classified by activity according to the United Nations *International Standard Industrial Classification of All Economic Activities (ISIC)* – or the NACE equivalent

417. Primarily because the activities carried out by a given firm are often not limited to its activity of classification, the data recorded against any given activity must be interpreted as an indication of total activity of firms for which the given activity is the most important, or primary, activity, rather than as a precise measure of the activity itself.⁵²

418. It is noteworthy that, even though FDI and AMNE statistics may be classified according to the ISIC, only the latter statistics will uniformly reflect the industries in which direct investment enterprises are producing goods and services. As noted earlier, FDI statistics are attributed to the industries of the enterprises with which direct investors have direct transactions and positions (and, if possible, also on the basis of the industries of the direct investors). Statistics tabulated on this basis show the types of enterprises with which direct investors have financial claims and liabilities. The industries associated with the activities of indirectly held direct investment enterprises will not be reflected in these statistics, but they will be reflected in AMNE statistics. Thus, the industrial classification of

52. For example, computer services may be provided not only by firms classified in the computer services industry, but also by firms classified in computer manufacturing and computer wholesale trading. Similarly (though in reality less commonly), computer services firms may engage in manufacturing or wholesale trade as secondary activities. Statistics shown for the activity “computer services” would misstate the value of the activity by excluding the computer services provided by manufacturers and wholesale traders and by including the manufacturing and wholesale trade activities of computer services firms.

AMNE statistics may give a truer picture of the economic nature of the productive activities of foreign affiliates than does that of FDI statistics.

8.5.2.2. Product

419. As a longer-term goal, countries are encouraged to work toward disaggregating by product some or all of the variables – which include sales (turnover), output, exports, and imports – that lend themselves to this basis of attribution. Product-based statistics are free of problems of interpretation related to secondary activities and are consistent with the basis of classification used for trade between residents and non-residents.

8.6. Economic variables for AMNE statistics

420. A wide range of economic data or variables – operational and financial – in regard to AMNE statistics may be pertinent for analytical and policy purposes. The selection of the variables to be collected should be based primarily on their usefulness in addressing questions, such as those posed at the beginning of this chapter, pertaining to the production, employment, and international trade of direct investment enterprises. The practicalities of data availability also must be considered. With such considerations in mind, and in the interests of harmonization with other international guidelines, the recommended AMNE variables to be collected include at least the following basic measures of foreign affiliate activity: i) sales (turnover) and/or output, ii) employment, iii) value added, iv) exports and imports of goods and services, and v) number of enterprises. Although these variables constitute a basic set that can be used in answering a variety of questions, additional measures of foreign affiliate activities may prove useful in addressing specific issues.

8.6.1. Sales (turnover) and/or output

421. *Sales* and *turnover* are used here interchangeably to mean the same thing. Following the SNA (which may be consulted for additional details and examples), output differs from sales because it includes changes in stocks of finished goods and work in progress and because of differences in measurement applicable to activities involving trade or financial intermediation. Output is a superior and more refined measure of activity for most purposes and is recommended as the preferred variable for compilation. However, sales data are easier to collect and may present more options for disaggregation. Thus, there may be a continuing role in AMNE statistics for both measures.

422. For certain services activities, special conventions are used for measuring output. Services activities do not involve stocks of finished goods, and changes in work-in-progress will usually be impossible to measure. In practice, therefore, measured output will be identical to sales for most service activities. For wholesale and retail distribution, although the sales are of goods, the output is defined as a service, equal not to the total value of sales but to the trade margins realised on goods purchased for resale. For financial intermediaries, output includes not only services that are charged for by explicit fees, but also margins on buying and selling transactions, asset management costs deducted from property income receivable in the case of asset-holding entities, and margins between interest payable and the reference rate on loans (called financial intermediation service charges indirectly measured, often abbreviated as FISIM). For insurance, output is measured not by total premiums earned, but by a service charge that takes into account the income earned on technical reserves and also the fact that a portion of premiums must

be devoted, not to the provision of services, but to the payment of claims and to the accumulation of capital sums guaranteed under life insurance policies, annuity plans, and pension entitlement schemes. In all these cases, output will generally be considerably lower than sales because it, unlike sales, excludes the amounts – which may constitute a large portion of total operating revenues – that pass through the enterprise without being considered a part of its intermediate consumption.

