Forty-Second Meeting of the

IMF Committee on Balance of Payments Statistics

Bali, Indonesia

October 24–26, 2023

BOPCOM—23/02

For discussion

Equity: The Case of Negative Valuations: Discussion Note

Prepared by the Statistics Department

INTERNATIONAL MONETARY FUND

Equity: The Case of Negative Valuations: Discussion Note[1]

As a matter of fact, valuation methods can generate negative positions for equity. This raises several important questions: Is negative valuation of equity economically meaningful? When and how should negative valuation of equity be recorded in macroeconomic statistics? Given that macroeconomic statistics manuals do not offer express guidance on the treatment of equity with negative valuations, there is a need to provide explicit advice across statistical manuals. This note recommends that negative valuation of equity may be recorded for unlimited liability entities and should generally be zeroed out for limited liability entities, except for certain legal and economic cases explained in the note.

THE ISSUE

BACKGROUND AND SCOPE OF THIS NOTE

1. **Valuation of Equity:** Valuation methods can lead to negative valuation[2], but current statistical standards provide no clear guidance for these cases, and Guidance Note *D.2 Valuation of Unlisted Equity* identified a need for further clarification of this issue. The six recommended *fair valuation* methods for unlisted equity are the same in the *2008 System of National Accounts (2008 SNA)* (paragraph 13.71) and the *Balance of Payments and International Investment Position Manual, sixth edition (BPM6)* (paragraph 7.16), which is further reduced in the Guidance Note D.2 to three methods: Own funds at book value (OFBV), recent transaction prices, and market capitalization (for instance, P/B-ratios). OFBV and market capitalization valuation methods can generate negative valuations while recent transaction prices cannot be negative in cases where the investor is not liable for any losses exceeding the capital invested in the enterprises. Since listed companies are regularly traded and the investors subject to limited liability, this note is mostly relevant for unlisted equity.

2. Negative asset positions can arise for other reasons than negative valuations and are recorded in the statistical accounts in specific cases. This is, for instance, the case with short positions (*BPM6,* paragraph 7.28; *2008 SNA,* paragraph A3.94) and transferable contracts and leases where the contract holder paid (or would need to pay) another party to take up the obligation (*BPM6,* paragraph 13.15; *2008 SNA,* paragraph 17.372). The motivation for recording negative positions is driven by an explicit contractual obligation.

PREVIOUS DISCUSSIONS

3. **Previous discussions of negative valuation of equity in macroeconomic statistics:**

- In 2019, the IMF Committee on Balance of Payments Statistics identified five possible causes for negative valuation of equity in direct investment statistics: (i) legal status of the direct investment

[1] Prepared jointly by Mr. Thomas Elkjaer (IMF) and Mr. Maciej Anacki (ECB), with further inputs and proposals from the BPM and SNA editorial teams.

[2] For instance, Damgaard and Elkjaer (2014), studying 4,000 unlisted companies in Denmark, found that around 15 percent have negative own funds at book value.

enterprise, (ii) financing decisions of multinational enterprises (MNEs) – financial engineering, (iii) losses exceeding the equity investment, (iv) payments of large dividends, and (v) erroneous reporting by the respondents. It was agreed to record negative values in cases (i) – (iv) and to zero out in case (v).[3]

- Guidance note D.2 (paragraph 21) recognizes the need for further analysis. It suggests practical causes for why negative valuation can occur, for instance, decisions of the parent to use debt rather than equity financing of the affiliate, distributions of income or strategic decisions of the MNE. Further, it points to negative valuation being economically meaningful for unlimited equity liability entities (including branches) while no economic meaning is attached in the case of limited liability.[4]

4. **The *Government Finance Statistics Manual 2014 (GFSM 2014)* paragraph 7.173 anticipates negative valuation of other equity for unincorporated enterprises, such as government quasicorporations, whose net worth is zero; while for incorporated corporations with limited shareholder liability, the minimum value of their equity is zero.** The *OECD Benchmark definition of Direct Investment, fourth edition (BD4)* paragraph 674 mentions the treatment of negative equity as one of the issues that require further refinement or practical examples. The *European System of Accounts (ESA 2010)* is silent on this topic.

