

## F.8 Valuation of Debt Securities at Both Market and Nominal Value



## F.8 Valuation of Debt Securities at Both Market and Nominal Value<sup>1</sup>

*The valuation method for debt securities recommended in the System of National Accounts, 2008 (2008 SNA) and Balance of Payments and International Investment Position Manual, sixth edition (BPM6) is market value. This Guidance Note advocates the inclusion of explicit guidance in the SNA and BPM to compile stocks of debt securities at nominal value, as a supplement to the existing market valuation. It proposes to strengthen the recommendation to compile securities liabilities using both market and nominal values. It also proposes to adopt a presentation table that provides a reconciliation between nominal and market valuation of debt securities liabilities. Finally, for external sector statistics, the note proposes reporting debt securities used in direct investment inter-company lending as a supplementary item to the table.*

### SECTION I: THE ISSUE

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#### BACKGROUND

- 1. Debt securities have a market value as well as a nominal value, and both values can be used for presenting securities statistics (i.e., for some purposes, supplementary data on the nominal values of positions of debt securities are relevant).** The *Balance of Payments and International Investment Position Manual, sixth edition (BPM6)* indicates that “the nominal value of a debt instrument is a useful measure of value from the viewpoint of the debtor because, at any moment in time, it is the amount that the debtor owes to the creditor” (*BPM6*, para. 7.30). This value can usually be established by reference to the terms of a contract between the debtor and creditor, and is frequently used to construct debt ratios in vulnerability and sustainability analysis for policy purposes (notably for government debt—the *Public Sector Debt Statistics Guide (PSDSG)* requires nominal valuation and the European Maastricht debt concept focusses on face value<sup>2</sup>). More generally, the *Handbook on Securities Statistics (HSS)* states that “both values provide useful information from the perspective of monetary policy, fiscal policy, and financial stability analysis” (*HSS*, para. 5.41).
- 2. For some users, a strong emphasis should be given to the compilation of the nominal value as a supplementary item for debt securities.** In particular, during periods of financial and economic crisis, massive price distortions may significantly influence the net international investment position (IIP) of a country (or the net financial position of a domestic sector in the context of national accounts), and a potentially counter-intuitive improvement in the net IIP may be observed when an economy is facing a period of financial trouble. Moreover, in periods of high volatility in the financial markets, in a context of a fall in macroeconomic projections or changing interest rate environment, nominal value is relevant. The divergence in the market and nominal value of debt securities at a particular moment in time, and over time, is of strong analytical value (*External Debt Statistics: Guide for Compilers and Users, 2013 (EDS Guide)*, para. 7.55). In addition, statistics on debt securities at nominal

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<sup>2</sup> Note that face value is not the same as nominal values as explained in *BPM6*, para. 3.88, and the *System of National Accounts, 2008 (2008 SNA)*, para. 3.157.

value can be helpful for comparison of a range of relevant developments within the IIP, including analysis of the source of changes (exchange rate movements, price changes and other adjustments).

3. **Macroeconomic statistics on holdings of securities, such as cross-border investments in debt securities by investor country, are compiled using market values, but liabilities of the issuer may be presented using nominal valuation, for example in the country's external debt.** This is usually the case for countries that rely on issuer's accounting data as a source of data and do not adjust for effects of market valuation. Other countries' data may be used to derive alternative (market) valuation of securities recorded in external debt. However, there is an open question as to whether nominal valuation of debt securities has strong analytical value for both assets and liabilities. As mentioned above, nominal value is particularly relevant from the debtor perspective, and therefore some take the view that nominal value is mostly relevant for liabilities in debt securities (this is the emphasis in several manuals, for instance in *HSS*, para. 5.40 and 5.53). Others point to the potential for financial positions of sectors and countries to be strongly influenced by the method of valuation of the assets in debt securities, and therefore nominal value data are also valuable for assets. This aspect is dealt with later in the Guidance Note, when the options are considered, and for now the terms 'stocks' and 'positions' are used without deciding on this choice.

