



Appendix 4. External Debt Statistics, International Investment Position, and National Accounts

1. In the *Guide*, linkages between external debt statistics, the international investment position (IIP), and the national accounts have been developed and explained. This appendix further explains the relationship between external debt statistics and the IIP (within external sector statistics), and between the national accounts and the IIP, such that data on the IIP can be incorporated into the external account components of the rest of the world account of the national accounts system, bringing compilation and collection efficiency gains as well as analytical benefits.

The Link between External Debt Statistics and the IIP

2. The *BPM6* gives increased emphasis to the IIP statistics in international accounts compilation and analysis. As mentioned in Chapter 4, provided that debt securities are valued at market value, the gross external debt position, as presented in the *Guide*, equals the debt liabilities in the IIP statement, i.e., the gross external debt position equals total IIP liabilities excluding all equity (equity shares and other equity) and investment fund shares and financial derivatives and employee stock options (ESOs), allowing comparability across datasets. Table A4.1 provides a summary presentation of the IIP that facilitates the identification of debt liabilities covered, and the corresponding items in the gross external debt position (as presented in Table 4.1).¹ The columns show the breakdown of the IIP by institutional sector, and the assets and liabilities by functional category are shown in the rows, with debt instruments separately identified in the liabilities section of the table (shaded areas

in the table do not cover debt liabilities). The last column identifies the debt item as shown in the gross external debt position (Table 4.1).

3. In the IIP, 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 (*BPM6*, paragraph 3.84). Whereas the basic valuation method for debt securities is the market value, the nominal value is encouraged as a supplementary item (*BPM6*, paragraph 7.30). The *Guide* recommends that debt instruments be valued at the reference date at nominal value, and, for debt securities, at market value as well. For instance, Table 4.1 provides information on both values for debt securities. In addition, Table 7.16 provides a framework for reconciling nominal and market valuation of debt securities included in the gross external debt position. Nonnegotiable instruments include loans, deposits, and other accounts receivable/payable, and the primary valuation for positions in these instruments is nominal value in both datasets—IIP and external debt statistics. Therefore, data consistency between debt instruments (liabilities) recorded in the IIP and in the gross external debt position can be ensured.

4. As discussed in Chapter 15, the financial structure of economies—the composition and size of the liabilities and assets on the economy’s financial balance sheet—has been an important source of vulnerability. Data series described and presented in Part I of the *Guide*—notably sector, currency and maturity breakdown of external debt data—facilitate the examination of potential vulnerabilities of balance sheets of key sectors of an economy. To support this type of analysis, a currency composition and remaining maturity analysis of the IIP is also additional information in the *BPM6*: memorandum and supplementary

¹ Table 4.1 is expository; for standard components of the IIP see Chapter 3 and *BPM6*, Appendix 9.

Table A4.1 International Investment Position and External Debt Statistics							
	Central Bank	Deposit-Taking Corporations, except the Central Bank	General Government	Other Sectors		IIP	EDS Corresponding Item
				Other financial corporations	Nonfinancial corporations, Households, and NPISHs		
Assets							
By functional category							
Direct Investment							
Portfolio Investment							
Financial Derivatives (other than reserves) and ESOs							
Other Investment							
Reserve Assets							
Total Assets							
Liabilities							
By functional category							
Direct Investment							
Equity and investment fund shares							
Debt Instruments ¹							DI: Intercompany Lending
Portfolio Investment							
Equity and investment fund shares							
Debt Securities							Debt securities
Financial Derivatives (other than reserves) and ESOs							
Other Investment							
Other equity							
Debt instruments							
SDRs		NA		NA	NA		SDRs (allocations)
Currency and Deposits							Currency and Deposits
Loans							Loans
Insurance, pension, standardized guarantee schemes							Other debt liabilities
Other accounts receivable/payable							
Trade credit and advances							Trade credit and advances
Other accounts receivable/payable - other							Other debt liabilities
Total Liabilities							
of which: Total debt instruments							Gross external debt position
Net IIP							
of which: Net debt instruments							Net external debt

¹ In the IIP standard components, debt instruments classified as direct investment are not required to be presented broken down by type of instrument. Debt securities may be separately compiled as a supplementary item.