423. *Sales* measures gross operating revenues less rebates, discounts, and returns. *Sales* should be measured exclusive of consumption and sales taxes on consumers, and value-added taxes. Although lacking the duplication-free quality of value added, the sales variable generally presents fewer collection difficulties and thus is likely to be more widely available than value added. Also unlike value added, “sales” indicates the extent to which foreign affiliates are used to deliver outputs to customers, irrespective of the extent to which the output originated in the affiliates themselves or in other firms. Further, sales are more comparable than value added with regard to variables such as exports and imports, which themselves mainly arise from sales.

424. In addition to disaggregation by industry and by country (following the principles of attribution discussed earlier), other breakdowns of sales may be useful for particular purposes. One such breakdown is to distinguish among sales within the host country (local sales), sales to the country of the parent enterprise (i.e., the immediate investor), and sales to third countries.⁵³ All three types of sales result from a commercial presence by the home country in the host country. However, only the local sales represent the delivery of output within host economies. In any analysis of AMNE variables in conjunction with data on the parent country’s trade with non-residents, it should be noted that the foreign affiliates’ sales to the parent country would appear in both data sets, which may suggest the usefulness of an adjustment to eliminate the duplication, or a memorandum item to identify it.

425. Among other sales breakdowns that may prove useful would be a breakdown of sales within each industry as between sales of goods and sales of services, which would represent a first step toward a product breakdown of sales. As a longer-term goal, countries are encouraged to work toward developing product detail on sales.

8.6.2. Employment

426. In an AMNE context, *employment* would normally be measured as the number of persons on the payrolls of foreign affiliates. Employment data are sometimes converted to a “full-time equivalent” (FTE) basis, in which part-time workers are counted according to the time worked (e.g. two workers on half-time schedules count the same as one full-time worker). Although FTE employment may provide a better measure of labour input, this measure is not as widely available as numbers of employees and may be difficult to implement consistently in the context of internationally varied employment practices. For these reasons, it is recommended that the employment variable be the number of persons employed. The number should be representative of the period covered, but in the absence

53. In some cases, it might be possible to derive a close proxy for this breakdown by examining data on total sales in conjunction with data on exports. Export data may indicate sales to the country of the parent separately from sales to third countries, and local sales may be derived by subtracting these export sales from total sales.

of strong seasonal or other fluctuations in employment, it may be measured as of a point in time, such as the end of the year, following national practices.

427. Data on employment by affiliates can be used in several ways. They can be used in determining the share of foreign affiliates in host country employment, or in attempts to determine the extent to which employment by foreign affiliates complements or substitutes for domestic (home country) employment by parent companies⁵⁴ or other domestic firms. An industry breakdown of affiliates' employment can yield further insights into the impact of foreign-owned enterprises on specific parts of the economy. Used in conjunction with data on compensation of employees – one of the “additional” variables suggested below – the employment variable may be used in examining compensation practices of affiliates relative to those of domestically owned firms.

8.6.3. Value added

428. The SNA defines “the gross value added of an establishment, enterprise, industry, or sector” as “the amount by which the value of the outputs produced... exceeds the value of the intermediate inputs consumed”. A related concept, “net value added”, is defined as gross value added less the consumption of fixed capital. Gross value added can provide information about the contribution of foreign affiliates to host country gross domestic product, both in the aggregate and in specific industries. For this reason, and because it may often be easier to compute (because it does not require estimation of capital consumption) and is thus more widely available, the higher priority should be accorded to the gross measure of value added.

429. Although it is defined in terms of outputs and intermediate inputs, value added also is equal to the sum of primary incomes generated in production (compensation of employees, profits, etc.). In some cases, depending on the particular data that are available, this equivalence may be exploited in deriving estimates of value added. This alternative might be chosen, for example, if data on intermediate consumption were lacking but information on the various incomes generated in production were available.

430. Because it includes only the portion of the firm's output that originates within the firm itself, value added is a particularly useful measure. It is for this reason that it has been included among the “basic” AMNE variables, even though, as a measure that may have to be estimated or derived from other variables, it may be among the more difficult variables to compile. For inward AMNE statistics, value added will often be available from regular industrial or enterprise surveys, but for outward statistics it may have to be derived from other variables or collected in separate surveys.

