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For discussion

Negative Equity in Direct Investment Statistics

Negative Equity in Direct Investment Statistics¹

The macroeconomic statistics manuals do not offer guidance on the treatment of negative equity in direct investment statistics. Negative equity raises several questions, including how to interpret such data, how countries should treat it, whether it is consistent with the valuation of listed equity, and whether negative equity, if common, could lead to a misstatement of a country's net international investment position. This note explores reasons why negative equity occurs in direct investment, such as legal status of the direct investment enterprise, the financing decisions of the multinational enterprise (MNE), and the impact of losses and dividends. It also covers issues of valuation with focus on divergence between own funds at book value and market value and discusses methods to better approximate market values of unlisted equity. The paper proposes to record negative equity when it is a meaningful concept such as internal financing decision of MNEs, payments of large dividends or result of losses. The paper recommends do not zero out negative equity, unless there is confirmed misreporting.

I. Introduction

The international guidelines do not currently offer guidance on the treatment of negative equity in foreign direct investment (FDI) statistics, and the treatment of negative equity was included as an item on the research agenda in the 4th edition of the OECD's *Benchmark Definition of Foreign Direct Investment (BD4)*. Negative equity raises several questions, including about how to interpret such data, how countries should treat it, whether it is consistent with the valuation of listed equity, and whether negative equity, if common, could lead to a misstatement of a country's net international investment position (IIP). This note is intended to address this gap by exploring why negative equity occurs in FDI, by offering possible interpretations of negative equity, and by highlighting the important role that valuation plays in the occurrence of negative equity. It also makes proposals for how countries should treat negative equity when it is reported.

The equity value of an enterprise represents the value that remains for shareholders once all debts have been paid. Generally, it is expected that equity would be positive for an enterprise, but negative equity could result for a variety of reasons, including accumulated losses, large dividend payments, over-leverage (borrowing that leads liabilities to exceed assets), and creation of provisions for expected future liabilities resulting from the enterprise's activities. While negative equity can be an indication to investors and lenders that the firm is in trouble, it is not the same as insolvency and does not mean that the firm will go bankrupt. For example, start-ups may have negative equity. In addition, McDonald's, Colgate Palmolive, and Hewlett Packard are examples of companies in the S&P 500 that have negative shareholders' equity in their balance sheets. Despite this, these three companies have positive market capitalisations. This points to another important factor: the difference between the market valuation for a company and the value that appears in its financial statements.

¹ Prepared by Maria Borga, Directorate for Financial and Enterprise Affairs, OECD.

Negative equity could be more common in FDI than in general for a couple of reasons. First, FDI statistics rely to a great extent on the book values because, in practice, values based on the books of direct investment enterprises are often the only source of information available in many countries (*BD4*, paragraph 289). As discussed further below, book values are often less than market value and can be negative even for companies with positive market capitalisations. Second, FDI statistics try to measure the equity in the individual branches, subsidiaries, and associates of the MNEs rather than the value of the MNE as a whole. As a result, national estimates of direct investment equity, including negative equity, are significantly influenced by the legal status of the direct investment enterprise and strategic decisions by the MNE on financing, pricing, and dividends within the firm. These strategic decisions can be influenced by a variety of factors, including reducing tax burdens, managing risks, making optimal financial decisions, and helping to exert control over subsidiaries.

The Working Group on International Investment Statistics (WGIIIS) discussed negative equity at its March meeting. Some countries reported that negative equity is quite common—as many as 14% of foreign-owned affiliates in the economy and foreign affiliates owned by resident direct investors—while other said it was rare. Some countries noted that many of the cases of negative equity were accompanied by larger intracompany debt positions; in these cases, when the total intrafirm financing was considered (equity and intracompany debt), there was a positive overall liability position, consistent with parents choosing debt over equity financing for their affiliates. Some countries also mentioned that accumulated losses were often the cause of negative equity.

This note explores some reasons why negative equity is reported and offer guidance on its recording. It begins with a discussion of why negative equity could occur in FDI statistics that are recorded according to Own Funds at Book Value (OFBV), which is, by far, the most common valuation of unlisted equity positions in FDI statistics. The discussion considers the legal status of the direct investment enterprise, the financing decisions of the MNE, and the impact of losses and dividends. It then moves onto the issues of valuation. It, first, discusses the divergence between OFBV and market value, and, then, discusses methods to better approximate market values of unlisted equity. It concludes with questions for the Committee.