Note: shaded areas do not cover debt liabilities. NA = Not Applicable.

tables to the standard components of the IIP respectively provide a presentation of currency composition of assets and liabilities and of remaining maturity of long-term debt liabilities, with a breakdown by sector.² These definitions and tables are consistent with the presentation adopted in the *Guide*.

The Link Between the IIP and the National Accounts

5. As mentioned in the *BPM6*, Appendix 7, the international accounts are closely linked to the *System of National Accounts (SNA)* and there are many similarities in the underlying accounting system. The *SNA* records the exchanges between the domestic economy and the rest of the world as if the rest of the world were a distinct institutional sector of the economy. From this perspective, the international accounts mirror the rest of the world sector, recording the exchanges (flows and positions) of all resident units with the nonresident units from the domestic economy perspective.

Financial Accounts and Balance Sheets in the SNA

6. The financial account records transactions that involve financial assets and liabilities and that take place between resident institutional units and between resident institutional units and the rest of the world. The left-hand side of the account—as presented in the *SNA*—records acquisitions of financial assets less disposals, while the right-hand side records incurrence of liabilities less their repayment.³

7. The financial account is the final account in the full sequence of accounts that records transactions between institutional units. Net saving is the balancing item of the use of income accounts, and net saving plus net capital transfers receivable or payable can be used to accumulate nonfinancial assets. If they are not exhausted in this way, the resulting surplus is called net lending. Alternatively, if net saving and capital transfers are not sufficient to cover the net accumulation of nonfinancial assets, the resulting deficit is called net borrowing.

8. The key features of financial accounts are that (1) they identify the liabilities that institutional sectors use to finance their deficits, and the financial assets that institutional sectors use to allocate their surpluses; (2) they facilitate analysis of the flow of funds between different institutional sectors of the economy; (3) they place emphasis on stock variables such as financial assets and debt; and (4) they are developed from detailed information on the various institutional sectors and their activities in financial assets/liabilities.

9. Assets, both nonfinancial and financial, and liabilities can be aggregated across all types so as to show the total value of assets less liabilities, or net worth, of an institutional unit or group of units.⁴ Tables describing this sort of aggregation are called balance sheets. A balance sheet may be drawn up for institutional units, institutional sectors and the total economy.⁵ A similar account is drawn up showing the stock levels of assets and liabilities originating in the total economy held by nonresidents and of foreign assets and liabilities held by residents. In the *BPM6* this account is called the IIP but is drawn up from the point of view of residents whereas in the *SNA* it is drawn up from the point of view of the rest of the world with the rest of the world being treated in the same way as domestic sectors (*2008 SNA*, paragraph 13.2). In this context, the balance sheet in the *SNA* measures the stocks of assets, both nonfinancial and financial, and liabilities aggregated across all types and institutional sectors⁶ so as to derive at the end the net worth by institutional sector and total economy.

10. Net worth is defined as the value of all the assets owned by an institutional unit or sector less the value of all its outstanding liabilities. For the economy as a whole, the balance sheet shows the sum of non-financial assets and net claims on the rest of the world. This sum is often referred to as national wealth (*2008 SNA*, paragraph 13.4).

⁴See *2008 SNA*, Chapter 13.

⁵As well as drawing up a balance sheet showing the values of all assets held by an institutional unit, it is possible to draw up a similar account for the value of a single type of asset (or liability) held by all institutional units in the economy. This is called an asset account. A basic accounting identity links the opening balance sheet and the closing balance sheet for a given asset.

⁶In the *SNA*, among assets the rest of the world only has financial claims on the domestic economy.

²See *BPM6*, Appendix 9, “Additional Analytical Position Data.”

³See *2008 SNA*, Chapter 11.

11. The balance sheet completes the sequence of accounts, showing the ultimate result of the entries in the production, distribution and use of income, and accumulation accounts. The existence of a set of balance sheets integrated with the flow accounts encourages analysts to look more broadly when monitoring and assessing economic and financial conditions and behavior.

