

Chapter 16: Summarising and integrating the accounts3

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Chapter 16: Summarising and integrating the accounts

A. Introduction

- 16.1 This chapter provides a synthesis of the sequence of accounts presented in chapters 6 to 13 and shows how they relate to the tables in chapter 2. It shows how the most common aggregates in the System, GDP, NDP and GNI are related to the balancing items in the various accounts. It shows the impact on national aggregates of transactions undertaken between a resident unit and one resident in the rest of the world. It describes the articulation of the accumulation accounts.
- 16.2 The chapter lays the groundwork for greater elaboration of the accounts, in both manners of presentation and further analysis that form the subject matter of later chapters.

B. Integrating the accounts

- 16.3 The tables presented in the previous chapters use a format very common in published tables; the items representing resources are shown in the right-hand side of the table and the items representing uses in the left-hand side of the table. This format is flexible because it allows a multiple number of columns to be shown for both parts of the table and even for the two parts to be shown on different pages if the columns are sufficiently numerous. However, there is another format for the tables that is particularly useful for explanatory purposes, the T account.
- value of goods and services that reach the national economy from the rest of the world and those that are produced in the national economy but are provided to the rest of the world.

- 16.4 In a T account, only one set of descriptive headings (stubs) is shown in the middle of the table with values representing resources in columns to the right and values representing uses in columns to the left. An example of a T account is given in table 16.1. The rows in the table show the rows from tables 6.1, 7.1, 7.2, 8.1 and 9.1 at a high level of aggregation. Data for the individual sector accounts are not shown but the total for the economy as well as for the rest of the world and the total of both these are shown. In addition, the column for the goods and services account is retained.
- The production account
- 16.6 The immediately following rows show the main entries from the production account, output and taxes less subsidies on the resource side and intermediate consumption on the use side. The balancing item for the production account, value added appears next, also on the use side as the closing item of the production account. Value added is the basic building block for determining GDP.

1. Summarising the current accounts

- 16.5 The current accounts included in table 16.1 consist of the production account and accounts showing the primary distribution of income, the secondary distribution of income and the use of income. In addition to these accounts, table 16.1 begins with imports and exports of goods and services, the entries from the rest of the world account that show the
- The generation of income account
- 16.7 The next set of rows correspond to the generation of income account. This is the first part of the primary distribution of income account. Value added, the balancing item from the production account appears as the only entry on the resources side of the account. The entries on the left-hand side of the account under uses show how much of value added is generated by labour in the form of compensation of employees, how much is added by government in the form of taxes on products less subsidies on products not already included in the value of output. The balancing items, operating surplus and mixed income, represent the contribution of capital to the generation of value added.

Table 16.2: Summary of the accumulation accounts and balance sheets

Changes in assets				Changes in liabilities and net worth			
S1	S2			S1	S2		
Total economy	Rest of the world	Goods and services	Total	Total economy	Rest of the world	Goods and services	Total
				Code	Transactions and balancing items		
				Capital account			
				B8n			224
				B12		- 32	- 32
414			414	P5g			414
192			192	P51n			192
376			376	P51g			376
- 222			- 222	P6		- 222	- 222
				<i>AN11 Gross fixed capital formation by type of asset</i>			
28			28	AN12			28
10			10	AN13			10
0			0	NP		0	0
				D8r			62
				D8p			- 65
						4	66
						- 1	- 66
				<i>Changes in net worth due to saving and capital transfers</i>			221
				<i>Net lending (+) / net borrowing (-)</i>			- 29
29	- 29		0				192
				Financial account			
				<i>Net lending (+) / net borrowing (-)</i>			29
450	37		487	Net acquisition of financial assets/liabilities			- 29
- 1	1		0	F1		66	0
97	11		108	F2			421
82	9		91	F3			110
77	4		81	F4			- 2
117	2		119	F5			71
48	0		48	F6			20
14	0		14	F7			36
16	10		26	F8			45
							81
							105
							14
							48
							0
							11
							3
							- 14
							26
				Other changes in the volume of assets account			
15			15	Total other changes in volume			- 2
- 7			- 7	AN1			- 2
17			17	AN2			- 2
5			5	AF			- 2
0			0	AF8			- 2
				<i>Changes in net worth due to other changes in volume of assets</i>			17
				Revaluation account			
				<i>Nominal holding gains and losses</i>			
280			280	AN			
84	7		91	AF			76
				<i>Changes in net worth due to nominal holding gains/losses</i>			3
							288
				<i>Neutral holding gains and losses</i>			4
198			198	AN			
136	12		148	AF			126
				<i>Changes in net worth due to neutral holding gains/losses</i>			6
							208
				<i>Real holding gains and losses</i>			6
82			82	AN			
- 52	- 5		- 57	AF			- 50
				<i>Changes in net worth due to real holding gains/losses</i>			- 3
							- 2
							78
				Opening balance sheet			
4 821			4 821	AN			
8 031	805		8 836	AF			7 762
				<i>Net worth</i>			1 074
							5 090
							- 269
							4 821
				Total changes in assets and liabilities			
499			499	AN			
539	44		583	AF			495
				<i>Changes in net worth, total</i>			69
							564
							535
							- 25
							510
				<i>Changes in net worth due to:</i>			
							230
							- 29
							17
							288
							4
							292
				Closing balance sheet			
5 320			5 320	AN			
8 570	849		9 419	AF			8 257
				<i>Net worth</i>			1 143
							9 400
							5 625
							- 294
							5 331