4. **The main question to be addressed in this guidance note is whether there should be an explicit guidance in the SNA and BPM to compile stocks of debt securities at nominal value (either debt securities held across borders or all debt securities), supplementing the existing compilation of debt securities at market value.** Although the *BPM6* (para. 7.30) already encourages the compilation of the nominal value as a supplementary item for debt securities, it may be worth considering placing greater emphasis on it. A possibility would be to present a supplementary table to contain nominal figures and a reconciliation between nominal and market values.

5. **As background, it is helpful to note that nominal valuation is used for positions in currency and deposits and in nonnegotiable instruments, namely loans and other accounts receivable/payable (see *BPM6*, para. 7.40–7.44 and *2008 SNA*, para. 13.57, 13.66, and 13.84).** However, when transactions in these instruments do occur, they are valued at market prices (see *BPM6*, para. 8.12), with transaction prices often being less than the nominal values, because the market price takes into account liquidity factors and changes in the interest rate environment as well as changes in default risk (the latter two effects symmetric). To account for the difference between the market valuation of transactions and nominal valuation of positions, the seller records other price changes during the period in which the sale occurs, equal to the difference between the nominal and the transaction value and the buyer records an opposite amount as other price changes (*BPM6*, para. 9.33).

#### ***Current International Standards to Treat the Issue***

6. **Market prices refer to current exchange value, that is, the values at which goods and other assets, services, and labors are exchanged or else could be exchanged for cash.** Market prices are the general basis for valuation in the international accounts (*BPM6*, para. 3.67) and in the national accounts (*2008 SNA*, para. 2.60). The *2008 SNA* (para. 3.157b) describes nominal value as "the amount the debtor owes to the creditor, which comprises the outstanding principal amount including any accrued interest". The *BPM6* further clarifies that the nominal value reflects the sum of funds originally advanced, plus any subsequent advances, plus any interest that has accrued, less any repayments (which includes any payments covering accrued interest). Nominal value in domestic currency of a debt instrument

denominated in foreign currency also includes holding gains or losses arising from exchange rate changes (*BPM6*, para. 3.88 (b)).

7. **Whereas the basic valuation method for debt securities is the market value, the nominal value is also recommended as a standard or supplementary item in several manuals.** The *HSS* underscores the usefulness of additional data on nominal value of liability positions in the form of debt securities. It recommends that debt securities be presented at market value and that liability positions also be expressed in nominal value. Both values provide useful information from the perspective of monetary policy, fiscal policy, and financial stability analysis. Whereas debt securities issued should be recorded at both market and nominal value, debt securities holdings should be recorded at market value (*HSS*, para. 5.40–5.42).

8. **The *BPM6* encourages the nominal value for debt securities as a supplementary item, and the *EDS Guide* recommends that both valuations be used.** Similarly, the *Government Finance Statistics Manual 2014 (GFSM 2014)* and the *PSDSG* recommend that debt instruments should be valued at nominal value, while debt securities should be valued at market value as well. Debt securities traded (or tradable) in organized and other financial markets—such as bills, bonds, debentures, negotiable certificates of deposits, asset-backed securities, etc.—should be valued at market value and, in the case of liabilities, at nominal value as well (*GFSM 2014*, para. 7.27–7.241). Finally, the *Monetary and Financial Statistics Manual and Compilation Guide (MFSMCG)* (para. 5.106) also indicates that nominal value is recommended as a memorandum item for debt security liabilities to support consistency with debt measures (and makes reference to the *EDS Guide* and the *PSDSG*). It further clarifies that whereas the valuation method for debt securities is the market value, the nominal value of debt securities is an analytically useful measure of the legal liability from the viewpoint of the debtor, because this is the amount that the debtor owes to the creditors at any one moment (*MFSMCG* para. 5.121).

#### **Concerns/Shortcomings in the Current Standards**

9. **The basic valuation method for debt securities is the market value as stated in the 2008 SNA and the *BPM6*.** The nominal value is encouraged to be shown as a supplementary item in the *BPM6*, and the *HSS* and *EDS Guide* recommend that both valuations be used. On the other hand, the *2008 SNA* acknowledges that debt securities have a current market value as well as a nominal value, and for some purposes supplementary data on the nominal values of positions of debt securities may be useful (*2008 SNA*, para. 3.155). However, the *SNA* does not provide a clear definition of nominal value as in the *BPM6*, para. 3.88 (b).