12. The balancing item on the balance sheets is net worth. For the IIP, it is the net IIP, which is mirrored by the net worth for the rest of the world sector. Unlike the *SNA's* balance sheets, the IIP covers only financial assets and liabilities. Nonfinancial assets are excluded as they do not have a counterpart liability or other international aspect.⁷ In the case of financial claims, the cross-border element arises when one party is a resident and the other party is a nonresident. In addition, while gold bullion is an asset that has no counterpart liability, it is included in the IIP when held as a reserve asset, because of its role as a means of international payments.

A Simplified Version of the Balance Sheet

13. The balance sheet records assets on the left-hand side and liabilities and net worth on the right-hand side, as do the accumulation accounts for changes in these items. A balance sheet relates to the values of assets and liabilities at a particular point in time. The *SNA* provides for balance sheets to be compiled at the beginning of the accounting period (with the same values as at the end of the preceding period) and at its end. The *SNA* then provides for a complete recording of the changes in the values of the various items in the balance sheet between the beginning and end of the accounting period to which the flow accounts of the *SNA* relate. Changes in net worth can thus be explained fully only by examining the changes in all the other items that make up the balance sheet (2008 *SNA*, paragraph 13.10). In Table A4.2, only the closing positions for a limited number of classes of assets are shown.

14. The economy consists of five resident sectors—nonfinancial and financial corporations, general government, households, and NPISH—all of which have relationships with the rest of the world sector. Table

A4.2 is a matrix of various balance sheets that shows nonfinancial as well as financial assets and liabilities by sector and instrument, e.g., households hold nonfinancial assets of 1545 as well as financial assets of 3465. For each financial asset/liability, the rows show total assets by sector, and the matching of liability positions. For each sector, the columns show financial assets owned or liabilities incurred, and also the net worth of the sector. The need for consistency among the rows and columns helps to minimize errors in the data.

15. Table A4.2 may be further simplified to show only the balance sheets of the total economy and the rest of the world sector. In Table A4.3, the net worth of the total economy—its national wealth, 5590—equals the sum of a country's nonfinancial assets—5103—plus its net financial claims on the rest of the world—487. In the balance sheet for the total economy, all financial assets and liabilities between residents are netted out in the consolidation to leave only the net financial assets position (positive or negative) on the rest of the world. For the rest of the world balance sheet, only financial assets and liabilities are shown, e.g., in the balance sheet figures, the value of financial assets of the domestic economy for currency and deposits is 1571 and of liabilities is 1573. This implies that the rest of the world has a net asset with the domestic economy of 2 for currency and deposits. Table A4.3 shows that the asset position of the rest of the world is 116 and the liability position 114. So in the IIP the domestic economy has a net liability position of 2 for currency and deposits.

A More Detailed Version of Balance Sheets

16. Financial accounts may be expanded into three dimensions to track each instrument category, the financial claims of each sector on each other sector. By indicating who has lent to whom and with what instrument, such a matrix lends considerable analytical power to financial accounts. As with the two-dimensional approach described above, the interlocking row and column constraints of the three dimensional matrix provide an important check on the consistency of data. This is because for each sector, each transaction involves at least, and usually, two balance sheet changes, and similarly for each party of the transaction, each transaction involves two balance sheet changes, e.g., the issue of a new debt security by a nonfinancial corporation that is purchased by a nonresident results

⁷In the case where they are part of the cross-border transactions, these exchanges are covered in the current account in the goods account.