II. Reasons for negative equity in FDI statistics at OFBV

The issue of negative equity obviously concerns the valuation of the direct investment enterprise. The *Balance of Payments and International Investment Position Manual*, sixth edition (*BPM6*) and *BD4* both recommend the use of market value as the preferred conceptual basis for measuring all positions. In the case where the equities are listed in an organised market, the market value can be calculated by multiplying the numbers of shares held by the direct investor by the most recent bid/ask prices or the price at which the securities were last traded. As a result, with this approach, negative values would not occur in practice for listed equity. However, most equity in FDI is not listed on an organised market because most direct investment enterprises are wholly owned by a single direct investor or owned by a small group of direct investors. As a result, information is not readily available to calculate the market value, and, so, it is necessary

to estimate the market value. *BPM6* and *BD4* recommend six different methods to approximate the market value of unlisted equity in FDI, but, in practice one of these methods, OFBV, is the most common.²

OFBV values an enterprise at the value appearing in its books following International Accounting Standards (IAS). It contains paid-up capital, all types of reserves, and net value of non-distributed profits and losses (including results from the current year). IAS require most assets to be revalued on, at least, an annual basis. OFBV is widely used because the balance sheets of the direct investment enterprises are often the only information available to value the enterprise. It is the method recommended in the IMF's Coordinated Direct Investment Survey (CDIS) guide due to its availability as well as the fact that it should provide comparable values across countries (CDIS Guide, paragraphs 3.12-3.16). Recommending one method that relies on countries all collecting information from the books of the direct investment enterprises yields data that are useful for exploring and resolving asymmetries in FDI statistics, an important use of the CDIS. While OFBV offers many advantages in terms of availability and comparability, it has to be recognized that it can diverge from market values because IAS do not recognize many types of intangible assets that influence the market value of companies. While IAS does recognize self-created intangible assets, such as patents, software, trademarks, and customer lists, it does so under specific recognition criteria, including that the probable future economic benefits of the asset will accrue to the enterprise and the cost of the asset can be measured. However, this ignores other intangible assets, such as brand recognition or organisational capacity, that can contribute to the market value of an enterprise. In addition, book values are lower because accounting standards generally require companies to be conservative when assessing the value of their assets and pessimistic when valuing their liabilities. The issue of valuation will be discussed further in section III. This section will focus on the reasons that negative equity could occur when FDI statistics are recorded according to OFBV.

A. Prevalence of branches in FDI

One question that has been raised is whether negative equity is a meaningful concept given that incorporation offers owners limited liability. Under limited liability, the owner does not have any personal liability and cannot be held liable beyond the amount they have invested in the corporation. In these cases, the owner's equity has a lower limit of zero as it would not be possible to collect the amount by which liabilities exceeded assets (i.e., the negative equity) from the owners. However, some of the legal forms that direct investment enterprises take do not offer their owners limited liability. Specifically, branches, which make up a significant share of the population of direct investment enterprises in some countries, often do not offer their parents protection from being responsible for the liabilities of their branches.

Financial instruments included in FDI statistics include equity in branches (*BD4*, Box 4.1). In the *System of National Accounts 2008 (SNA 2008)*, these branches are quasi-corporations defined as 'unincorporated enterprises that belong to institutional units resident abroad, referred to as "branches"' (*SNA 2008*, paragraph 4.43). Generally, the foreign parent is fully liable for the branch and its activities since the branch is not autonomous. In the case of branches, negative equity is, therefore, possible and reflects the shortfall in non-debt funding by the parent to cover the liabilities it is incurring through its branch.

² Annex A to this document reproduces annex 5 to *BD4* which describes each of these methods, their informational requirements, and caveats on their usage.

In this case, the occurrence of negative equity would not lead to an overstatement of the net IIP of a country by incorrectly lowering its liabilities as the reduction in liabilities resulting from the negative equity reflects the shortfall in non-debt funding from the parent. For branches and other legal forms that do not offer owners limited liability, negative equity is economically meaningful.

B. Internal financing decisions of the MNE

The internal finances of MNEs can be complicated, reflecting a number of motivations, including a need for external financing, availability of internal financing, and fiscal optimisation. Thus, the parent company makes decisions about the financing of its affiliates in response to many factors that may lead them to prefer to finance specific affiliates through debt rather than equity. For example, the type of financing can be used to help the parent company control the management at the affiliate if they are concerned that the interests of management at the affiliate level conflict with the interests of management at the group level (i.e., there are agency problems). Parents may want to limit cash flow to affiliates that present agency problems, and one way for them to reduce cash flow is to have the affiliate pay interest on intracompany debt.

Probably the most common reason that the parent company may choose debt over equity financing is tax arbitrage within the MNE. The tax systems in many countries have a bias to debt financing over equity financing because they permit interest on debt to be deducted but not the costs of equity financing (IMF, 2016). Within the MNE, the parent company can choose to finance affiliates in high tax countries through debt to reduce their tax burden by deducting their interest payments and can make affiliates with low, or even zero, tax rates on interest receipts the creditor.³ An investigation of Starbucks operations in the United Kingdom revealed an example of this practice; it found that Starbucks' UK operations were entirely financed by debt (Bergin, 2012). Evidence of the interchangeability of debt and equity financing within the MNE and the ways that companies can use the differing treatments to reduce taxes can be found in the detailed guidance that tax authorities have developed for determining if some intercompany debt should instead be treated as equity (Ernst and Young, 2019).