The allocation of primary income account

- 16.8 In the allocation of primary income account, these contributions to value added appear as resources of the relevant sectors; compensation of employees to households, taxes less subsidies to government and operating surplus and mixed income to the sectors containing the relevant production units. In addition, however, the allocation of primary income account shows how much of each of these three items is payable to non-resident units and where comparable items generated in non-resident units is payable to resident sectors.
- 16.9 In the course of production, producers may have made use of assets belonging to other units. The payments for the use of these assets are shown as property income. Property income may be payable by residents or non-residents and may be receivable by residents or non-residents. Once the values for three of them are known, the value of the last is necessarily determined. For example, property income receivable by residents must be equal to property income payable by both residents and non-residents less property income receivable by non-residents. Thus property income receivable by both residents and non-residents (shown under resources) must be equal to property income payable by both residents and non-residents (shown under uses).
- 16.10 Value added as a resource plus the resource entries of compensation of employees, operating surplus, mixed income and property income, less the corresponding entries for these items as uses leads to the balance of primary incomes. This is the balancing item for the allocation of primary income account shown as a use, and the first item, a resource, of the secondary distribution of income account.
- 16.11 From the balance of primary incomes, another key aggregate of the System, national income, is derived. Value added is determined by the criterion of residence; all resident units and only resident units contribute to the total. For the balance of primary income, however, the focus changes not just from production to income but to the residence of the units receiving the income generated by production rather than the residence of the producing units themselves. Further discussion of national income appears below in connection with the discussion of the rest of the world account.

The secondary distribution of income account

- 16.12 The secondary distribution of income account shows how primary income is transformed to disposable income by the payment and receipt of current transfers. Various factors stimulate redistribution of income between sectors of the economy. One of these is the role of government in levying current taxes on income and wealth; one is the role played by social insurance schemes in redistributing contributions by current workers to retirees; another is the role of insurance in providing a mechanism whereby small regular payments by many units are channelled to a few units suffering predefined sorts of losses. Among other types of current transfers, the role of purely voluntary transfers, either to provide the main source of finance for NPISHs, in the form of international co-operation between governments or between resident and non-

resident households in the form of workers' remittances is of increasing interest.

- 16.13 Current transfers payable by resident and non-resident units must be equal to current transfers receivable by both resident and non-resident units, and thus the use and resource are equal as is the case for property income.
- 16.14 Disposable income is an important balancing item in the accounts since it shows how much can be consumed without the need to run down assets or incur liabilities. It thus corresponds to the economic theoretical concept of income.

The use of income accounts

- 16.15 The use of disposable income account shows how much disposable income is in fact used for consumption and how much is saved. When looking at the sector accounts, the adjustment for the change in pension entitlements has to be made to ensure that these form part of the saving of households and not of pension funds. However, in the aggregate only flows involving non-resident employees or resident employees of non-resident enterprises appear.
- 16.16 Table 16.1 does not include the redistribution of income in kind account and the use of adjusted disposable income account but these could be inserted either in place of, as a complement to, the use of disposable income account.

2. Summarising the accumulation accounts

- 16.17 Table 16.2 presents a summary of the accumulation accounts and balance sheets with the same degree of detail as used for the current accounts in table 16.1. In this case, the titles given to the right- and left-hand columns are changed; the columns to the right are described as changes in liabilities and net worth, and those to the left show changes in assets

The capital account

- 16.18 The first items appearing on the right-hand side of the capital account are saving and the current external balance. Also appearing as resources are capital transfers receivable. By convention, capital transfers payable also appear under resources but with a negative sign. For the economy as a whole, including transactions with the rest of the world, capital transfers receivable and payable exactly offset one another in the same way that property income and current transfers do, but this equality is not generally true for the total economy nor for individual sectors within it.
- 16.19 Together, saving plus capital transfers (net) show how much is available within the economy to acquire non-financial capital, primarily capital formation but also non-produced non-financial assets. This total is shown as a special aggregate called changes in net worth due to saving and capital transfers. It is not a balancing item but has the same characteristic of being an analytical construct of particular interest.
- 16.20 The uses shown in the capital account are the acquisition of

produced and non-produced non-financial assets. The balancing item of the capital account is net borrowing or lending. When there is net lending, it shows the extent to which the sum of saving and capital transfers are actually used to finance the acquisition of non-financial assets and how much is lent to the rest of the world. When there is net borrowing, saving plus capital transfers are insufficient to finance all the acquisition of non-financial assets and borrowing from the rest of the world is necessary.

The financial account

- 16.21 The financial account shows exactly how net lending or borrowing takes place by showing all the transactions in financial instruments. Transactions in financial assets shown as changes in assets exactly balance the amounts shown as changes in liabilities and net worth because when all transactions of resident units with either other resident units or non-resident units are taken into account, there can be no net lending or borrowing left unexplained.
- 16.22 Because the financial account does not introduce any new balancing items and only explains how net lending or net borrowing is effected, and because it requires quite different data sources and understanding of the data sources, this account is not always compiled by national accountants. However, without the financial account, the compiler cannot be certain that the estimates for the other accounts are fully consistent and complete. Just as the national accountant must have an understanding of the balance of payments system and ensure that the transactions relating to the rest of the world are fully captured in the accounts, so there is a need to appreciate the implications of systems of monetary and financial statistics. Two later chapters, chapters 26 and 27, discuss the relationships with these other statistical systems in more detail.

3. The goods and services account

- 16.23 Throughout the sequence of accounts, each transaction line is balanced. For the distributive and redistributive transactions, this is automatically the case if the data are fully reconciled since whatever is shown as payable by one unit must be shown as receivable by another. However this is not obviously the case for the transactions relating to goods and services. In order to preserve the balancing nature of the accounts, a column headed "goods and services" is included on each side of the accounts. In every case where there is a transaction relating to goods and services, an entry in the goods and services column on the other side of the account is made.
- 16.24 Ultimately the entries on the left-hand side of the account show the value of all goods and services supplied to the economy, either as production or imports, plus the taxes on products less subsidies paid on them. On the right-hand side of the account, the use of the goods and services is shown, as intermediate or final consumption, capital formation or exports.

