

APPENDIX VI: LINKAGES WITH OTHER MACROECONOMIC DATASETS

A. Linkages of the International Accounts with the National Accounts

Introduction

1. 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 stocks) of all resident units with the non-resident units from the domestic economy perspective.
2. 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 - Overview of the Framework – includes a separate annex (Annex 2.2) illustrating with a numeric example (i) the overview of the integrated economic accounts as presented in the *2008 SNA* and (ii) the links between the financial instruments and the functional categories including the conversion of data from instrument to functional category. Furthermore, standard components (Appendix 9) include the *SNA* codes, where appropriate, which facilitates comparison between the international accounts and the *SNA*.
3. This appendix is proposing to complement the text in *BPM6* with a presentation in parallel of the recording of various flows and stocks in the *SNA* vs. *BPM6* along the lines of the accounting structure of the two systems. The intention here is to illustrate the correspondence of indicators and the consistency between the two datasets. It is also to point out to the need for validation of the two datasets by their respective compilers, in particular when different source data are used for some of the indicators. Nevertheless, it is worth reiterating the common practice in many countries to have the balance of payments and IIP data compiled first and subsequently incorporated in the relevant components of the *SNA* rest of the world accounts.

Classification

4. 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 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. These aspects are illustrated in the presentation of the sequence of accounts. In 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, i.e., travel, construction, and government goods and services n.i.e., which are transactor-based (relating to the provider/acquirer rather than product itself). Other differences refer to the breakdown of the institutional sectors and their groupings. While consistent in coverage, the classification of institutional sectors differ according to the importance given to sectors and sub-sectors in the two datasets. Table below illustrates the correspondence between the two classification systems.

Table: Conversion--Sector Breakdown SNA-BOP

2008 SNA Classification of Institutional Sectors	BPM6 Classification of Institutional Sectors
S1 Total economy	
S2 Rest of the world	
<i>Breakdown by domestic sector:</i>	Central bank^a
S11 Nonfinancial corporations¹	Deposit-taking corporations except the central bank^a
S12 Financial corporations	General government
S121 Central bank ²	Other sectors
S122 Deposit-taking corporations, except the central bank ¹	Other financial corporations
S123 Money market funds (MMFs) ¹	Money market funds (MMFs) ^a
S124 Non-MMF investment funds ¹	Non-MMF Investment funds ^a
S125 Other financial intermediaries, except insurance corporations and pension funds ¹	Other financial intermediaries except insurance corporations and pension funds (ICPFs) ^a
S126 Financial auxiliaries ¹	Financial auxiliaries ^a
S127 Captive financial institutions and money lenders ¹	Captive financial institutions and money lenders ^a
S128 Insurance corporations ¹	Insurance corporations ^a
S129 Pension funds ¹	Pension funds ^a
S13 General government	Nonfinancial corporations, households, and NPISHs
<i>General government classification—alternative A</i>	Nonfinancial corporations ^a
S1311 Central government	Households
S1312 State government	NPISHs (nonprofit institutions serving households; may be combined with households)
S1313 Local government	
S1314 Social security funds	
<i>General government classification—alternative B</i>	Additional sectors for counterpart data:
S1321 Central government ³	International organizations
S1322 State government ³	International financial organizations
S1323 Local government ³	Central bank of currency union
	Other international organizations
S14 Households	
S15 Nonprofit institutions serving households	
<i>Rest of the world may be classified in the same way as resident institutional sectors, with the addition of:</i>	
International organizations	
International financial organizations	
Central bank of currency union ⁴	
Other	
International nonfinancial organizations	

Note: The SNA sector classification also includes scope for a subsector for foreign-controlled corporations, defined similarly, but not identically, to direct investment subsidiaries. It also allows for separate identification of nonprofit institutions and for-profit institutions within the corporations sectors.

¹Supplementary "of which" items may be provided for public corporations.