It is possible that as part of the tax reduction strategy the interest payments on the intercompany debt could eliminate the profits of the direct investment enterprise leading to losses that would reduce equity over time. If the resulting shortfall in cash flow needed for operations is filled by intercompany debt, this could eventually lead to negative equity at the direct investment enterprise.

In these cases, the negative equity on the books of the direct investment enterprises reflects the actual financing decisions the MNE is making for those specific affiliates. Having these decisions reflected in the statistics could be useful to policymakers, including tax policy. For example, this information could be used to study the policy implications of different tax regimes on the financing decisions within MNEs. As mentioned in the introduction, countries report that often the sum of the negative equity position and the positive debt position in the direct investment enterprise is positive; therefore, the negative equity in these affiliates does not incorrectly overstate the net IIP of the host country once the total financing the parent provides to the direct investment enterprise (debt and equity) is considered.

³ While some countries have instituted measures to reduce the deductibility of interest, particularly on debt between affiliated parties, there is still opportunity for tax avoidance (IMF, 2011).

C. Losses and dividends

Leaving aside issues related to the valuation of assets and the potential for firms to engage in financial engineering to generate artificial ‘losses’ for tax planning, another reason for an affiliate to have negative equity is that the affiliate loses money in the real sense of the term, and those losses exceed the equity investment. A large single loss large enough to offset any reserves created from the accumulation of past profits and the equity capital invested in the enterprise would be enough to turn its equity negative. It is also possible that losses could persist over a longer period and make the equity in the affiliate negative. Not unrelated to the challenges presented by OFBV approaches to valuation – and in particular the omission of many ‘intangible’ assets – there are legitimate reasons for an enterprise group to retain an unprofitable affiliate. For example, if the MNE is more focused on gaining market share as part of its foreign expansion strategy than on immediate profitability for an affiliate in a particular market, it could accept losses at that affiliate for a period of time as it develops brand awareness and value. Another case is startups that may have losses for a considerable period of time before turning profitable; more and more companies are becoming multinational even in their startup stages. Finally, there are affiliates, such as in mining, that may operate for a considerable period before becoming profitable.

Another possible reason, similar to that related to financial engineering (Section B), for the affiliate to be unprofitable is transfer pricing. If a direct investment enterprise is compensated at prices lower than arm’s length prices for the goods and/or services it provides to other parts of the MNE, it could have losses, and these losses could lead to negative equity in the affiliate.

BPM6 and *BD4* offer recommendations for adjustments to be made to direct investment flows when transfer pricing is confirmed. In the case relevant for an affiliate being under-invoiced for the goods and/or services it is providing, paragraph 310 of *BD4* states: “Where a direct investor is under-invoiced on a good or services provided by the direct investment enterprise, the difference in payment between the market value and the invoice price is effectively a return of assets of the direct investment enterprise to the direct investor (goods) or a rundown of the assets of the direct investment enterprise by the direct investors (services).”

According to paragraph 11.101 of *BPM6*, “if a direct investor is underinvoiced on a good or service provided by the direct investment enterprise, then the transfer pricing acts as a hidden dividend from the direct investment enterprise, so dividends should be increased by the difference between the market value of the goods and services and the prices actually charged.” This means that there should be an increase recorded in the value of the goods or services recorded, in the earnings of the direct investment enterprise, and in the dividends paid by the direct investment enterprise. These adjustments to direct investment mean that the changes to FDI earnings resulting from the correction for transfer pricing leave the reinvested earnings unchanged. That is, if the direct investor is engaging in transfer pricing with an affiliate to such an extent that the affiliate has negative equity, then the negative equity would persist even after the transfer pricing was corrected for.

Another reason that enterprises can have negative equity are large dividend payments that either exhaust retained earnings or exceed shareholders' equity. This can happen when dividends are followed by losses, so a large dividend payment that is followed by losses at an affiliate could push its equity negative. This could also happen if an affiliate were to borrow money and then pay a large enough dividend to its parent to turn equity in the affiliate negative; this decision could be part of a tax reduction strategy and again reflects the

choice of the direct investor to borrow through a particular affiliate and distribute the money in the form of a dividend. The payment of large dividends can be driven by the need for financing within the MNE, but also by changes in tax policies, such as the large dividends paid as a result of the 2017 U.S. tax reform (OECD, 2018).