- 16.25 Clearly, ex-post the total amount of goods and services supplied to the economy must be equal to the total use made of those goods and services. Setting the entries in the left-hand goods and services column equal to those in the right-hand side column gives the familiar goods and services account, described in chapter 14:

$$\text{Output} + \text{imports} + \text{taxes less subsidies on products} \\ = \text{intermediate consumption} + \text{final consumption} + \text{exports} + \text{capital formation}$$

- 16.26 The equation reflects the notion that goods and services produced now are used either to generate more goods and services in the current period (intermediate consumption) or to generate more goods and services in future periods (capital formation) or to satisfy human wants immediately (final consumption). However, because no economy is entirely closed, it is necessary to allow for those goods and services supplied from outside the economy (imports) and those goods and services used by other economies (exports).
- 16.27 This identity comprises the goods and services account. *The goods and services account shows the balance between the total goods and services supplied as resources to the economy as output and imports (including the value of taxes less subsidies on products not already included in the valuation of output) and the use of the same goods and services as intermediate consumption, final consumption, capital formation and exports.*

4. The accounts for the rest of the world

- 16.28 The entries in the integrated accounts for the rest of the world correspond to the entries in the balance of payments as laid out in *BPM6*. Table 16.3 shows the entries for the rest of the world in the structure of the balance of payments accounts.
- 16.29 There are three current accounts; one for goods and services, one for primary income and one for secondary income. Each of these has a balancing items but, unlike the accounts in the System, the balancing items do not carry down from one account to the next. However, other balancing items that do match those in the System are allowed for. Thus the external balance of goods and services, services and primary income is the sum of the external balance of goods and services and the external balance of primary incomes and corresponds to the balance of primary income for the total economy. When this item is added to the external balance of secondary income, the current external balance is derived which corresponds to saving for the total economy.
- 16.30 In the capital account of the rest of the world, the only entries are for capital transfers receivable from and payable to the rest of the world and acquisition less disposals of non-produced non-financial assets. These give the capital external balance. When this is added to the current external balance, the result is net lending to or borrowing from the rest of the world.

Table 16.3: Entries for the rest of the world using the BPM6 structure of accounts

Uses		Resources
Rest of the world	Transactions and balancing items	Rest of the world
	Goods and services account	
	Imports of goods and services	499
540	Exports of goods	
- 41	<i>External balance of goods and services</i>	
	Primary income account	
6	Compensation of employees	2
	Taxes on production and imports	
	Subsidies	
63	Property income	38
- 29	<i>External balance of primary income</i>	
	Secondary income account	
17	Current transfers	55
38	<i>External balance of secondary income</i>	
- 32	<i>External current account balance</i>	
	Capital account	
0	Acquisition less disposals of non-financial non-produced assets	
	Capital transfers, receivable	4
	Capital transfers, payable	- 1
3	<i>External capital account balance</i>	
- 29	<i>Net lending (+) / net borrowing (-)</i>	

5. Integration of stock and flow data

Linking the opening and closing balance sheets

16.31 The balance sheets are an integral part of the System. An understanding of the articulation of the balance sheets with the flows relating to assets in the capital, financial and other changes in assets accounts is fundamental to understanding the role capital accumulation plays in the System.

16.32 The basic accounting identity linking the opening and the closing balance sheet values for a single type of asset can be summarized as follows:

The value of the stock of a specific type of asset in the opening balance sheet valued at the prices prevailing at the date the balance sheet refers to ;

plus the total value of the assets acquired, less the total value of those disposed of, in transactions that take place within the accounting period:

plus the value of other positive or negative changes in the volume of the assets held (for example, as a result of the

discovery of a subsoil asset or the destruction of assets as a result of war or a natural disaster):

plus the value of the positive or negative nominal holding gains accruing during the period resulting from a change in the price of the asset:

equals the value of the stock of the asset in the closing balance sheet valued at the prices prevailing at the date the balance sheet refers to.

16.33 The value of the assets acquired, less the total value of those disposed of, in transactions that take place within the accounting period are recorded in the capital account and transactions in financial assets in the financial account. The value of other positive or negative changes in the volume of the assets held are recorded in the other changes in the volume of assets account. The value of the positive or negative nominal holding gains accruing during the period resulting from a change in the price of the asset are recorded in the revaluation account. This means that the value of each entry in the closing balance sheet can, in principle, be constructed by taking the value in the opening balance sheet and adding to it

the entries relating to the same asset in each of the four accumulation accounts.

- 16.34 A nominal holding gain may be decomposed into a neutral holding gain and a real holding gain. The nominal holding gain indicated by how much the value of an asset has increased over the period. The neutral holding gain indicates the increase that would have been necessary for the asset to exactly maintain its purchasing power over the period. If the nominal holding gain is larger than the neutral holding gain, the owner of the asset has a real holding gain (equal to the difference between the nominal and neutral holding gains). If the nominal holding gain is less than the neutral holding gain, then the owner suffers a holding loss.
- 16.35 The identity linking the opening and closing balance sheets and the accumulation account is valid even in the case of assets that are held only temporarily within the accounting period and that do not appear in either the opening or the closing balance sheets. For example, an asset may be acquired in a period, increase in price due to a holding gain and then suffer some destruction before being sold again before the end of the period.
- 16.36 The link between the balance sheet and flow accounts in respect of financial assets and liabilities is often recognised and presented. Less attention has been focussed on the links for non-financial assets though, as chapter 20 on capital services makes clear, it is no less important, especially as regards an understanding of productivity growth in the economy.