DISCUSSION

IS NEGATIVE VALUATION OF EQUITY LEGALLY AND ECONOMICALLY MEANINGFUL AND WHEN?

5. **In general, the obligations of equity owners are reflected in their unlimited (possibility for negative valuation) and limited liability.** Limited liability protects investors from losses exceeding the value of their invested capital. Therefore, while valuation methods can result in negative valuation of limited liability entities, it may not be meaningful to record it in macroeconomic statistics as this is not consistent with the limited liability aspect for equity owners. This is different for unlimited liability entities,[5] where the owners are liable for all the debts and obligations of the entity. Hence, negative valuation can occur both legally and economically for unlimited liability entities, and it is consequently meaningful to reflect such negative positions in macroeconomic statistics.

---

[3] Note and Summary of Discussions are available here.

[4] In the European context, the European System of Central Banks Working Group on Financial Accounts (2019) concluded that negative values for equity when the liability is limited should not be recorded irrespective of the method used for estimation of market valuation. This decision was based on the following arguments: in general terms, shareholders do not have any obligation to provide additional funds beyond the initial funds provided: only in the case of unlimited liability (including branches), equity holders are obliged to provide additional funds; limited liability corporations do not entail any obligation by the shareholders other than the initial funds provided. In the absence of unlimited liability or specific cases where holders face economic losses beyond their original investment without being unlimited liability in legal terms, recording of negative equity would artificially reduce liabilities, providing a distorted reflection of the economic reality.

[5] In macroeconomic statistics, unlimited liability entities are typically branches, trusts, or quasi-corporations that operate separately from their owner or notional units created to avoid combining entities in different economies (*BPM6* paragraph 4.18).

6. **In addition, even for limited liability entities, there are exceptions to the limited liability aspects of either legal or economic nature.**

7. **Exceptions of Legal Nature:** Investors may be liable for the debts of their subsidiaries due to legal obligations, bilateral arrangements with the authorities, or following decisions of the tax authorities. In certain situations, the courts may "pierce the corporate veil" and hold shareholders or owners personally liable if they have engaged in fraudulent or illegal activities, have not maintained proper separation between personal and corporate finances, or have not followed legal requirements and formalities for the entity. Such cases should be assessed by the compilers on a case-by-case basis against the general rules. The authors are divided on whether a legal exception should be applied in the case of loan guarantees.

Option 1 (recommended by one of the authors and the BPM and SNA editorial teams): This option treats loan guarantees like other legal obligations and allows for the recording of negative equity (up to the amount of the guarantee) when shareholders have provided such guarantees. The rationale for this treatment is that loan guarantees are as legally binding as other legal obligations, and there are no economic or legal reasons to treat them differently. Importantly, while this option allows negative equity to be recorded when there is a loan guarantee, it does not deviate from the general principle that the guarantee itself is only recorded when it is called. In addition, since other legal arrangements mentioned in this paragraph are also contingent assets and liabilities, differences in the treatment of loan guarantees and other legal obligations would lead to inconsistent treatments.

Option 2 (recommended by the other author): This option does not allow the recording of negative equity when the shareholders have provided loan guarantees as this would represent a departure from the general treatment of one-off guarantees which are not recorded in the accounts, with the only exception being one-off guarantees granted by governments to corporations in certain well-defined financially distressed situations and with a very high likelihood to be called (*2008 SNA,* paragraph 17.212; *BPM6,* paragraph 5.68)—that is, what is now a rare exception only for guarantees granted by government would become the standard rule for guarantees granted by shareholders on the debt of the corporations they have a stake in.