If the negative equity is the result of losses, then the negative equity reflects both the profitability of the operations in that country and the decision of the MNE to maintain an unprofitable affiliate. If the negative equity is the result of payments of large dividends, then it reflects decisions made by the parent about distributions from the affiliate.

D. Mismeasurement

Another reason for negative equity is mismeasurement or misreporting by the respondent. To compile FDI statistics, direct investors are asked to report details on the financing of affiliates that they may not have in their record-keeping systems. This is especially the case for quasi-corporations. For quasi-corporations, *BD4* states that they are “unincorporated enterprises operating separately from their owners that have, **or for which it is possible or meaningful to construct**, a separate set of financial accounts” (*BD4*, paragraph 33, emphasis added). In these cases, the reporter may not have full financial records to base its reporting on but, instead, must estimate the values.

If it is suspected that misreporting is the cause of the negative equity, then the reporter should be contacted to confirm or correct the reporting. In addition to a lack of financial statements for a direct investment enterprise, there are other factors that might indicate misreporting. For example, negative equity is less likely at incorporated subsidiaries than at branches. In addition, the absence of persistent losses, large distributions of income, or large amounts of intercompany debt make it less likely that the negative equity is arising from decisions on financing and pricing within the MNE and more likely that it is misreporting. If the reporting is corrected, then the reporter should be encouraged to make sure that reporting to other countries is also corrected as any increase in shareholder’s equity at an affiliate would need to be offset by decreases elsewhere to ensure that the sum of the shareholder’s equity reported by that company to different countries did not exceed its worldwide shareholder’s equity. Given the interrelationships between data reported to different countries, improved opportunities for data sharing between countries would help countries identify misreporting in general and to ensure that changes to reported data are made consistently across countries.

Countries are not encouraged to change, and in particular to zero out negative equity, unless misreporting is confirmed. As just mentioned above, zeroing out negative equity in one country without accompanying adjustments could lead to overstating the shareholder’s equity of that MNE globally. In addition, in the case when, for example, the parent has chosen to finance the affiliate with debt rather than equity, zeroing out negative equity with no adjustment to the debt position would overstate the investment by that parent. As discussed above, negative equity is meaningful in the cases of legal forms of direct investment enterprises that do not offer unlimited liability. Maintaining negative equity in the FDI statistics at OFBV provide information on the strategic decisions of the MNE with regards to financing, pricing, and paying dividends as well as potentially on the profitability of affiliates. Given the unusual nature of negative equity, countries could be encouraged to communicate to their users on why negative equity may occur and what it implies about the financing of the firms involved.

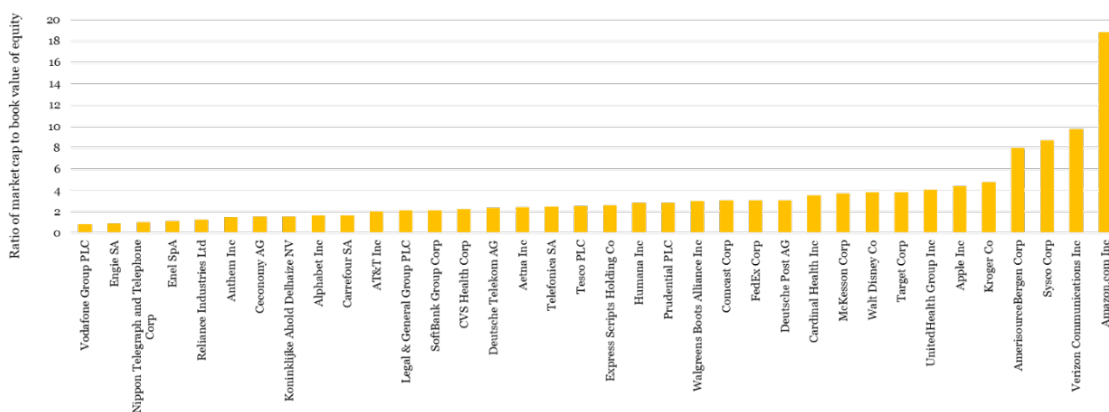
Nevertheless, the retention of negative equity in FDI statistics means that the FDI liabilities of the country of the direct investment enterprise will be lower as will be the FDI assets of the country of the direct investor. If significant, negative equity could lead to misstatements in a country's net IIP. While zeroing out negative equity might bring it closer to the value of the direct investment, it is important to note that zeroing out the negative equity on the books of the direct investment enterprise does not make it reflect the market value of the unlisted equity. Instead, the issues of valuation would need to be tackled by better approximating the market value from the reported data.

III. OFBV versus market valuation

While market value is the preferred conceptual basis for measuring all positions, in practice it is difficult given the prevalence of unlisted equity in FDI positions. As a result, compilers must approximate market value. One of these methods, OFBV, is by far the most commonly used because the balance sheets of the direct investment enterprises are one of the only widely available data sources.