Net worth

- 16.37 The balancing item on a balance sheet is equal to the sum of all the assets less all the liabilities and is called net worth. The change in net worth between the opening and closing balance sheet can be shown to be composed of three items.
- 16.38 The first of these is the change in net worth due to saving and capital transfers. This comes from the capital account and is the item shown as the total of resources on that account.
- 16.39 The second item is the change in net worth due to other changes in the volume of assets and is the sum of all the entries for assets in the other changes in the volume of assets account less all the entries for liabilities.
- 16.40 The third item is the change in net worth due to nominal holding gains and losses. This is the sum of the entries for nominal holding gains and losses for all assets recorded in the revaluation account less the entries for nominal holding gains and losses on all liabilities. This can be broken down into the change in net worth due to neutral holding gains and losses and the change in net worth due to real holding gains and losses in an obvious manner.

Asset accounts

- 16.41 The identity holds for assets in total, for every separate class of asset and indeed for every individual asset. An asset account describes the changes in the stock of an asset or class of assets from one balance sheet to the next, itemising which changes are due to capital transactions, which to financial transactions and which to other changes in volume and revaluation. Asset accounts are described in chapter 13.

6. Consolidating the accounts

- 16.42 Although it is not usual to present the accounts in a fully consolidated form, it is useful from a pedagogical point of view to consider what results from a full consolidation of the accounts.

Consolidating the current accounts

- 16.43 All the items in table 16.1 relating to the distribution and redistribution of income appear on both sides of the account. Their inclusion permits the derivation of significant balancing items but it is also possible to consider what entries are left if they are eliminated by consolidation. In fact what remains are the entries in the goods and services columns plus the entries for saving and the current external balance. That these balance can be seen as follows:

a. Resources

Imports 499;

Output 3 604;

Taxes on products 141;

Subsidies on products -8;

Total 4 236

b. Uses

Exports 540;

Intermediate consumption 1 883;

Final consumption 1 399

Saving 446;

Current external balance -32;

Total 4 236

- 16.44 The current external balance (-32) is equal to the external balance of goods and services (-41) plus the flows of income coming from the rest of the world (9). If imports, exports and the external balance of goods and services are removed from

the consolidation just described, the following result can be derived:

Output 3 604;

plus Taxes on products 141;

plus Subsidies on products -8;

minus Intermediate consumption 1 883;

(result 1 854);

is equal to Final consumption 1 399

minus Saving 446;

plus income from the rest of the world 9

- 16.45 The first part of this identity is the definition of income generated in the economy. If the income from the rest of the world is regarded as an analogue to saving generated within the domestic economy, this identity can be seen as the simple economic concept that income is equal to consumption plus saving.

Consolidating the accumulation accounts

- 16.46 When the capital and financial account are consolidated, all the entries in the financial account are eliminated and the entries for net lending or borrowing that appear in each account cancel. All that is left is:

capital formation (414)

plus the acquisition less disposals of non-produced assets (0)

is equal to saving (446)

plus the current external balance (-32).

Consolidating the rest of the world account

- 16.47 Looking only at the capital and financial account of the rest of the world:

the current external balance (-32)

plus capital transfers receivable (4)

minus capital transfers payable (1)

is equal to net lending or borrowing (-29).

- 16.48 Combining this identity with the previous one reduces to:

Capital formation (414)

plus the acquisition less disposals of non-produced assets (0)

is equal to saving (446)

plus net lending or borrowing to the rest of the world (-29)

minus capital transfers payable to the rest of the world (4)

plus capital transfers receivable from the rest of the world (1).

In other words investment is equal to saving generated from within the total economy or drawn in from the rest of the world.

C. The macro-economic aggregates in the System

1. The GDP identities

- 16.49 Rearranging the order of items appearing in the goods and services account leads to the most familiar definitions of GDP

Output (3 604) - intermediate consumption (1 883) + taxes less subsidies on products (141-8)

= final consumption (1 399) + capital formation (414) + exports (540) - imports (499) = GDP (1 854)

There are thus two separate ways in which GDP can be defined:

a. the output measure of gross domestic product (GDP) is derived as the value of output less intermediate consumption plus any taxes less subsidies on products not already included in the value of output,

b. the expenditure measure of gross domestic product (GDP) is derived as the sum of expenditure on final consumption plus gross capital formation plus exports less imports.

- 16.50 The output measure of GDP can also be expressed as value added adjusted to ensure all taxes less subsidies on products are included. As described in chapter 7, value added can be viewed as the elements comprising income: compensation of employees, operating surplus, mixed income and other taxes

less subsidies on production. If separate estimates are available of these components, then a third way of compiling GDP is possible, that is, from the income side. Because other taxes less subsidies on production are included in value added and taxes less subsidies on products are to be included also, the two tax items can be replaced by the term that is the sum of them both, taxes less subsidies on production and imports.

GDP (1 854) = Compensation of employees (769) + gross operating surplus (452) + gross mixed income (442) + taxes less subsidies on production and imports (191)

The third way in which GDP can be defined is thus

c. the income measure of gross domestic product (GDP) is derived as compensation of employees plus gross operating surplus plus gross mixed incomes plus taxes less subsidies on both production and imports.

2. A note on the valuation of output

16.51 In chapter 6, it is explained that the preferred measurement of output in the system is basic prices. At basic prices, the value of output excludes all taxes on products and includes all subsidies on products. It includes all [other] taxes on production and excludes all [other] subsidies on production. However, the data sources in some countries may not permit this valuation to be followed. In this case, output will be valued at producers' prices. All taxes on both products and production (possibly excluding any VAT type taxes) will be included in the value of output and all subsidies on both products and production will be excluded.