Table A4.2. Simplified Version of Balance Sheet Accounts																
Assets						Liabilities and Net Worth										
Total	Rest of the world	Total economy	NPISHs	Households	General government	Financial corporations	Non-financial corporations	Stocks and balancing items	Non-financial corporations	Financial corporations	General government	Households	NPISHs	Total economy	Rest of the world	Total
5103		5103	170	1545	846	91	2451	Nonfinancial assets								
3112		3112	131	923	526	63	1469	Produced non-financial assets								
2825		2825	128	766	490	50	1391	Fixed assets								
146		146	1	52	23	0	70	Inventories								
141		141	2	105	13	13	8	Valuables								
1991		1991	39	622	320	28	982	Non-produced non-financial assets								
1961		1961	39	621	312	24	965	Natural resources								
30		30	0	1	8	4	17	Contracts, leases and licenses								
0		0	0	0	0	0	0	Goodwill and marketing assets								
9613	859	8754	176	3465	387	3651	1075	Financial assets/liabilities							1346	9613
782	1	781	0	0	81	700	0	Monetary gold and SDRs							782	782
1687	116	1571	112	904	124	10	421	Currency and deposits ¹	40	1346	139	10	38	1573	114	1687
1527	138	1389	25	214	4	1046	100	Debt securities	51	1117	257	2	0	1427	100	1527
1536	74	1462	8	27	118	1240	69	Loans	918	0	337	180	49	1484	52	1536
3115	360	2755	23	1825	15	595	297	Equity and investment fund shares	2087	804	6	0	0	2897	218	3115
545	26	519	4	430	21	38	26	Insurance, pension, and standardized guarantee schemes	12	483	19	1	5	520	25	545
35	0	35	0	6	0	21	8	Financial derivatives and ESOs	7	18	0	0	0	25	10	35
386	144	242	4	59	24	1	154	Other accounts receivable/payable	263	0	31	12	35	341	45	386
								Net worth	148	-26	444	4805	219	5590	-487	5103

Source: BPM6, Chapter 2 and 2008 SNA, Chapter 13.

¹For the purpose of this table, the counterpart liability of "monetary gold and SDRs" holdings is fully shown, as a liability of the rest of the world, to derive the net financial claims of the rest of the world (-487) which mirrors the net IIP.

Table A4.3 Balance Sheet of the Total Economy and the Rest of the World

Assets			Liabilities and Net Worth	
Rest of the world	Total economy	Stocks and balancing items	Total economy	Rest of the world
	13857	Assets		
	5103	Nonfinancial assets		
	3112	Produced nonfinancial assets		
	2825	Fixed assets		
	146	Inventories		
	141	Valuables		
	1991	Non-produced nonfinancial assets		
	1961	Natural resources		
	30	Contracts, leases and licenses		
	0	Goodwill and marketing assets		
859	8754	Financial assets/liabilities	8267	1346
1	781	Monetary gold and SDRs ¹		782
116	1571	Currency and deposits	1573	114
138	1389	Debt securities	1427	100
74	1462	Loans	1484	52
360	2755	Equity and investment fund shares	2897	218
26	519	Insurance, pension, and standardized guarantee schemes	520	25
0	35	Financial derivatives and ESOs	25	10
144	242	Other accounts receivable/payable	341	45
		Net worth	5590	-487

Source: *BPM6*, Chapter 2 and *2008 SNA*, Chapter 13.

¹For the purpose of this table, the counterpart liability of "monetary gold and SDRs" holdings is fully shown, as a liability of the rest of the world, to derive the net financial claims of the rest of the world (-487) which mirrors the net IIP.

in the following entries: the nonfinancial corporation reports the increase in *debt securities* liabilities, and an increase in *currency and deposit* assets; while the non-resident reports an increase in *debt securities* assets, and a reduction in *currency and deposits* assets.

17. The full three-dimensional matrix is an important analytical tool but, because of the cost and/or the conceptual complexity, relatively few countries have full flow of funds data.⁸ Table 27.4 in the

⁸The flow of funds is a three dimensional presentation of financial statistics where both parties to a transaction as well as the nature of the financial instrument being transacted are elaborated. A similar three dimensional presentation is also presented in respect of the stocks of financial assets and liabilities where the creditor and debtor of each instrument are shown.

2008 SNA, not shown here, illustrates the type of detail that a country may wish to develop. This format facilitates the more detailed financial analysis just described by showing transactions in assets cross-classified by type of asset and by the debtor sector in the first part of the table, and the type of liability cross-classified by the creditor sector in a similar, second part. The sectors transacting in assets or liabilities form the columns of the table while the type of asset, disaggregated by sector of debtor (or creditor in the second part of the table), is shown in the rows. It is also instructive to compile exactly similar tables in terms of the stocks of financial assets and liabilities. Using both matrices, all assets, liabilities, and counterpart combinations can be found.