While OFBV offers many advantages in terms of availability and comparability, it has to be recognized that it can diverge from market values because IAS prohibit the recognition of many types of intangible assets and because they take a conservative view of the value of assets and a pessimistic view of the value of liabilities. To illustrate this divergence, Figure 1 shows the difference between book value and market value for a selection of large MNEs in the retail trade and services sectors. The market capitalisations are often multiples of the book values. As noted earlier, companies with negative equity on their books can have positive market capitalisations. Therefore, better approximations to market values of the FDI positions would reduce, or even eliminate, the occurrence of negative equity in FDI statistics.

Figure 1. Ratio of market capitalization to book value of equity, at end of year 2016



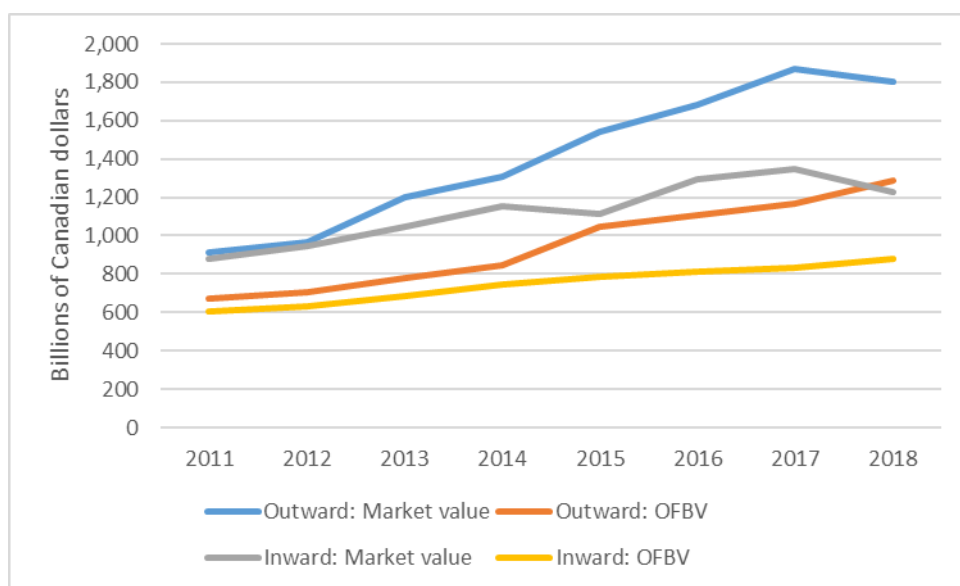
Source: OECD's Analytical Database of Individual Multinationals and their Affiliates and stock market data

This divergence between market value and OFBV means that unlisted equity in FDI does not have the same valuation as other functional categories in the IIP or, indeed, as listed equity in FDI. At the 2018 BOPCOM meeting, the IMF Research Department presented on data challenges to assessing global imbalances that included consistent valuation in the IIP as one of these challenges (IMF, 2018). To illustrate, consider the example of an MNE that is publicly traded. Shares held in this MNE by non-residents would be included in

portfolio investment liabilities and would be valued at their market price while the foreign operations of the MNE, which would be included in direct investment assets, would be valued at the lower book value. If that MNE has a market capitalization much greater than the value of shareholder's equity in its books, as is likely, then the home country would have a weaker net IIP than it would have had if both the assets and liabilities associated with this company reflected its market value. Thus, market value measures of FDI positions would help to enhance consistency within the IIP.

A few countries produce market value estimates of FDI positions using methods other than OFBV. One of these is Canada, and figure 2 illustrates the difference between the inward and outward FDI positions of Canada measured according to OFBV and market value. The market value estimates are based largely on applying ratios of market to book value by geographic region and industry to the underlying book value data collected from companies; this is the market capitalization method and is one of the other methods recommended in *BPM6* and *BD4*.⁴ Figure 2 shows that there is a divergence between market value and the OFBV. It also shows that the series can show different directions of change, with the OFBV values consistently increasing while the market value estimates rise and fall.

Figure 2: FDI Positions of Canada at Market Value and Own Funds at Book Value, 2011 to 2018



Source: Statistics Canada

To produce better approximations of market value, countries would need to use one of the other recommended methods. The next section will discuss the most promising of these methods and ways that international organisations could help countries to implement them.

⁴ A methodology for the market values of FDI positions for Canada can be found at: <https://www150.statcan.gc.ca/n1/pub/13-605-x/13-605-x2006002-eng.htm>.

IV. Methods for approximating the market value of unlisted equity

There are three methods that would provide better approximations to market value than OFBV: Market capitalization method; present value/price to earnings ratio; and apportioning global value.⁵ However, these methods are not widely used because they pose practical difficulties, which are substantial in some cases.