16.52 For this reason, the definition of GDP from the output side given above includes the phrase "plus any taxes less subsidies on products not already included in the value of output". When output is valued at producers' prices, there will be no further taxes on products to add in (except possibly VAT type taxes); they will be already included in the measure of output (and similarly subsidies on products will already be deducted). In this case, GDP may be defined as *the output measure of gross domestic product (GDP) is derived as the value of output at producers' prices less intermediate consumption*. When output is measured at basic prices (as preferred in the System and as followed in the numerical example) the definition can be rephrased as *the output measure of gross domestic product (GDP) is derived as the value of output at basic prices less intermediate consumption plus taxes less subsidies on products*.

3. Gross and net domestic product

16.53 While the third definition of GDP is correct both economically and statistically, it is held not to be the best measure of income. Income is usually defined as the amount that can be spent while keeping the level of capital intact. (For further discussion on this see the introduction to Chapter 8.) It is for this reason that the item consumption of

fixed capital is so important in the accounts and appears in every account as the difference between balancing items on a gross and net basis. To measure domestic production on a net basis, it is necessary:

- a. to deduct consumption of fixed capital from the output measure of GDP,
- b. to replace gross capital formation by net capital formation in the expenditure measure of GDP,
- c. to replace gross operating surplus by net operating surplus and gross mixed income by net mixed income in the income measure of GDP.

16.54 Each deduction from GDP is equivalent because the difference between gross and net capital formation is the consumption of fixed capital as is the difference between the sum of operating surplus and mixed income on a gross basis as opposed to a net basis. Thus, *net domestic product (NDP) is defined as gross domestic product (GDP) less the consumption of fixed capital*.

NDP(1 632) = GDP(1 854) - consumption of fixed capital (222)

4. Gross and net national income

16.55 In some countries, border or seasonal workers may have a significant effect on the amount of compensation of employees that is either payable abroad or receivable from abroad. Compensation earned abroad but repatriated to the country where the employee is resident (as opposed to where he or she works) adds to the income of households available for consumption. The concept of national income as opposed to domestic production is thus another key aggregate of the System. As well as labour income from abroad in the form of compensation of employees, income earned abroad on capital, especially financial capital, in the form of property income, is included in national income as well as any taxes on products payable by non-residents. Similar payments flowing out of the national economy to the rest of the world have to be deducted from GDP to reach national income.

16.56 *Gross national income (GNI) is defined as GDP plus compensation of employees receivable from abroad plus property income receivable from abroad plus taxes less subsidies on production receivable from abroad less compensation of employees payable abroad less property income payable abroad and less taxes plus subsidies on production payable abroad*. In the terms of an equation,

GNI (1 883) = GDP (1 854)

+ compensation of employees receivable from abroad (6)

+ property income receivable from abroad (63)

+ taxes less subsidies on production and imports receivable from abroad (0)

- compensation of employees payable abroad (2)

- property income payable abroad (38)

- taxes less subsidies on production and imports payable abroad (0).

- 16.57 As mentioned above, an income concept is better measured after deducting consumption of fixed capital so *Net National Income (NNI) is defined as GNI less the consumption of fixed capital.*

$$\text{NNI}(1\ 661) = \text{GNI}(1\ 883)$$

- consumption of fixed capital (222)

5. National disposable income

- 16.58 A further step in examining the impact of the rest of the world on the national economy is to consider current

transfers receivable from abroad and those payable abroad. Transfers receivable from abroad include remittances from nationals working abroad for long enough (more than one year) to be treated as resident elsewhere. However, like compensation of employees payable from abroad, these transfers from non-residents can have a major impact on the resources available to the national economy. Overseas assistance, other than development assistance for capital projects is also shown here. As before, transfers payable abroad must be deducted in moving from national income to national disposable income.

- 16.59 National disposable income, more often than domestic product and national income, is usually shown on a net basis. *Net national disposable income (NNDI) is defined as net national income (NNI) plus current transfers receivable from abroad less current transfers payable abroad.* In equation terms,

$$\text{NNDI}(1\ 632) = \text{NNI}(1\ 661)$$

+ current transfers receivable from abroad (10)

– current transfers payable abroad (39)

D. An example set of integrated economic accounts

- 16.60 The T accounts shown in table 16.1 and 16.2 can be extended to cover all the sectors of the economy and as much detail as required in the accounts. Such an extended presentation is referred to as a set of integrated economic accounts. An example is tables 16.4 and 16.5 which show, simultaneously, the general accounting structure of the System and present a set of data for the individual institutional sectors, the economy as a whole and the rest of the world.

- 16.61 The table brings together in one presentation

the institutional sector accounts,

the rest of the world accounts, and

the goods and services account.

- 16.62 In order to simplify this table while still having it comprehensive, classifications of sectors, transactions and other flows, assets and liabilities are at the highest level of aggregation compatible with understanding the structure of the System. However, columns and rows can be subdivided to introduce sub-sectors or more detailed classifications of transactions and other flows, assets and liabilities.

1. Institutional sector accounts

Current accounts

- 16.63 As an example of the institutional sectors current accounts, consider the column for non-financial corporations.

The *production account* shows output (1 753) on the right-hand side, intermediate consumption (899) and value added (854 gross, 717 net, the difference referring to consumption of fixed capital (137), on the left-hand side). Value added, the balancing item of the production account, appears again in the same row as a resource of the *generation of income account*.

The uses of the *generation of income account* (compensation of employees (549) and other taxes (86) less subsidies on production (35)) are shown on the left-hand side, the balancing item being net operating surplus (117), which appears again as a resource of the *allocation of primary income account*.

In the *allocation of primary income account*, property income receivable (89), along with operating surplus is recorded on the right-hand side, and property income payable (135) is recorded on the left-hand side. The balancing item is the net balance of primary incomes (71), which appears again as a resource of the *secondary distribution of income account*. The *secondary distribution of income account* shows current transfers, payable (98) and receivable (72), leading to the balancing item of net disposable income (45). This item, which can also be described as the undistributed income of non-financial corporations, appears as a resource in the *use of income account*.