10. **The *EDS Guide* (para. 15.18) underscores that the method of valuing financial assets and liabilities might depend on the focus of the analysis.** It recommends that debt instruments are valued at the reference date at nominal value, and for debt securities, at market value as well. The debtor will be interested in the nominal value of its debt because applying nominal values, for example, might help identify the debtor's maximum exposure which can be used to assess liquidity risk. Also, the debtor is well advised to monitor the market value of its debt. The market value and the spreads over interest rates on "risk-free" instruments provide an indication to the borrower of the market view on its ability to meet debt obligations as well as current market sentiment toward it. This is important information because it might influence future borrowing plans: whether it is advantageous to borrow again while terms seem good, or whether there are early warning signs of possible increased costs of borrowing, or even refinancing difficulties. However, for those countries with debt that has a very low valuation or is traded in markets

with low liquidity (or both), a sudden swing in sentiment might cause a very sharp change in the market value of external debt, which might also be reversed suddenly. Because it would be unaffected by such swings, information on the nominal value of external debt would be of particular analytical value in such circumstances.

11. **To fully articulate the *EDS Guide*'s recommendation on the valuation basis, debt securities data should be valued in memorandum items to Table 4.1, either at market value if they are presented at nominal value in the table or at nominal value if they are presented at market value in the table (para. 4.5).** Nevertheless, most economies disseminate debt securities data only on a single valuation basis (either nominal or market value basis—see the World Bank's Quarterly External Debt Statistics Database). Thus, inconsistencies may arise in macroeconomic analysis and cross-country data comparisons on external debt.

#### ISSUES FOR DISCUSSION

12. **The *BPM6* and the *2008 SNA* already mention the possibility of disclosing nominal values of debt securities as supplementary statistics.** However, the guidance is weakly phrased; there is no description of the way in which such supplementary statistics could be presented (no table design for example), and the manuals could be more detailed in covering the potential complexities of calculating nominal values for some forms of debt securities.<sup>3</sup> Two options were considered:

- Option 1—do nothing and leave nominal value for debt securities as currently (weakly) mentioned in *SNA* and *BPM*, relying on existing guidance in other manuals (such as the *EDS Guide*, the *HSS*, and the *PSDSG*) and (for European countries) the stronger references to nominal value in the *ESA 2010* (para. 7.39). Some countries may choose to publish these data, but the content and format may differ between countries, and between national accounts and external sector statistics publications.
- Option 2—use the existing guidance presented in the *EDS Guide*, supplemented by materials from other manuals, as a possible way forward for strengthening the available information on nominal value for analytical purposes. Within this option, a decision will need to be taken on whether to cover both assets and liabilities at nominal value, or whether to concentrate on nominal value of liabilities.

## SECTION II: OUTCOMES

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13. **The members of the IMF Committee on Balance of Payments Statistics (Committee) strongly supported the recommended Option 2 to strengthen the existing guidance in the *BPM6* and the *2008 SNA* for presenting statistics on stocks of debt securities at nominal value at the Committee's October 2020 meeting.** The existing guidance presented in the *EDS Guide* already

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<sup>3</sup> The practical aspects of compilation of stocks of debt securities at nominal value are not covered in this note. Many aspects of practical compilation are similar to compilation at market values (for example, hybrid instruments or those with unusual terms), however nominal valuation can raise other aspects with regard to data sources and isolating accrued interest, notably in explaining its relation to amortized cost which is the basis of recording in financial statements for debt securities held to maturity.

provides the basis for the way forward by strengthening the available information for analytical purposes. This guidance is supplemented and reinforced by other manuals and guides such as the *HSS*, the *MFSMCG*, the *GFSM 2014*, and the *PSDSG*.