²Additional subsector may be identified for monetary authorities, where needed

³Including social security funds of this level of government.

⁴If the reporting economy is a member state of a currency union.

^aAdditional subsector may be identified for monetary authorities, where needed

^bSupplementary "of which" items may be provided for public corporations

Comparison/correspondence between the international accounts (BPM6) and the SNA

5. Similarly to the SNA, the international accounts (BPM6) cover current and accumulation accounts (flows), as well as the balance sheet (IIP). In the international accounts, transaction flows are gathered together under the balance of payments. The balance of payments is divided into the current accounts (the goods and services account, the primary income account, and the secondary income account) and the accumulation accounts (the capital account, the financial account). In addition, other flows (not transaction-type) relating to valuation changes are gathered under a separate statement – Other changes in financial assets and liabilities account. The IIP covers the part

of the national balance sheet that represents the cross-border element, i.e., the stock of financial claims (assets) and liabilities held in relation to non-residents, and gold bullion.

6. The presentation below highlights the similarities and differences in the accounting presentation of the *SNA* and *BPM6*, account by account emphasizing the balancing items, as applicable. It should be noted that, unlike the *SNA* where each account has a distinct balancing item, the international accounts carry in addition a cumulative balancing item from one account to the next one. Conversely, the *SNA* records the balancing item of the previous account as the first entry on the resource side to emphasize the resource-use concept and continuity in the sequence of accounts. The resource-use concept does not pertain to the rest of the world accounts, and therefore these lines are suppressed from the presentation of accounts below. There is also a balancing item for the balance sheet called net worth reflecting the difference between assets and liabilities. Changes in net worth due to different transactions and other flows may also be derived. As mentioned in the Appendix 7 of *BPM6*, credits in the balance of payments are called resources in the *SNA*, and debits are called uses.

Current accounts

7. There is no direct matching in the international accounts for the *SNA*'s production account because the international accounts do not cover production and consumption processes. The equivalent recording for the *SNA*'s rest of the world entries is the goods and services account. The scope of the international transactions commences with the cross-border exchanges, and therefore all imports and exports of products (goods and services) are treated as transactions in the goods and services account, irrespective of their destination (consumption or accumulation). The only transactions accounts within the goods and services account with a cross-border dimension are the imports and exports of goods and services. While the scope is the same in the two systems, their breakdown differs. The *SNA* records in this account the aggregated imports and exports of goods and of services only. A disaggregated presentation of the imports and exports classified according to CPC/ISIC is treated separately in special matrices (the supply and use tables and the goods and services account), emphasizing product balances and their aggregation by product/industry (see Chapter 14, *2008 SNA*).

8. The balance of payments emphasizes the distinction between goods and services. Goods are presented at an aggregated level while services are covered in detail. These distinctions reflect policy interests as well as source data issues (see Chapter 10, *BPM6*).

9. The balancing item of the production account in the *SNA* is gross value added/gross domestic product (domestic sectors/total economy) and the external balance on goods and services for the rest of the world, which is mirrored by the balance on goods and services in the international accounts.

10. There is no correspondent in the international accounts for the *SNA*'s generation of income account because it does not record any cross-border exchanges but the domestic generation of primary incomes that accrue to government and to the resident units participating directly in the production process.

11. The primary income account entries in the balance of payments are largely concerned with compensation of employees and property income, exactly as in the allocation of primary income account in the *SNA*. Also recorded in the primary income account are the payments of taxes on production payable by a resident to another government, as well as the subsidy receivable by a resident from another government, which are mirrored in the *SNA*'s rest of the world sector. Property

income in the *SNA* is the equivalent of the investment income in the balance of payments excluding rent. Rent may rarely arise in cross-border situations because all land is deemed to be owned by residents, if necessary by creating a notional resident unit. An example where rent may be recorded in the international accounts may be short-term fishing rights in territorial waters provided to foreign fishing fleets. Investment income in relation to cross-border transactions reflects the return to the financial capital invested abroad and vice versa. Interest flows are measured on exactly the same basis in both the *BPM6* and the *SNA* with FISIM separated and treated as an import/export of financial services.