Comparison Summary of the Rest of the World Balance Sheet Account and the IIP Classification

18. Appendix 7 of *BPM6* makes a summary account of the complete concordance between the *SNA* and the *BPM6* in respect to residency, valuation, time of recording, conversion procedures and coverage of flows and stocks. Additionally, Chapter 2 of *BPM6*—Overview of the Framework—includes a separate annex (Annex 2.2) illustrating with a numeric example (1) the overview of the integrated economic accounts as presented in the 2008 *SNA* and (2) the links between the financial instruments and the functional categories including the conversion of data from instrument to functional category (Tables A4.2 and A4.3 above are based on this numerical example). Furthermore, BP and IIP standard components (see *BPM6*, Appendix 9) include the *SNA* codes, where appropriate, which facilitates comparison between the international accounts and the *SNA*.

19. The classification system of the *SNA* and *BPM6* employs consistent coverage and terminology. There is, however, a major presentational difference regarding the grouping of the financial assets and liabilities by functional categories as primary level of classification in the external accounts with impact on the financial account, the IIP and the investment income, and the use of the instruments and sectors by the *SNA* for the same categories.⁹ The functional categories are the primary classification used for each of financial transactions, positions, and income in the international accounts.

20. Five functional categories of investment are distinguished in the international accounts: (1) direct investment, (2) portfolio investment, (3) financial derivatives (other than reserves) and employee stock

options, (4) other investment, and (5) reserve assets. The functional categories are built on the classification of financial assets and liabilities, but with an additional dimension that takes into account some aspects of the relationship between the parties and the motivation for investment. However, data by functional category are further subdivided by instrument and institutional sector, which makes it possible to link them to the corresponding *SNA* and monetary and financial statistics items. Table A4.4 (Table 6.1 of *BPM6*) shows the linkages between the financial assets classification and the functional categories.¹⁰

21. Table A4.5 shows the 2008 *SNA* financial instruments classification and the correspondence of these instruments with *BPM6* broad categories: equity, debt instruments, and other financial assets and liabilities.¹¹ This correspondence makes it possible to link financial instruments in *SNA* and IIP with related debt liabilities covered in the gross external debt position; it also points out to the need for validation of the different datasets by their respective compilers, in particular when different source data are used for some of the items.

22. Other differences refer to the breakdown of the institutional sectors and their groupings. While consistent in coverage, the classification of institutional sectors differs according to the importance given to sectors and subsectors in the two datasets. Table A4.6 illustrates the correspondence between the two classification systems. For more details on the classifications and the correspondence between *SNA* and international accounts items see *BPM6*, Appendix 7 and selected tables in Chapter 2.

⁹In addition, the classification of services in the balance of payments is largely product-based, consistent with the Central Product Classification (CPC); it differs from the *SNA*, though, for a few products, n.i.e., travel, construction, and government goods and services n.i.e., are identified in *BPM6*, and are related to the provider/acquirer rather than product itself. To ensure consistency the *SNA* classifies by product (CPC) the goods and services included in these items in the balance of payments.

¹⁰As shown in Table A4.4, monetary gold consists of gold bullion and unallocated gold accounts. Gold bullion has no counterpart liability. However, the counterpart liability of unallocated gold accounts is in deposits (other investment). See Appendix 1, Gold Accounts: Allocated and Unallocated.

¹¹The *Guide* clarifies that monetary gold consists of gold bullion and unallocated gold accounts. Gold bullion has no counterpart liability; however, the counterpart liability of unallocated gold accounts is in deposits (see paragraph 7.51).

Table A4.4 Link between Financial Assets Classification and Functional Categories