14. **It was agreed to adopt a supplementary table in *BPM7* (see Table 1 in Annex I) similar to the one presented in the *EDS Guide*. For the 2008 SNA, similar tables also covering the domestic sectors could be adopted.** This would provide a framework for reconciling nominal and market valuation of debt securities included in the gross external debt position. Debt securities are presented in the table broken down by institutional sector and maturity. The table does not provide a complete breakdown of differences between nominal and market value (which some users may request) but remains at a higher level to reflect practical compilation challenges which might be anticipated in some countries.

15. **The proposed table could be included in the section “Additional Analytical Position Data” (pages 313–321 of the *BPM6*) along with tables for currency compositions, debt on a remaining maturity basis, and reserve-related liabilities (and other tables that might be added during this update process).** Within the 2008 SNA, the reconciliation tables could be added within Chapter 13 (Balance Sheets) and cross-linked with Chapter 26 (The Rest of the World Accounts and Links to the Balance of Payments).

16. **The proposed table should be compiled only for liabilities, given the higher analytical value in that case.** However, in cases where the data on debt security holdings at nominal value are relevant for the economy, the nominal value of the total amount of assets in debt securities may be included in the supplementary table, next to liabilities.

17. **Compilers could compile the data on debt securities used for intercompany lending at nominal value, either in the table (as a further breakdown) or as a supplementary item outside the table, in cases where the economy is heavily impacted by foreign direct investment** (the table in the *EDS Guide* does not include securities that may be included in direct investment (intercompany lending)). The rationale for this is that cross-border direct investment positions have continued to expand since the global financial crisis, unlike positions in portfolio and other investments. The operations of multinational enterprises (MNEs) are increasingly impacting the financial accounts, often involving the use of special purpose entities (SPEs) to channel investments. In this context, it is important to pay special attention to MNEs with large and growing intragroup flows and show assets and intra-group positions, with the goal of better understanding cross-border financial linkages and investor exposures. The weight of MNEs in some economies is substantial.

18. **It is recommended that the definition of nominal value in the *BPM6*, para. 3.88 (b) is adopted by the SNA for the sake of clarity and consistency.** It is also advisable to add in the SNA and BPM further clarification on the relationship between nominal value and market value to enhance the analytical value of the supplementary table, in line with the guidance already existing in the *HSS*, para. A1.5 (Market value = Nominal value + Cumulative revaluations arising from market price changes). At the same time, it is recommended that the manuals avoid referring to nominal value in a way that might contradict the definition in the *BPM6*, para. 3.88 (b) (as currently done for instance in *BPM6*, para. 3.88 itself: “the outstanding amount the debtor owes to the creditor”). Instead, it is suggested that clarification on its calculation be included in line with the following sentence in the *EDS Guide*, para. 2.34: “the nominal value of a debt instrument can be calculated by discounting future interest and principal payments at the existing contractual interest rate(s)”.

### Annex I. Table on Gross External Debt Position

**Table 1. Gross External Debt Position: Debt Securities — Reconciliation of Nominal and Market Value**

	Nominal Value Position at End of Period	Difference with Market value	Market Value Position at End of Period
<b>General Government</b>			
Short-term			
Long-term			
<b>Central Bank</b>			
Short-term			
Long-term			
<b>Deposit-Taking Corporations, except the Central Bank</b>			
Short-term			
Long-term			
<b>Other Sectors</b>			
Short-term			
Long-term			
<b>Other Financial Corporations</b>			
Short-term			
Long-term			
<b>Nonfinancial Corporations</b>			
Short-term			
Long-term			
<b>Households and non- profit institutions serving households (NPISHs)</b>			
Short-term			
Long-term			
<b>Total</b>			
Short-term			
Long-term			



## Annex II. Methodological References

### BPM6

**para. 3.67** Market prices refer to current exchange value, that is, the values at which goods and other assets, services, and labors are exchanged or else could be exchanged for cash. Market prices are the basis for valuation in the international accounts.