The only transaction appearing in the *use of income account* for the corporations sectors is an entry for the change in pension entitlements. In this case the entry has a value of zero so the balancing item of the use of income account, saving, has the same value as disposable income.

- 16.64 The accounts for other institutional sectors may be read the same way, the relevant transactions varying according to the sector involved.

The use of income account

- 16.65 The presentation of the two ways in which disposable income is associated with final consumption, one taking account of the redistribution of income in kind leading to actual consumption and the other showing final consumption expenditure to disposable income directly, is simplified in table 16.4 The redistribution of income in kind account and the use of adjusted disposable income account are merged with the use of income account as follows. Disposable income, net, is 315 for general government, 39 for NPISHs and 1 222 for households. Final consumption expenditure is 368 for government, 16 for NPISHs and 1 015 for households. Total consumption expenditure is 1 399. Saving is given by disposable income less final consumption expenditure.

The accumulation accounts

- 16.66 The accumulation accounts follow the sequence of current accounts for the institutional sectors. For example, net saving of households is 218. Households receive 23 and pay 5 as capital transfers. Thus changes in their net worth due to saving and capital transfers is 236. Households have 61 as gross fixed capital formation (19 as net fixed capital formation after deduction of consumption of fixed capital (42)), changes in inventories of 2 and acquisitions less disposals of valuables of 5. Their acquisitions less disposals of non-produced non-financial assets (land) are 4. The net lending of households is 206. They incur financial liabilities (net) of 14 and acquire financial assets (net) of 220. Other changes in volume of assets are 2. The value of the assets held by households increases by 96 due to changes in the prices of both non-financial assets (80) and financial assets (16); there are no nominal gains/losses on their liabilities, which means that all their liabilities are denominated in monetary terms and probably in the national currency of the economy in question.

The balance sheets

- 16.67 The balance sheets are also part of the integrated economic accounts. In order to see the relationships between the accumulation accounts and balance sheets, take general government as the example. The opening assets are 1 185 (789 non-financial assets and 396 financial assets) and the opening liabilities 687, net worth thus being 498. The total value of non-financial assets increases by 56, which results from all changes in these assets recorded in the accumulation accounts, gross fixed capital formation (37), consumption of fixed capital (-30), acquisitions less disposals of valuables (3), acquisitions less disposals of non-produced non-financial assets (2), other volume changes (1) and nominal holding gains (44). Financial assets decrease by 4 (net disposal of financial assets, 6, other volume changes, 1, nominal holding gains, 2). On the right-hand side, liabilities increase by 93, which results again from all changes in liabilities recorded in the accumulation accounts (net incurrence of liabilities (87), other volume changes (-1), revaluation of liabilities (7)). So the closing assets are 1 237 (845 + 392) and the closing liabilities are 780; closing net worth (457) shows a decrease over the year of 41. The sources of this change in net worth are summarized on the right-hand side of the account showing the change in balance sheets changes in net worth due to saving and capital transfers (-81, see also the right-hand side of the capital account), to other changes in volume of assets (2, see also the right-hand side of the other changes in volume of assets account), and to nominal holding gains/losses (38, see also the right-hand side of the revaluation account).

2. The rest of the world account

- 16.68 As explained earlier, the rest of the world accounts are presented from the viewpoint of the rest of the world. Imports of goods and services (499) are a resource for the rest of the world, even though they represent an outflow from the national economy and exports (540) are a use of the rest of the world. Thus imports appear on the right-hand side of the table and exports on the left. The external account of goods and services is shown at the same level as the production account for institutional sectors. The external balance of goods and services is (-41). With a positive sign, it is a surplus of the rest of the world (a deficit of the nation) and vice versa.
- 16.69 As explained in connection with table 16.3, the external balance on primary income is -29 and on secondary income is 38, giving a current external balance of -32.
- 16.70 Transactions of the accumulation accounts appear in the columns for the rest of the world when relevant (mainly capital transfers and financial transactions). The rest of the world columns show the assets and liabilities position of the rest of the world vis-à-vis the nation (external assets and liabilities account). The row "changes in net worth due to saving and capital transfers" corresponds, for the rest of the world, to the current external balance and capital transfers.

Table 16.4: Summary current account with sector details – uses

Uses		S11	S12	S13	S14	S15	S1	S2		
Code	Transactions and balancing items	Non-financial corporations	Financial corporations	General government	Households	NPISHs	Total economy	Rest of the world	Goods and services	Total
P8	Imports of goods and services								499	499
P7	Exports of goods							540		540
Production account										
P1	Output								3 604	3 604
P2	Intermediate consumption	899	29	252	694	9	1 883			1 883
D21	Taxes on products								141	141
D31	Subsidies on products (-)								- 8	- 8
B1g	Value added, gross / Gross domestic product	854	73	188	575	31	1 854			1 854
P6	Consumption of fixed capital	137	10	30	42	3	222			222
B1n	Value added, net / Net domestic product	717	63	158	533	28	1 632			1 632
B11	External balance of goods and services							- 41		- 41
Generation of income account										
B1n										
D1	Compensation of employees	549	15	142	39	24	769			769
D2	Taxes on production and imports						235			235
D21	Taxes on products						141			141
D29	Other taxes on production	86	3	2	3	0	94			94
D3	Subsidies						- 44			- 44
D31	Subsidies on products						- 8			- 8
D39	Other subsidies on production	- 35	0	0	- 1	0	- 36			- 36
B2n	Operating surplus, net	117	45	14	60	4	240			240
B3n	Mixed income, net				432		432			432
Allocation of primary income account										
D1	Compensation of employees							6		6
D2	Taxes on production and imports									0
D3	Subsidies									0
D4	Property income	135	189	42	41	6	413	63		476
B5n	Balance of primary income, net / National income, net	71	5	196	1 384	5	1 661			1 661
Secondary distribution of income account										
D5	Current transfers	98	277	248	582	7	1 212	17		1 229
D51	Current taxes on income, wealth, etc.	24	10	0	178	0	212	1		213
D54	Other current transfers	12	62	136	71	2	283	16		299
	Disposable income, net	45	2	315	1 222	39	1 623			1 623
Use of disposable income account										
P3	Final consumption expenditure			368	1 015	16	1 399			1 399
D7	Change in pension entitlements	0	11	0		0	11	0		11
B8g	Saving, gross	182	1	- 23	260	26	446			446
B8n	Saving, net	45	- 9	- 53	218	23	224			224
B12	Current external balance							- 32		- 32