12. The balance on primary income, the balancing item of the primary income account in the balance of payments, corresponds to balance of primary incomes in the *SNA* and is feeding into the gross national income (GNI). The cumulative balancing item for this sequence of the international accounts is the balance on goods, services and primary income.

13. The entries in the secondary income account of the balance of payments are current transfers. The range of entries corresponds exactly to those in the secondary distribution of income account in the *SNA*. Several of these are particularly important in the balance of payments, in particular the current international cooperation and personal transfers (remittances) sent to their home countries by individuals working abroad (*see BPM6*, Chapter 12 and Appendix 5). Of significant importance internationally can be the insurance flows related to reinsurance. The balance of payments records these flows in the same way as the *SNA*, both as regards the separation of a financial service charge and the treatment of direct insurance and reinsurance flows separately and not on a consolidated basis (more details in Chapter 10, *BPM6*).

14. The balancing item recorded at this point for the international accounts is the balance on secondary income. The *SNA* records the disposable income as a balancing item, however, without a direct matching entry for the rest of the world, whose balancing item ends with the current external balance. The current external balance also concludes the current accounts in the *SNA* and corresponds to the saving by the rest of the world relative to the domestic economy. The matching balance is the current account balance in the international accounts. There is no correspondent in the international accounts for the *SNA*'s use of disposable income account because the entries for this account only concern a domestic use of disposable income.

The capital account

15. The elements of the capital account subject to international transactions are more restricted than those covered in the *SNA*. The entries recorded in the balance of payments for the capital account cover acquisitions and disposals of non-produced non-financial assets and capital transfers only. There are no transactions recorded as capital formation of produced assets because the international accounts are not concerned with the final use of products imported/exported.

The financial account

16. Of major importance for the international accounts is the financial account, which together with the IIP, play an important role in understanding the international financing, as well as the international liquidity and vulnerability of a given domestic economy.

17. As mentioned above, the major difference in presentation in the *SNA* and *BPM6* regards the grouping of the financial assets and liabilities by functional categories as the primary level of classification and the use of the instruments and sectors by the *SNA* for the same categories.

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. The institutional sector classification is the same as in the *SNA*, although it is usually abbreviated. 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.

18. As in the *SNA*, the balance of payments has exactly the same balancing item – net lending or net borrowing, which represents the balancing item for the sum of the current and capital accounts, as well as for their counterpart – the financial account. In both systems, it covers all instruments used for providing or acquiring funding, not just lending and borrowing. Conceptually, it has the same value as the national accounts item for the total economy, and the same as the national accounts item for the rest of the world but with the sign reversed.

Balance sheet - IIP

19. The balance sheet in the *SNA* measures the stocks of assets, both non-financial and financial, and liabilities aggregated across all types and institutional sectors so as to derive at the end the net worth by institutional sector and total economy. It shows how the transactions and other flows occurring during the course of a year explain the changes in stocks between the beginning and the end of year. The part of the balance sheet covered in the international accounts is called the IIP and is matching the rest of the world sector in the *SNA*. Unlike the *SNA*'s balance sheets, the IIP covers only financial assets and liabilities. Non-financial assets are excluded as they do not have a counterpart liability or other international aspect. In the case where they are part of the cross-border activities, these exchanges are covered in the current account in the goods account. In the case of financial claims, the cross-border element arises when one party is a resident and the other party is a non-resident. 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.

20. As mentioned above, 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. Figure 2.1. Overview of the *SNA* as a macroeconomic framework including international accounts in *BMP6* illustrates among other the balance sheet framework.