**para. 3.84** Positions of financial assets and liabilities should, in general, be valued as if they were acquired in market transactions on the balance sheet reporting date. Many financial assets are traded in markets on a regular basis and therefore can be valued by directly using the price quotations from these markets. If the financial markets are closed on the balance sheet date, the market prices that should be used in the valuation are those that prevailed on the closest preceding date when the markets were open. Debt securities have a current market value as well as a nominal value, and for some purposes, supplementary data on the nominal values of positions of debt securities may be useful (see paragraph 3.88 for definition of nominal value).

**para. 3.88 (b)** Nominal value refers to the outstanding amount the debtor owes to the creditor, which is composed of the outstanding principal amount including any accrued interest. So the nominal value reflects the sum of funds originally advanced, plus any subsequent advances, plus any interest that has accrued, less any repayments (which includes any payments covering interest accrual).<sup>4</sup> Nominal value in domestic currency of a debt instrument denominated in foreign currency also includes holding gains or losses arising from exchange rate changes.

<sup>4</sup> For debt instruments indexed to a “narrow” index, the nominal value can also include holding gains and losses arising from movements in the index (see paragraph 11.61(b)). For further detail on nominal value, see *External Debt Statistics: Guide for Compilers and Users*.

**para. 7.30** Whereas the basic valuation method for debt securities is the market value, the nominal value is encouraged as a supplementary item. *External Debt Statistics: Guide for Compilers and Users* recommends that both valuations be used. The nominal value of debt securities is a useful measure of value from the viewpoint of the debtor, because at any moment, it is the amount that the debtor owes to the creditors.

**para. 9.33** Nominal valuation is used for positions in nonnegotiable instruments, namely loans, deposits, and other accounts receivable/payable (see paragraphs 7.40–7.44). However, when transactions in these instruments do occur, they are valued at market prices (see paragraph 8.12), with transaction prices often being less than the nominal values, because the market price takes account of the possibility of default. To account for the inconsistency between the market valuation of transactions and nominal valuation of positions, the seller records other price changes during the period in which the sale occurs, equal to the difference between the nominal and the transaction value and the buyer records an opposite amount as other price changes.

### EXTERNAL DEBT STATISTICS: GUIDE FOR COMPILERS AND USERS

**para. 2.33** The Guide recommends that debt instruments are valued at the reference date at nominal value, and, for debt securities, at market value as well.<sup>17</sup> The nominal value of a debt instrument is a measure of value from the viewpoint of the debtor because at any moment in time it is the amount that the debtor owes to the creditor. This value is typically established by reference to the terms of a contract between the debtor

and creditor, and it is frequently used to construct debt ratios, such as those described in Chapter 14. The market value of a debt security is determined by its prevailing market price, which, as the best indication of the value that economic agents currently attribute to specific financial claims, provides a measure of the opportunity cost to both the debtor and the creditor.<sup>18</sup> It is the valuation principle adopted in the *BPM6* and *2008 SNA*. Box 2.2 presents a comparison matrix of the valuation methods.

<sup>17</sup> *Valuation principles of financial assets and liabilities are discussed in detail in the BPM6, Chapter 3, and the 2008 SNA, Chapter 3.*

<sup>18</sup> *In the HIPC Initiative (see Appendix 5), a representative market rate is used to discount future payments. This provides another measure of opportunity cost and is specific to countries in that program.*

**para. 2.34** Nominal value is the amount the debtor owes to the creditor, which comprises the outstanding principal amount, including any accrued interest. So the nominal value of a debt instrument reflects the value of the debt at creation plus any subsequent economic flows, such as transactions (e.g., repayment of principal), valuation changes (including exchange rate and other valuation changes other than market price changes), and any other changes. Conceptually, the nominal value of a debt instrument can also be calculated by discounting future interest and principal payments at the existing contractual<sup>19</sup> interest rate(s)<sup>20</sup> on the instrument; these interest rates may be fixed rate or variable rate. For fixed-interest rate debt instruments and debt instruments with contractually predetermined interest rates, this principle is straightforward to apply because the future payment schedule and the rate(s) to apply are known,<sup>21</sup> but it is less straightforward to apply to debt instruments with variable interest rates that change with market conditions. The appendix at the end of this chapter provides examples of calculating the nominal value of a debt instrument by discounting future payments of interest and principal.