The market capitalization method calls for applying ratios of market value to book value but should be done at the industry level because these ratios can vary substantially across different sectors. In addition, they should be based on data from markets that are deep and have high trading volumes. Some care is obviously needed in cases of negative equity, where its application would not make sense, leading instead to larger negative equity values rather than a positive value that is likely to better reflect the actual market value of the direct investment enterprise.

The present value/price to earnings ratio calls for estimating the value of unlisted equity based on calculating the present value of the stream of future earnings. This requires assumptions about the discount rate to be used as well as forecasting future profits. It can also be done by applying an industry price to earnings ratio to the recent earnings of the direct investment enterprise. This method would yield a negative equity value when there are persistent losses, and persistent losses are one of the sources of negative equity discussed earlier.

Apportioning global value calls for allocating the market capitalization for the MNE group as a whole based on some indication of the value of operations in each economic territory. This method offers the advantage that it would ensure that a specific MNE would be valued consistently throughout the accounts. It would also avoid negative equity values, depending on the indicator chosen. However, it has very large information demands as it requires data on the operations of the whole MNE as well as the choice of an appropriate indicator to apportion the value (e.g. sales, net income, assets, or employment) and arguably stretching assumptions, especially for MNEs with operations that cut across a number of activities, e.g. processing versus R&D. It would also not be available for privately held companies.

To ensure that countries are measuring their FDI positions consistently, it would be necessary to settle on one robust method to approximate market values of unlisted equity. It would also be important to develop a method that takes into account the different ability levels at statistical agencies so that all countries could implement it. Finally, the method would ideally not involve placing any additional reporting burden on companies.

⁵ Another method, recent transaction price, would also provide better approximations of market values but would not be widely available. The other method, net asset value, could yield better approximations to market value, but it would depend on how well intangible assets are covered and how well current prices are reflected in the valuations as explained in annex A. Also, the detailed information required for the net asset value method would also likely not be widely available.

International organisations could assist countries in developing these methods by helping to motivate the development of better practical guidance on their use as well as identifying appropriate data sources. Several issues could be addressed:

- For the market capitalisation method, the industry detail at which ratios should be calculated, when are capital markets deep enough, how could regional indexes be used when information at the individual country level is not available, how to overcome challenges in cases of negative equity values, what refinements could be adopted, for example applications of ratios that look only to estimate missing intellectual property in the OFBV method;
- For the present value/price to earnings ratio method, the discount rate to be used, the industry detail at which price to earnings ratios should be calculated; and what to do in the case of persistent losses; and
- For the apportionment approach, what would be the appropriate indicator and how would the method be applied for MNEs with heterogeneous activities across countries.
- In addition, international organisations could continue to develop public sources of data on MNEs, such as the OECD's Analytical Database of Individual Multinationals and their Affiliates (ADIMA) that could be useful in helping countries to implement these methods, especially the apportioning of global value method.

This work could draw on the experiences of countries, including Canada, the United States, and Turkey, that publish FDI positions on a market value basis for inclusion in their IIP. International organisations and countries could build on the experiences of these countries and these new data sources to develop one method for countries to use for the aggregate FDI statistics included in their IIPs.

Even with these efforts, it is unlikely that such a method would yield estimates that could be applied at the detailed country and industry level in the near future. Thus, countries could be encouraged to apply market valuation for the estimates of their aggregate FDI unlisted equity positions for inclusion in the IIP. Measuring FDI positions at market value would improve consistency in valuation across the IIP. It should also reduce the occurrence of negative values for unlisted equity in FDI statistics, and certainly help to reduce those occurrences driven by unrealistic valuations or mismeasurement. In addition, countries would be encouraged to provide information on flows and other changes in positions consistent with these market value estimates of the positions. To ensure consistency across countries would require the application of the same method across all countries.

For now, countries are encouraged to continue to compile their detailed unlisted equity position statistics by partner country and by industry as reported to Eurostat, the IMF, and OECD on an OFBV basis. The financial accounts of direct investment enterprises remain the best source of data for these detailed statistics, and their use will enable the continued analysis and resolution of asymmetries. While this would add another difference between the two sets of statistics, the aggregate FDI statistics included in the IIP already differ from the detailed statistics in terms of both measurement principle (asset/liability versus directional principle) and frequency (quarterly versus aggregate).

V. Conclusion

BPM6 and *BD4* do not provide guidance on the treatment of negative equity in FDI statistics. This note has attempted to fill this gap by exploring the reasons that direct investment enterprises could have negative

equity values on their books. These reasons include that the direct investment enterprise is a branch, and thus, that the parent does not have limited liability for the activities of the branch. Negative equity on the books of direct investment enterprises can also reflect decisions of the parent regarding the use of debt rather than equity financing of the affiliate and distributions of income. It can also reflect the profitability of the operations. In these cases, the negative equity reflects decisions regarding the financing and operations of the affiliates that could be useful to policymakers, including for tax policy. As long as the negative equity reflects the strategic decisions of the MNE, it is valuable to have them recorded in the statistics at OFBV.