Table 16.4: Summary current account with sector details – resources

		Resources								
Code	Transactions and balancing items	S11 Non-financial corporations	S12 Financial corporations	S13 General government	S14 Households	S15 NPISHs	S1 Total economy	S2 Rest of the world	Goods and services	Total
P8	Imports of goods and services							499		499
P7	Exports of goods								540	540
Production account										
P1	Output	1 753	102	440	1 269	40	3 604			3 604
P2	Intermediate consumption								1 883	1 883
D21	Taxes on products						141			141
D31	Subsidies on products (-)						- 8			- 8
B1g	Value added, gross / Gross domestic product									
P6	Consumption of fixed capital									
B1n	<i>Value added, net / Net domestic product</i>									
B11	<i>External balance of goods and services</i>									
Generation of income account										
B1n	<i>Value added, net / Net domestic product</i>	717	63	158	533	28	1 632			1 632
D1	Compensation of employees									
D2	Taxes on production and imports									
D21	Taxes on products									
D29	Other taxes on production									
D3	Subsidies									
D31	Subsidies on products									
D39	Other subsidies on production									
B2n	<i>Operating surplus, net</i>									
B3n	<i>Mixed income, net</i>									
Allocation of primary income account										
	Operating surplus, gross	254	55	44	92	7	452			459
	Mixed income, gross				442		442			442
	<i>Operating surplus, net</i>	117	45	14	60	4	240			247
	<i>Mixed income, net</i>				432		432			432
D1	Compensation of employees				773		773	2		775
D2	Taxes on production and imports			235			235			235
D3	Subsidies			- 44			- 44			- 44
D4	Property income	89	149	33	160	7	438	38		476
B5n	<i>Balance of primary income, net / National income, net</i>									0
Secondary distribution of income account										
	Balance of primary incomes, gross / National income, gross	208	15	226	1 426	8	1 883			1 883
	<i>Balance of primary income, net / National income, net</i>	71	5	196	1 384	5	1 661			1 661
D5	Current transfers	72	274	367	420	41	1 174	55		1 229
D51	Current taxes on income, wealth, etc.			213			213	0		213
D54	Other current transfers	6	62	104	36	36	244	55		299
	<i>Disposable income, net</i>									
Use of disposable income account										
	Disposable income, gross	182	12	345	1 264	42	1 845			1 845
	<i>Disposable income, net</i>	45	2	315	1 222	39	1 623			1 623
P3	Final consumption expenditure								1 399	1 399
D7	Change in pension entitlements				11		11	0		11
B8g	Saving, gross									
B8n	<i>Saving, net</i>									
B12	<i>Current external balance</i>									

Table 16.5: Summary of the accumulation accounts and balance sheets with sector details – assets and changes in assets

Changes in assets		Changes in assets							
Code	Transactions and balancing items	S11	S12	S13	S14	S15	S1	S2	Total
		Non-financial corporations	Financial corporations	General government	Households	NPIs	Total economy	Rest of the world	
Capital account									
B8n	<i>Saving, net</i>								
B12	<i>Current external balance</i>								
P5g	Gross capital formation	278	9	40	68	19	414		414
P51n	Net capital formation	141	-1	10	26	16	192		192
P51g	Gross fixed capital formation	250	9	37	61	19	376		376
P6	Consumption of fixed capital	-137	-10	-30	-42	-3	-222		-222
<i>Gross fixed capital formation by type of asset</i>									
AN11	Changes in inventories	26	0	0	2	0	28		28
AN12	Acquisitions less disposals of valuables	2	0	3	5	0	10		10
AN13	Acquisitions less disposals of non-produced assets	-7	0	2	4	1	0		0
D8r	Capital transfers, receivable								
D8p	Capital transfers, payable								
<i>Net lending (+) / net borrowing (-)</i>		-72	-15	-93	206	3	29	-29	0
Financial account									
Net acquisition of financial assets/liabilities		63	167	-6	220	6	450	37	487
F1	Monetary gold and SDRs		-1				-1	1	0
F2	Currency and deposits	19	10	-22	85	5	97	11	108
F3	Debt securities	7	62	3	10	0	82	9	91
F4	Loans	19	52	3	3	0	77	4	81
F5	Equity and investment fund shares	10	28	3	76	0	117	2	119
F6	Insurance, pension and standardised guarantee schemes	1	7	1	39	0	48	0	48
F7	Financial derivatives and employee stock options	3	8	0	3	0	14	0	14
F8	Other accounts receivable/payable	4	1	6	4	1	16	10	26
Other changes in the volume of assets account									
Total other changes in volume		14	-2	1	2	0	15		15
AN1	Produced assets	-2	-2	-3	0	0	-7		-7
AN2	Non-produced assets	14	0	3	0	0	17		17
AF	Financial assets	2	0	1	2	0	5		5
AF8	Other accounts receivable/payable						0		0
Revaluation account									
AN	Non-financial assets	144	4	44	80	8	280		280
AF	Financial assets/liabilities	8	57	1	16	2	84	7	91
AN	Non-financial assets	101	3	32	56	6	198		198
AF	Financial assets/liabilities	18	71	8	36	3	136	12	148
AN	Non-financial assets	43	1	12	24	2	82		82
AF	Financial assets/liabilities	-10	-14	-7	-20	-1	-52	-5	-57
AN	<i>Non-financial assets</i>	2 351	93	789	1 429	159	4 821		4 821
AF	<i>Financial assets/liabilities</i>	782	3 421	396	3 260	172	8 031	805	8 836
AN	Non-financial assets	308	1	56	109	25	499		499
AF	Financial assets/liabilities	73	224	-4	238	8	539	44	583
AN	Non-financial assets	2 659	94	845	1 538	184	5 320		5 320
AF	Financial assets/liabilities	855	3 645	392	3 498	180	8 570	849	9 419