<sup>19</sup> *Conceptually, the discount rate for debt instruments issued at a discount to the redemption value (such as deep-discount and zero-coupon bonds) should be that one at which the present value of future interest and principal payments equals the issue price of the bond, i.e., the yield on the security at issuance (the original yield-to-maturity rate) that is used to calculate the amount of accrued interest in each period (see the appendix at the end of this chapter).*

<sup>20</sup> *A single rate is usually used to discount payments due in all future periods. In some circumstances, using different rates for the various future payments may be warranted. Even if a single rate of discount is used, dependent on the time until due, a different discount factor applies to each payment, e.g., at a rate of discount of 10 percent, the discount factor for payments one year hence is 0.909 (or  $1/(1 + 0.1)$ ) and for payments two years hence is 0.826 (or  $1/(1 + 0.1)^2$ ), and so on. See also the example in Table 2.1.*

<sup>21</sup> *For a debt liability on which the interest rate steps up or down by contractually predetermined amounts over its life, the time profile of the discount factors to be applied to future payments would be nonlinear, reflecting these step changes.*

## Box 2.2 Valuation: Comparison Matrix

Valuation	Definition	Comments
Nominal value	Outstanding principal amount, including interest accrued	Contractual interest rate. For deep-discount bonds and zero-coupon bonds, the outstanding principal amount increases in value over time by the implicit yield (interest rate) on the debt instrument at issuance, derived from the difference between the issue price and the redemption price.
Face value	Undiscounted amount of principal to be repaid	The face value may include interest costs that have not yet accrued, which is counter to the accrual principle.
Market value	Amount that willing buyers pay to acquire something from willing sellers	Before maturity, the market value of a debt instrument may be greater or less than the face value. As debt instruments approach maturity, market approaches face value.
Fair value	Amounts for which a financial asset could be exchanged, or a liability settled, between knowledgeable, willing parties in an arm's-length transaction.	Approximate to market value. Valuation according to the market-value equivalent is needed for valuing financial assets and liabilities that are not traded in financial markets or that are traded only infrequently.

**para. 2.40** For some debt instruments, such as loans, the use of nominal values is partially influenced by pragmatic concerns about data availability and the need to maintain symmetry between debtors and creditors. In addition, because loans are not intended for negotiability, without an active market, estimating a market price can be somewhat subjective. Nominal value is also analytically useful because it shows actual legal liability and the starting point of creditor recovery behavior. In some instances, loans may be traded, often at discount, or a fair value may exist or would be possible to estimate. Loans that have become negotiable de facto should be reclassified under debt securities.

**para. 2.48** The Guide recommends that debt securities be valued at both nominal and market value.<sup>25</sup> For a debt security, both nominal and market value can be determined from the value at creation and subsequent economic flows, except that market valuation takes account of any changes in the market price of the instrument, whereas nominal value does not.

<sup>25</sup> *This includes debt securities acquired under reverse transactions (see Table 4.6).*

**para. 2.49** For debt securities for which the market price is not readily observable, by using a market rate of interest the present value of the expected stream of future payments associated with the security can be used to estimate market value. This and other methods of estimating market value are explained in Box 2.3. For unlisted securities, the price reported for accounting or regulatory purposes might be used, although this method is less preferable than those mentioned above. Similarly, for deep-discount or zero-coupon bonds, the issue price plus amortization of the discount could be used in the absence of a market price.

**para. 2.50** If arrears are traded on secondary markets, as sometimes occurs, then a separate market value could be established.

**para. 2.51** When securities are quoted on markets with a buy-sell spread, the midpoint should be used to value the instrument. The spread is an implicit service of the dealer, paid by buyers and sellers.