However, the use of OFBV to value direct investment positions results in inconsistencies in valuation across the IIP and, potentially, of the same firm. Countries could be encouraged to develop market value estimates of their aggregate FDI positions using a method that would yield better approximations to market value. They could be helped in this work by international organisations working to motivate the development of practical guidance (e.g. through dedicated Task Forces or existing bodies) and new data for their implementation. Nevertheless, the annual FDI statistics by partner country and by industry reported to Eurostat, the IMF, and OECD could continue to be on an OFBV basis as the values on the books of direct investment enterprises remain the best source for these detailed statistics; they are also the best source of data for addressing bilateral asymmetries.

Questions for the Committee:

- *Does the Committee agree with the reasons put forth for why negative equity could be recorded at direct investment enterprises? Do you know of additional reasons for why negative equity might occur?*
- *Does the Committee agree that negative equity should be reflected in FDI statistics when measured at book values if it reflects the decisions of the parent company regarding the financing of the affiliate, the profitability of the affiliate, or other strategic decisions within the MNE?*
- *Does the Committee agree that countries should be encouraged to develop valuations of their aggregate FDI positions that are closer to market values to reduce inconsistencies across the IIP and reduce or eliminate the occurrence of negative equity in FDI?*
- *Does the Committee agree that international organisations should help these efforts by motivating the development of more practical guidance and new data sources?*

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Annex A: Methods to Value Unlisted Equity

Annex 5 of BD4 discusses six different recommended methods to approximate the market value of unlisted equity in direct investment enterprises. This annex reproduces this discussion, including information on what is needed to apply the method and caveats for its use.

1. Recent transaction price

Unlisted equity may trade from time to time, and recent prices at which the equity exchanged hands may be used. The transaction price must represent an ‘arm’s length’ price between an independent buyer and seller, where neither party is under compulsion or duress to engage in the transaction. More recent transactions are preferable, and it is desirable that the transactions should have occurred within the past year. If the most recent transaction is more than one year old, compilers may wish to consider an alternative method.

Usage: A recent arm’s length price is required.

Caveats: Not often available due to low frequency of trade in unlisted equity. When a transaction price has been used in the past to value the equity, but the information is becoming dated, a strategy is required to splice the valuation with a valuation calculated from another method.

2. Own funds at book value

Own funds at book value (OFBV) involves valuing an enterprise at the value appearing in its books following International Accounting Standards (IAS). OFBV is based on the books of the direct investment enterprise and can be seen on its balance sheet as shareholder’s equity. The definition of OFBV contains paid-up capital, all types of reserves, and net value of non-distributed profits and losses (including the result for the current year). IAS require most assets to be revalued on, at least, an annual basis. A capitalisation ratio may be calculated and applied (with or without liquidity adjustment) if sufficient information is available.

Usage: This method may be used where books are kept on the basis of IAS, and access is available to the books of the direct investment enterprise.

Caveats: IAS prohibit the recognition of certain intangible assets (e.g. brands, mastheads, publishing titles, customer lists). Goodwill can only be bought; it cannot be internally generated. Assets in some asset classes (loans, assets held to maturity and non-trading liabilities) may be valued at nominal or historic cost. These will cause distortion from market valuation. Calculation of capitalisation ratios requires a reasonably broad stock market with high trading volume, but application of a well-based capitalisation ratio may dampen the impact of other caveats.

3. Net asset value (NAV)

a. NAV including goodwill and identified intangibles

Net asset value (NAV) is total assets at current/market value less total liabilities (excluding equity) at market value. Under this valuation method, all financial and non-financial assets and liabilities of the enterprise, including intangible assets, are stated in terms of current period prices. The valuations should be based on very recent appraisals—certainly they must be within the prior year. Appraisals may be conducted by knowledgeable management or directors of the firm, and/or provided by independent appraisers. A

capitalisation ratio may be calculated and applied (with or without liquidity adjustments) if sufficient information is available (see market capitalisation method).

Usage: At a minimum, this method requires an asset and liability valuation to be undertaken by the enterprise.

Caveats: NAV provided by an enterprise may exclude some classes of assets (e.g. intangibles), while other assets may be valued using a method that is a distortion from the current market value (e.g. historic cost or nominal value). To the extent that valuations are poor or assets are excluded from the NAV, this method can be a poor approximation of market value and other methods may be more appropriate. Calculations of capitalisation ratios requires a reasonably broad stock market with high trading volume.

b. NAV excluding goodwill and identified intangibles

Under this valuation method, all financial and non-financial assets and liabilities of the enterprise, excluding intangible assets, are stated in terms of current period prices. The valuations should be based on very recent appraisals—certainly they must be within the prior year. Appraisals may be conducted by knowledgeable management or directors of the firm, and/or provided by independent appraisers.