Table: Current accounts

NA- ROW				BOP			
	Resources	Uses	Balancing item	Credits	Debits	Balance	
				Current accounts			
Production account				Goods and services account			
Imports of goods and services	499			540			Goods and services
Imports of goods	392			462			Goods
Imports of services	107			78			Services
Exports of goods and services		540			499		Goods and services
Exports of goods		462			392		Goods
Exports of services		78			107		Services
Output							
Intermediate consumption							
Taxes on products							
Subsidies on products (-)							
<i>Value added, gross/Gross domestic product</i>							
External balance on goods and services			-41			41	Balance on goods and services, net exports
Generation of income account							
Compensation of employees							
Taxes on production and imports							
Subsidies							
<i>Operating surplus/Mixed income, net</i>							

Table: Current accounts (contd.)

NA- ROW				BOP			
	Resources	Uses	Balancing item	Credits	Debits	Balance	
Allocation of primary income account							Primary income account
Compensation of employees	2	6		6	2		Compensation of employees
Property income	38	44		44	38		Investment income (DI,PI, OI, RA)
Interest	21	13		13	21		Interest
Distributed income of corporations	17	17		17	17		Distributed income of corporations
Reinvested earnings on FDI	0	14		14	0		Reinvested earnings on FDI
Investment income disbursement (insurance policy holders, pensions, collective investment funds)	0	0		0	0		Investment income attributable to insurance policy holders, pension and standardized guarantee schemes
Rent							Other primary income
Taxes on production and imports							Other taxes on production
Subsidies							Other subsidies on production
							Rent
<i>Balance of primary income/GNI</i>			-10			10	Balance on primary income
						51	Balance on goods, services and primary income

Table: Current accounts (contd.)

NA- ROW				BOP			
	Resources	Uses	Balancing item	Credits	Debits	Balance	
Secondary distribution of income account							Secondary income account
Current taxes on income, wealth, etc.	0	1		1	0		Current taxes on income, wealth, etc. (GG, FC, NFC, Hd, NPISHs)
Net social contributions	0	0		0	0		Social contributions (GG, FC, NFC, Hd, NPISHs)
Social benefits other than social transfers in kind	0	0		0	0		Social benefits (GG, FC, NFC, Hd, NPISHs)
Other current transfers	55	16					
Net non-life insurance premiums	11	2		2	11		Net non-life insurance premiums (FC, NFC, Hd, NPISHs)
Non-life insurance claims	3	12		12	3		Non-life insurance claims (FC, NFC, Hd, NPISHs)
Current international cooperation	31	1		1	31		Current international cooperation (GG, FC, NFC, Hd, NPISHs)
Miscellaneous current transfers	10	1		1	10		Miscellaneous current transfers (GG, FC, NFC, Hd, NPISHs)
- Current transfers between resident and non-resident households	7	1		1	7		- Personal transfers (FC, NFC, Hd, NPISHs)
							Adjustment for the change in pension entitlements
Current transfers	55	17		17	55		Secondary income
<i>Disposable income, net</i>						-38	Balance on Secondary income
Use of disposable income							
Final consumption expenditure							
Adjustment for the change in pension entitlements	0	0					
<i>Saving</i>							

Current external balance			-13			13	Current account balance
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Table: Capital account

NA- ROW				BOP			
Capital account	Changes in assets	Changes in liabilities and/or net worth	Balancing item	Credits	Debits	Balance	Capital account
Gross capital formation							
Consumption of fixed capital							
Changes in inventories							
Acquisitions/disposals of nonproduced nonfinancial assets	0	0					Acquisitions/disposals of nonproduced nonfinancial assets
Capital transfers				1	4		Capital transfers
-receivable		4					
-payable		-1					
						-3	Capital account balance
Net lending(+)/net borrowing(-)			-10			10	Net lending(+)/net borrowing(-)