**para. 4.5** This Guide recommends that both nominal and market values be provided for debt securities (see paragraph 2.33). Nevertheless, most economies disseminate debt securities data only on a single valuation basis (either nominal or market value basis). As a consequence, inconsistencies may arise in macroeconomic analysis and cross-country data comparisons on external debt. To fully articulate the Guide’s recommendation on the valuation basis, debt securities data should be valued in memorandum items to Table 4.1, either at market value if they are presented at nominal value in the table or at nominal value if they are presented at market value in the table.<sup>5</sup>

<sup>5</sup> *Debt securities in the memorandum items to Table 4.1 do not include those that may be included in Direct investment: Intercompany lending. However, if significant, additional information on these securities at both nominal and market value could be provided.*

Table 4.1 (Continued)		Table 4.1 (Concluded)	
	End Period		End Period
Memorandum Items		Debt Securities: By Sector, continued	
Debt Securities: By Sector <sup>4</sup>		Other financial corporations	
General Government		Short-term	
Short-term		Long-term	
Long-term		Nonfinancial corporations	
Central Bank		Short-term	
Short-term		Long-term	
Long-term		Households and nonprofit institutions serving households (NPISHs)	
Deposit-Taking Corporations, except the Central Bank		Short-term	
Short-term		Long-term	
Long-term			
Other Sectors			
Short-term			
Long-term			

<sup>4</sup> *Debt securities are valued at market value if they are presented at nominal value in the table, or at nominal value if they are presented at market value in the table. Debt securities in the memorandum items do not include those that may be included in Direct investment: Intercompany lending.*

**para. 7.54** The Guide recommends that debt securities be valued in the gross external debt position at nominal and market value. While the market value takes into account fluctuations in market prices, the nominal value does not. Market prices change over time for a number of reasons, including changes in market interest rates, changes in investor perception of the creditworthiness of the debtor, and changes in market structure (such as might affect market liquidity).

**para. 7.55** The divergence in the market and nominal value of debt securities at one moment in time, and over time, is of analytical value. For this reason, Table 7.16 provides a framework for reconciling nominal and market valuation of debt securities included in the gross external debt position. Debt securities are presented in the table broken down by institutional sector and maturity. It is intended that data be presented in absolute amounts in the same unit of account used to present the gross external debt position.

**Table 7.16 Gross External Debt Position: Debt Securities—Reconciliation of Nominal and Market Value**

	Nominal Value Position at End of Period <sup>1</sup>	Difference with Market Value	Market Value Position at End of Period <sup>1</sup>
<b>General Government</b>			
Short-term			
Long-term			
<b>Central Bank</b>			
Short-term			
Long-term			
<b>Deposit-Taking Corporations, except the Central Bank</b>			
Short-term			
Long-term			
<b>Other Sectors</b>			
Short-term			
Long-term			
<b>Other financial corporations</b>			
Short-term			
Long-term			
<b>Nonfinancial corporations</b>			
Short-term			
Long-term			
<b>Households and non-profit institutions serving households (NPISHs)</b>			
Short-term			
Long-term			
<b>Total</b>			
Short-term			
Long-term			

<sup>1</sup> Arrears (if applicable) are included in the original debt instrument.

**para. 15.18** The method of valuing financial assets and liabilities might depend on the focus of the analysis. The *Guide* recommends that debt instruments are valued at the reference date at nominal value, and for debt securities, at market value as well. The debtor will be interested in the nominal value of its debt because at any moment in time it is the amount that the debtor owes to the creditor at that moment, e.g., applying nominal values might help identify maximum exposure which can be used to assess liquidity risk. Also, the debtor is well advised to monitor the market value of its debt. The market value and the spreads over interest rates on “risk-free” instruments provide an indication to the borrower of the market view on its ability to meet debt obligations as well as current market sentiment toward it.<sup>11</sup> This is important information because it might influence future borrowing plans: whether it is advantageous to borrow again while terms seem good, or whether there are early warning signs of possible increased costs of borrowing, or even refinancing difficulties. However, for those countries with debt that has a very low valuation or is traded in

markets with low liquidity (or both), a sudden swing in sentiment might cause a very sharp change in the market value of external debt, which might also be reversed suddenly. Because it would be unaffected by such swings, information on the nominal value of external debt would be of particular analytical value in such circumstances.