Note that the difference between this method and the one immediately above, is that this method excludes, whereas the earlier discussed method includes, goodwill and identified intangibles. However, it is often very difficult to estimate the value of these assets. Compilers who can develop relatively accurate estimates of unquoted equity that include goodwill and identified intangibles are encouraged to do so. Doing so promotes consistency between the estimates for quoted shares (these shares trade at prices that reflect the value of intangible assets) and the estimates for unquoted shares.

Usage: Compilers who cannot accurately provide estimates that include goodwill and identified intangibles may use this method.

Caveat: Goodwill and intangible assets may account for much or most of the current value of many direct investment enterprises. This valuation might not be representative of market value.

4. Market capitalisation method

This method proposes the use of a capitalisation ratio as the ratio of stock exchange/market capitalisation to “own funds at book value” calculated for the same set of listed companies. In constructing the capitalisation ratio under this method, stock market data for an individual country may be used when the stock market in that country is broad and trading volume is relatively high, and broad regional indexes should be used when these circumstances do not exist. The estimate of market value of direct investment equity in unlisted companies is calculated by multiplying own funds at book value (owners’ equity) of unlisted direct investment enterprises by the capitalisation ratio [that is, by the stock exchange market capitalisation (numerator) to the own funds at book value of listed companies (denominator)]. Capitalisation ratios developed from broad stock exchange data should be adjusted, or individual ratios should be developed for separate industry groups, if the industries represented in the broad stock exchange for a given economy are not representative of the industry mix of direct investment enterprises located in the same economy. Book values that are based on another set of accounting standards—such as US generally accepted accounting principles—that contain major attributes of International Accounting Standards (inclusion of cumulative

reinvested earnings; revaluation of financial instruments in current period prices; and inclusion of cumulative depreciation of plant and equipment, including write-offs of worthless assets) may also be used with the capitalisation ratio method.

Usage: Useful exercise if the overall enterprise listed in the stock exchange are good representatives of the national industry.

Caveats: Some very large local foreign direct investment unlisted enterprises might represent almost the entire industry. Another strategy is then required to better reflect the market valuation of that enterprise. Apart from this, some other considerations could be seen as caveats of this method, for example, some specialists question the assumption that quoted and non-quoted companies should use the same ratio to own funds. Being quoted in a public market means that a company has to comply with more strict rules, provide more detail information to market participants, etc. Moreover, a liquid asset (quoted shares) may have a higher value for the fact of being liquid.

5. Present value / price to earnings ratio

The value of unlisted equity can be estimated as the present value of the forecast stream of future earnings. This method has at its heart the issue of choosing an appropriate discount rate, which can be inferred from the implicit discount rate obtained for listed equity, and forecasting the future profits. At its simplest, this method can be approximated by applying a market or industry price-to-earnings ratio to the (smoothed) recent past earnings of the unlisted enterprise to calculate a price. In this case, the recent past earnings are used as the basis to forecast the future earnings, and the market price-to-earnings ratio implies the discount rate.

Usage: This method is most appropriate where there is a paucity of balance sheet information but earnings data are more readily available. It also requires an appropriate discount rate or reasonably broad-based price-to-earnings ratio to be calculated.

Caveats: Earnings for an individual enterprise can have a highly irregular component and can be negative (leading to negative equity valuations). As a result, if earnings information over a longer period of time is available, the earnings of the enterprise should be smoothed. If earnings for only one period are available or discount rates or price-to-earnings ratios are based on a narrow market, other methods are preferable.

6. Apportioning global value

If the equity in a particular direct investment enterprise is unlisted, but the enterprise belongs to a global enterprise group whose equity is listed, the current market value of the global enterprise group can be calculated and apportioned according to the operations in each economic territory. The current market value of the global enterprise group should be based on its market price on the exchange on which it is traded, and the apportionment of this value to each economic territory should be based on an appropriate indicator (e.g. sales, net income, assets, or employment).

Usage: Current market capitalisation of the global enterprise group is required. As such, this method may only be feasible for outward investment. An indicator that is well-correlated with market value and is readily available is also necessary. This is more likely to occur in enterprise groups that are horizontally integrated.

Caveats: Weaknesses in the correlation between market value of equity and the variable used for apportioning the global value will lead to distortions—sensitivity to the distortion is greatest when the proportion allocated to an economic territory is small or when different activities take place in different economic territories. In this case, other methods may be preferable. The use for outward investment only may lead to asymmetries in bilateral comparisons.