Table: Financial account

NA- ROW				BOP			
Financial account	Changes in assets	Changes in liabilities and net worth	Balancing item	Net acquisition of financial assets	Net incurrence of liabilities	Balance	Financial account (by functional category)
<i>Net acquisition of financial assets/net incurrence of liabilities</i>	47	57		57	47		Total changes in assets or liabilities
Monetary gold and SDRs	1			8	11		Direct investment (DI)
Monetary gold (RA)	0			18	14		Portfolio investment (PI)
SDRs (assets-RA, liabilities-OI)	1			3	0		Financial derivatives (other than reserves) and ESOs (FD)
Currency and deposits (DI, OI, RA)	11	-2		20	22		Other investment (OI)
Debt securities (DI, PI, RA)	9	21		8			Reserve assets (RA)
Loans (DI, OI, RA)	4	35					
Equity and investment fund shares (DI, PI, OI, RA)	12	14					
Insurance, pension, and standardized guarantee schemes (DI, OI)	0	0					
Financial derivatives and employee stock options (FD, RA)	0	3					
Other accounts receivable/payable (DI, OI)	10	-14					
Net lending(+)/net borrowing(-)			-10			10	Net lending (+) or net borrowing (-)
						0	Net errors and omissions

Table: Other flows - Other changes in the volume of assets account

NA- ROW				IIP			
Other changes in the volume of assets account	Changes in assets	Changes in liabilities and/or net worth	Balancing item	Net Changes in assets due to other changes in volume	Net Changes in liabilities due to other changes in volume	Balance	Other changes in the financial assets and liabilities Other changes in volume
Economic appearance of assets							
Economic disappearance of non-produced non-financial assets							
Catastrophic losses							
Uncompensated seizures							
Other changes in volume n.e.c.							
Changes in classification							
Changes in sector classification and structure	0	0					
Changes in classification of assets and liabilities	0	0					
Total other changes in volume							
Produced non-financial assets							
Non-produced non-financial assets							
Financial assets	0	0		0	0		Direct investment (DI)
Monetary gold and SDRs				0	0		Portfolio investment (PI)
Currency and deposits				0	0		Financial derivatives (other than reserves) and ESOs (FD)
Debt securities				0	0		Other investment (OI)
Loans				0	0		Reserve assets (RA)
Equity and investment fund shares/units							TOTAL, of which:
Insurance, pension and standardized guarantee schemes							Equity and investment fund shares
Financial derivatives and employee stock options							Debt instruments
Other accounts receivable/payable							Other financial assets and liabilities

<i>Changes in net worth due to other changes in volume of assets</i>			<i>0</i>				<i>0</i>	<i>Changes in net IIP arising from other changes in volume</i>
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Table: Other flows - Revaluation

NA- ROW				IIP					
Revaluation account	Changes in assets	Changes in liabilities and/or net worth	Balancing item	Net Changes in assets due to revaluations		Net Changes in liabilities due to revaluations		Balance	Other changes in the financial assets and liabilities Revaluations
				Exchange rate changes	Other price changes	Exchange rate changes	Other price changes		
Nonfinancial assets				1		2			Direct investment (DI)
Financial assets/liabilities	7	15			2	1	4		Portfolio investment (PI)
Monetary gold and SDRs		12							Financial derivatives (other than reserves) and ESOs (FD)
Currency and deposits									Other investment (OI)
Debt securities	4	2		12					Reserve assets (RA)
Loans				13	2	3	4		TOTAL, of which:
Equity and investment fund shares/units	3	1		1		3			Equity and investment fund shares
Insurance, pension and standardized guarantee schemes					2		4		Debt instruments
Financial derivatives and employee stock options				12					Other financial assets and liabilities
Other accounts receivable/payable								8	<i>Changes in net IIP arising from revaluation</i>
Changes in net worth due to nominal holding gains/losses			-8					8	<i>Changes in net IIP arising from other changes</i>

To be added:

B. Linkages of the International Accounts with Monetary and Financial Statistics

C. Linkages of the International Accounts with Government Finance Statistics

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