8.6.4. Exports and imports of goods and services

431. International goods and services transactions of foreign affiliates are another basic indicator of activity. Both balance of payments data and data provided by parent

54. OECD *Handbook* includes the following definitions for “parent” or “parent companies”: The general definition of a parent is a firm directly controlling another firm. For inward investment: “the parent company of a foreign company in a compiling country is the first foreign investor outside the borders of the country exercising direct or indirect control over the foreign affiliate.” For outward investment: “from the point of view of a compiling country, the parent company of an affiliate controlled by residents of this country and located abroad is the consolidated enterprise (enterprise group) comprising the domestic ultimate beneficiary owner controlling the firm investing abroad and the domestic firms which the preceding firm controls directly or indirectly”.

enterprises and affiliates in separate questionnaires may be appropriate sources for such information. To a large extent, the possibilities for disaggregating total exports and total imports may depend on the sources used to obtain the data.

432. Where the data are obtained through linkages with primary data sources for balance of payments transactions, breakdowns by product and by origin or destination will often be possible. In this event, exports and imports might be disaggregated, not only by the primary activity of the affiliate according to ISIC, but also by product.

433. Although linkages with balance of payments data may thus provide useful information, it often will be difficult or impossible to isolate the transactions of foreign-owned firms in these data. Thus, it may be possible to develop the data on exports and imports only through the use of separate questionnaires. In this event, these same breakdowns would be useful, but it is unlikely that a large number of countries would be able to collect the necessary data with the same frequency or in the same detail as provided by balance of payments data. However, it may be possible to disaggregate exports and imports into a few broad categories in which trade with related enterprises would be distinguished from trade with unrelated parties. In addition, trade with the country of the parent enterprise could be distinguished from trade with other countries. If possible, these breakdowns should be obtained separately for goods and services. For inward AMNE statistics, for example, this would mean disaggregating the affiliate's exports of goods and exports of services into i) exports to the parent enterprise, ii) other exports to the country of the parent, and iii) exports to third countries. Imports would be similarly disaggregated.

8.6.5. Number of enterprises

434. The number of enterprises (or establishments, where that is the statistical unit) meeting the criteria for coverage by AMNE statistics is a basic indicator of the prevalence of majority ownership by foreigners in the host economy. This number may be compared with the total number of firms (or establishments) in the economy. It may also be assessed in relation to the other AMNE variables because it allows the computation of ratios – such as value added or number of employees per enterprise – that may be compared with the same ratios for domestically owned firms, thus giving an indication of the behaviour of foreign affiliates.

435. It should be recognised that the number of firms alone may not give an accurate picture of the overall importance of foreign-owned firms, because of differences in size between these firms and those that are domestically owned. If the foreign-owned firms tend to be larger, for example, then their share in the total number of firms would be smaller than their share in the various measures of operations and would thus tend to understate their role and importance in host country economies.

436. Typically, information on numbers of enterprises will be a natural by-product of collection of data on other AMNE variables, rather than a separate object of the data collection effort. As such, the number is likely to be affected, often significantly, by the level of company consolidation and by thresholds for reporting on surveys. To assist users in interpreting counts of enterprises (or establishments), countries are encouraged to indicate in explanatory notes how the numbers were derived.

8.6.6. Other variables

437. Although not included as priority items, there are other AMNE variables of significance, perhaps for certain countries of equal or greater importance than some of those previously discussed. As is the case for the priority items, comparisons with the total economy and with specific sectors can be made and used for assessing the impact of foreign-controlled enterprises on home and host economies.

438. Among such variables, which are listed and defined below, are those already collected by some countries. (The definitions are drawn from the SNA , which may be consulted for additional details).