8. **Exceptions of Economic Nature:** In the absence of legal obligations, shareholders may let a limited liability entity fail in case of a capital shortfall. Shareholders may also choose to rescue it and cover the losses of other creditors, but this would be a voluntary action that would be reflected once the rescue takes place in the form of a capital injection/transfer. At the same time, majority shareholders arguably choose the financing mix they provide to the corporations in which they participate in the form of either debt or equity. For instance, an MNE may choose to provide debt rather than equity financing for tax arbitrage purposes, with little impact on the overall ultimate risk borne by the parent corporation. Therefore, when the non-equity liabilities of a limited liability entity exceed its assets, it would make sense to record negative equity (up to the amount of loans provided by shareholders) when the shareholders would be subject to loan losses in case of bankruptcy.

RECOMMENDATION

9. **This note recommends that negative valuation of equity may be recorded for unlimited liability entities and should generally be zeroed out for limited liability entities, except for certain**

legal and economic cases explained in paragraphs 7–8. Recording negative equity for limited liability entities may result in a misrepresentation of the impact on shareholders and creditors when there are no legal or economic reasons to believe that investors will be liable for losses. In such cases, the risks of financing shortfall are also with the common creditors and not only with the shareholders, as the claim of the former exceeds the residual value of the corporation, which may lead to their claims being devalued or written down or off.

10. **Does a general lower bound of zero on the value of equity for limited liability entities raise consistency issues in the system of accounts?** Horizontal consistency is maintained regardless of whether the equity value declines to zero or is allowed to turn negative, provided the same value is recorded for liabilities of the corporation and the assets of the holders.[6] Stock-flow consistency should be ensured by recording revaluations (other price changes) equal to the change in the value of the lower-zero-bound adjustment within the period.

Questions for Discussion

1) *Do the Committee/AEG members agree that negative valuation of equity may be recorded for unlimited liability entities and should generally be zeroed out for limited liability entities, except for certain legal and economic cases explained in the note?*
2) *Do the Committee/AEG members support Option 1 (recommended by one of the authors and the BPM and SNA editorial teams) or Option 2 (recommended by the other author) regarding the recording of negative equity when shareholders have provided loan guarantees?*
3) *Do the Committee/AEG members agree that, for zeroed-out values, stock-flow consistency should be ensured by recording revaluations equal to the change in the value of the lower-zero-bound adjustment?*

[6] Zeroing out negative equity could lead to vertical imbalances since total assets of an entity would no longer match total liabilities. This difference will be captured by net worth in the national accounts (i.e., net worth will be negative to maintain vertical balancing when equity is zeroed out) but not in the external accounts. Nevertheless, the issue of vertical imbalances is not unique to negative equity. For instance, for listed companies, market prices are used for the valuation of equity, and they often differ significantly from book values.

Annex I. Supplementary Information

REFERENCES

Damgaard, Jannick and Thomas Elkjaer. “Foreign Direct Investment and the External Wealth of Nations: How Important is Valuation?” Review of Income and Wealth, Series 60, Number 2, June 2014 (245–260)

De Mooij, Ruud and Li Liu. “At a Cost: The Real Effects of Thin Capitalization Rules” IMF Working Paper No. WP/21/23, February 2021.

ECB, “Cases for recording of negative stocks”, ESCB Working Group on Financial Accounts, May 2016.

ECB, “Developing best practices: Unlisted equity – Valuation of equity in the case of negative own funds”, ESCB Working Group on Financial Accounts, November 2019.

Eurostat (2010), *European System of Accounts* (*ESA2010*)

IMF (2008), *Balance of Payments and International Investment Position Manual, sixth edition*, Washington, DC.

IMF (2015), *Coordinated Direct Investment Survey Guide*, Washington, DC.

IMF (2014), *Government Finance Statistics Manual*, Washington, DC.

IMF (2019), “Negative Equity in Direct Investment Statistics” prepared by Maria Borga at Thirty-Second Meeting of the IMF Committee on Balance of Payments Statistics—19/16a, Thimphu, Bhutan.

Kumah, Emmanuel, Jannick Damgaard, and Thomas Elkjaer, “Valuation of Unlisted Direct Investment Equity” IMF Working Paper No. 09/242, November 2009.

OECD (2008), *Benchmark Definition of Foreign Direct Investment, fourth edition*, Paris.

UN (2009), *System of National Accounts*, New York.