2008 SNA Financial Assets and Liabilities Classification	Functional categories				
	DI	PI	FD	OI	RA
AF1 Monetary gold and SDRs					
AF11 Monetary gold:					
Gold bullion					X
Unallocated gold accounts					X
AF12 Special drawing rights				X ¹	X ¹
AF2 Currency and deposits:					
AF21 Currency				X	X
AF22 Transferable deposits					
AF221 Interbank positions				X	X
AF229 Other transferable deposits	X			X	X
AF29 Other deposits	X			X	X
AF3 Debt securities	X	X			X
AF4 Loans	X			X	X
AF5 Equity and investment fund shares:					
AF51 Equity					
AF511 Listed shares	X	X			X
AF512 Unlisted shares	X	X			x ²
AF519 Other equity	X			x	
AF52 Investment fund shares or units:					
AF521 Money market fund shares or units	x	X			X
AF522 Other investment fund shares or units	x	X		x	X
AF6 Insurance, pension, and standardized guarantee schemes:					
AF61 Nonlife insurance technical reserves	x			X	
AF62 Life insurance and annuity entitlements	x			X	
AF63 Pension entitlements				X	
AF64 Claims of pension funds on pension managers	X			X	
AF65 Entitlements to non-pension benefits				X	
AF66 Provisions for calls under standardized guarantees	X			X	
AF7 Financial derivatives and employee stock options					
AF71 Financial derivatives:					
AF711 Forward-type contracts			X		X
AF712 Options			X		X
AF72 Employee stock options			X		
AF8 Other accounts receivable/payable:					
AF81 Trade credit and advances	X			X	
AF89 Other accounts receivable/payable	X			X	

Source: *BPM6*, Table 6.1.

Note: DI = direct investment; PI = portfolio investment; FD = financial derivatives (other than reserves) and employee stock options; OI = other investment; RA = reserve assets.

X shows applicable functional categories (x shows cases considered to be relatively uncommon) for the most detailed instrument categories.

¹SDRs: Assets = Reserve assets; Liabilities = Other investment.

²Unlisted shares must be liquid, as stated in the *BPM6*, paragraph 6.87.

Table A4.5 2008 SNA Financial Instruments Classification (with Corresponding BPM6 Broad Categories) (Includes 2008 SNA codes)

2008 SNA Financial Assets and Liabilities Classification	Broad International Accounts Category (BPM6)
AF11 Monetary gold	
Gold bullion	}Other financial assets
Unallocated gold accounts	}Debt instruments
AF12 Special drawing rights	}Debt instruments
AF2 Currency and deposits	}Debt instruments
AF21 Currency	}
AF221 Interbank positions	}
AF229 Other transferable deposits	}
AF29 Other deposits	}
AF3 Debt securities	}Debt instruments
AF4 Loans	}Debt instruments
AF5 Equity and investment fund shares	}Equity
AF51 Equity	}
AF511 Listed shares	}
AF512 Unlisted shares	}
AF519 Other equity	}
AF52 Investment fund shares or units	}
AF521 Money market fund shares or units	}
AF522 Other investment fund shares or units	}
AF6 Insurance, pension, and standardized guarantee schemes	}Debt instruments
AF61 Nonlife insurance technical reserves	}
AF62 Life insurance and annuity entitlements	}
AF63 Pension entitlements	}
AF64 Claims of pension funds on pension managers	}
AF65 Entitlements to nonpension benefits	}
AF66 Provisions for calls under standardized guarantees	}
AF7 Financial derivatives and employee stock options	}Other financial assets
AF71 Financial derivatives	} and liabilities
AF711 Forward-type contracts	}
AF712 Options	}
AF72 Employee stock options	}
AF8 Other accounts receivable/payable	}Debt instruments
AF81 Trade credit and advances	}
AF89 Other accounts receivable/payable	}

Source: BPM6, Table 5.3.

**Table A4.6 Conversion—Institutional Sector Breakdown SNA—International Accounts
Sectors as they are in the 2008 SNA and BPM6**

2008 SNA		BPM6
Nonfinancial corporations	←	Central bank
Financial corporations	←	Deposit-taking corporations, except the central bank
Central bank	←	General government
Deposit-taking corporations, except the central bank	←	Other sectors
Money market funds	↔	Other financial corporations
Non MMF investment funds	↔	Money market funds
Other financial intermediaries except insurance corporations and pension funds	↔	Non MMF investment funds
Financial auxiliaries	↔	Other financial intermediaries except insurance corporations and pension funds
Captive financial institutions and money lenders	↔	Financial auxiliaries
Insurance corporations	↔	Captive financial institutions and money lenders
Pension funds	↔	Insurance corporations
General government	←	Pension funds
Households	↔	Nonfinancial corporations, households and NPISHs
Nonprofit institutions serving households	↔	Nonfinancial corporations
	↔	Households
	↔	Nonprofit institutions serving households

Source: *BPM6 Compilation Guide*, Appendix VI.A.