*<sup>11</sup> Increasingly, information from credit derivatives, such as default swaps and spread options, also provides market information on an entity's credit standing.*

## **2008 SNA**

**para. 3.155** Debt securities have a current market value as well as a nominal value, and for some purposes supplementary data on the nominal values of positions of debt securities may be useful.

**para. 13.58** Short-term securities, and the corresponding liabilities, are to be valued at their current market values. Such a valuation is particularly important under conditions of high inflation or high nominal interest rates.

**para. 13.59** Long-term securities should always be valued at their current prices on markets, whether they are bonds on which regular payments of interest are paid or deep-discounted or zero-coupon bonds on which little or no interest is paid. The price should always be that including accrued interest (the so-called "dirty" price). Although the nominal liability of the issuer of a long-term security may be fixed in money terms, the market prices at which fixed interest securities are traded may vary considerably in response to variations in general market rates of interest. As the issuer of a long term security usually has the opportunity to refinance the debt by repurchasing the security on the market, valuation at market prices is generally appropriate for both issuers and holders of long-term securities, especially financial transactors who actively manage their assets or liabilities.

**para. 13.60** An index-linked debt security is also valued at its market price in the balance sheet whatever the nature of the index to which the security is linked.

**para. 13.61** If both the principal and coupons of a debt instrument are indexed to a foreign currency, the security should be treated as if it is denominated in that foreign currency with conversion to domestic currency at the mid-point of the rates prevailing on the date of the balance sheet.

## **HANDBOOK ON SECURITIES STATISTICS (HSS)**

**para. 5.40** (...) this Handbook recommends that debt securities be presented at market value and that liability positions also be expressed in nominal value, although not transactions; (para. 5.41) It means that debt securities issues should be recorded at both market and nominal value. Both values provide useful information from the perspective of monetary policy, fiscal policy, and financial stability analysis.

Whereas debt securities issues should be recorded at both market and nominal value, debt securities holdings should be recorded at market value. (*HSS*, para. 5.40-5.42).

Annex 1 illustrates the relationship between market value and nominal value for positions in debt securities and the recording of the accrual and payment of interest for different types of debt securities.

## **GOVERNMENT FINANCE STATISTICS MANUAL (GFSM) AND PUBLIC SECTOR DEBT STATISTICS (PSDS)**

Similarly, the *GFSM* and the *PSDS Guide* recommend that debt instruments should be valued at nominal value, while debt securities should be valued at market value as well. Debt securities traded (or tradable) in organized and other financial markets—such as bills, bonds, debentures, negotiable certificates of deposits, asset-backed securities, etc.—should be valued at market value and, in the case of liabilities, at nominal value as well (*GFSM*, para. 7.27–7.241).

## **THE MONETARY AND FINANCIAL STATISTICS MANUAL AND COMPILATION GUIDE (MFSMCG)**

It also provides information in this area (para. 5.103 – 5.121). Moreover, in para. 5.106 also indicates that nominal value is recommended as a memorandum item for debt security liabilities to support consistency with debt measures (and makes reference to the *EDS* and *PSDS Guides*).

## **ESA 2010**

**para. 7.39** Nominal valuation reflects the sum of funds originally advanced, plus any subsequent advances, less any repayments, plus any accrued interest. Nominal value is not the same as face value.

(a) The nominal value in domestic currency of a financial instrument denominated in foreign currency includes holdings gains or losses arising from movements in exchange rates.

The value of financial instruments denominated in foreign currency should be converted into the national currency at the market exchange rate prevailing on the date to which the balance sheet relates. This rate should be the mid-point between the buying and the selling spot rates for currency transactions.

(b) For financial instruments like debt securities linked to a narrow index, the nominal value can also include holding gains or losses arising from movements in the index.

(c) At any specific point in time, the market value of a financial instrument may deviate from its nominal value due to revaluations arising from market price changes. Movements in market prices arise from general market conditions, such as changes in the market rate of interest, specific circumstances, such as changes in the perceived creditworthiness of the issuer of a debt security, and changes in general market liquidity and in market liquidity that is specific to that debt security.

(d) Thus, the following basic equation applies to positions: market value = nominal value + revaluations arising from market price changes.