- *Assets* – Entities over which ownership rights are enforced and from which economic benefits may be derived by their owners by holding or using them. These include both financial assets and non-financial assets, whether produced or non-produced.
- *Compensation of employees* – The total remuneration, in cash or in kind, payable by an enterprise to an employee in return for work done by the employee during the accounting period.
- *Net worth* – The difference between the value of all assets – produced, non-produced, and financial – and all liabilities.
- *Net operating surplus* – Measured as value added (gross), less compensation of employees, consumption of fixed capital, and taxes on production, plus subsidies receivable.
- *Gross fixed capital formation* – Measured by the total value of a producer's acquisitions, less disposals, of fixed assets during the accounting period plus certain additions to the value of non-produced assets realised by productive activity. (Fixed assets are defined as produced assets that are themselves used repeatedly, or continuously, in processes of production for more than one year).
- *Taxes on income* – These consist of corporate income taxes, corporate profit taxes, corporate surtaxes, and so forth, and taxes that accrue to owners of unincorporated enterprises as a result of the income of those enterprises. Taxes on income include only taxes in the host country of the affiliate and not any taxes paid by the parent in the home country as a result of income earned or distributed by the affiliate. Taxes on income are usually assessed on the total income of corporations from all sources and not simply profits generated by production.
- *Research and development expenditures* – Expenditures for activities undertaken for the purpose of discovering or developing new products (goods and services), including improved versions or qualities of existing products, or discovering or developing new or more efficient processes of production.

8.7. Compilation issues for AMNE statistics

439. There are two basic approaches, which are not necessarily mutually exclusive, to developing AMNE statistics. The first is to conduct surveys that directly request information on the operations of resident affiliates of foreign firms and foreign affiliates of domestic firms. The second identifies the subset of existing enterprise data that is accounted for by foreign-owned firms.

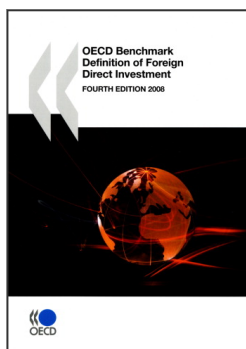
440. Whichever of these approaches is taken, there are likely to be links to existing data on FDI. Where there are surveys for AMNE statistics, registers used in collecting FDI data typically would be used to identify majority-owned affiliates for which variables should be collected. Alternatively, key AMNE variables might be added to existing FDI surveys. However, because FDI surveys may be conducted more frequently than AMNE statistics are compiled (*e.g.* quarterly rather than annually) and require a quick turnaround, as well as because AMNE statistics are needed for only the majority-owned portion of the FDI universe, separate surveys probably would offer a better solution in most cases. Where existing domestic statistics are used as the source of information, links to FDI data will often provide the means of determining which resident enterprises are majority-owned and should be included, as well as the means of identifying the country of owner. Under this approach, AMNE statistics would be obtained as an aggregation of statistical variables across the foreign-owned statistical population.

441. Each approach has its own advantages and drawbacks, and it is possible to outline some of the intrinsic differences. However, the criteria for deciding whether an enterprise is foreign-owned would be the same in both cases.

442. The FDI framework, whether implemented through adding questions to existing surveys or through institution of new surveys covering the majority owned subset of the FDI population, allows for the compilation of outward as well as inward statistics and provides more options for tailoring the data to specific needs. However, the activity classification used in FDI statistics is generally rather aggregated, and it seems difficult to go beyond basic statistical variables such as turnover and employment without designing completely new surveys, which might raise concerns about resource availability and respondent burden. Also, if this approach is taken, special care will be necessary to ensure compatibility with domestic statistics with which the AMNE statistics may be compared.

443. The picture of AMNE statistics as a subset of enterprise statistics is quite different. The activity classification used may be quite detailed, and product detail may be available for sales or turnover. In addition, a comprehensive set of statistical variables generally can be provided. It is generally easier to provide this information for statistics on inward investment than for statistics on outward investment.

444. In many cases, a mix of the two approaches may work best, with separate surveys being used for the compilation of outward AMNE statistics and for the identification of foreign-owned companies, and the “enterprise statistics” context being used for the compilation of inward AMNE statistics with a more detailed activity breakdown and a more comprehensive set of variables. An extended business register might be a suitable means of maintaining such information. This approach has already been adopted in some countries that use them to maintain data on foreign ownership. The recommendations are based on both approaches, recognising the advantages and disadvantages of each and the need for countries to have flexibility in adapting the recommendations to their individual statistical infrastructures and maximising the use of existing data.



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