Table 16.5: Summary of the accumulation accounts and balance sheets with sector details – liabilities, net worth and changes in them

Code	Transactions and balancing items	Changes in liabilities and net worth								
		S11 Non-financial corporations	S12 Financial corporations	S13 General government	S14 Households	S15 NPISHs	S1 Total economy	S2 Rest of the world	Goods and services	Total
Capital account										
B8n	<i>Saving, net</i>	45	-9	-53	218	23	224			224
B12	<i>Current external balance</i>							-32		-32
P5g	Gross capital formation								414	414
P51n	<i>Net capital formation</i>								192	192
P51g	Gross fixed capital formation								376	376
P6	Consumption of fixed capital								-222	-222
AN11	<i>Gross fixed capital formation by type of asset</i>									
AN12	Changes in inventories								28	28
AN13	Acquisitions less disposals of valuables								10	10
NP	Acquisitions less disposals of non-produced assets								0	0
D8r	Capital transfers, receivable	33	0	6	23	0	62	4		66
D8p	Capital transfers, payable	-16	-7	-34	-5	-3	-65	-1		-66
	<i>Changes in net worth due to saving and capital transfers</i>	62	-16	-81	236	20	221	-29		192
	<i>Net lending (+) / net borrowing (-)</i>									
Financial account										
	<i>Net lending (+) / net borrowing (-)</i>	-72	-15	-93	206	3	29	-29		0
	Net acquisition of financial assets/liabilities	135	182	87	14	3	421	66		487
F1	Monetary gold and SDRs									
F2	Currency and deposits		73	37			110	-2		108
F3	Debt securities	6	31	34	0	0	71	20		91
F4	Loans	17	0	6	10	3	36	45		81
F5	Equity and investment fund shares	83	22				105	14		119
F6	Insurance, pension and standardised guarantee schemes		48	0			48	0		48
F7	Financial derivatives and employee stock options	3	8	0	0	0	11	3		14
F8	Other accounts receivable/payable	26		10	4		40	-14		26
Other changes in the volume of assets account										
	Total other changes in volume	-3	2	-1	0	0	-2			-2
AN1	Produced assets									
AN2	Non-produced assets									
AF	Financial assets	-3	2	-1	0	0	-2			-2
AF8	Other accounts receivable/payable									
	<i>Changes in net worth due to other changes in volume of assets</i>	17	-4	2	2	0	17			
Revaluation account										
<i>Nominal holding gains and losses</i>										
AN	Non-financial assets									
AF	Financial assets/liabilities	18	51	7	0	0	76	3		79
	<i>Changes in net worth due to nominal holding gains/losses</i>	134	10	38	96	10	288	4		292
<i>Neutral holding gains and losses</i>										
AN	Non-financial assets									
AF	Financial assets/liabilities	37	68	13	5	3	126	6		132
	<i>Changes in net worth due to neutral holding gains/losses</i>	82	6	27	87	6	208	6		214
<i>Real holding gains and losses</i>										
AN	Non-financial assets									
AF	Financial assets/liabilities	-19	-17	-6	-5	-3	-50	-3		-53
	<i>Changes in net worth due to real holding gains/losses</i>	52	4	11	9	4	80	-2		78
Opening balance sheet										
AN	Non-financial assets									
AF	Financial assets/liabilities	3 221	3 544	687	189	121	7 762	1 074		8 836
	<i>Net worth</i>	-88	-30	498	4 500	210	5 090	-269		4 821
Total changes in assets and liabilities										
AN	Non-financial assets									
AF	Financial assets/liabilities	150	235	93	14	3	495	69		564
	<i>Changes in net worth, total</i>	231	-10	-41	333	30	535	4		539
<i>Changes in net worth due to:</i>										
	<i>Saving and capital transfers</i>	62	-16	-81	236	20	230	0		230
	<i>Other changes in volume of assets</i>	17	-4	2	2	0	17			17
	<i>Nominal holding gains/losses</i>	134	10	38	96	10	288	4		292
Closing balance sheet										
AN	Non-financial assets									
AF	Financial assets/liabilities	3 371	3 779	780	203	124	8 257	1 143		9 400
	<i>Net worth</i>	143	-40	457	4 833	240	5 625	-265		5 360

3. The goods and services account

16.71 In the integrated economic accounts, the goods and services account is shown in a column, not in a row. It reflects the various transactions in goods and services that appear in the accounts of the institutional sectors. Intermediate consumption and final consumption appear as uses in the institutional accounts on the left-hand side of the accounts. For the goods and services account, they appear in the *right*-hand side column, even though the right-hand side is generally reserved for resources and consumption is a use. This device of using the opposite side of the account from normal gives a balance for the row for each of the items appearing in the goods and services account. On the resources side of the table, the figures appearing in the column for goods and services are the counterparts of the uses made by the various sectors and the rest of the world: exports (540), intermediate consumption (1 883), final consumption expenditure/actual final consumption (1 399), gross fixed capital formation (376), changes in inventories (28) and acquisitions less disposals of valuables (10). On the use side of the table, the figures in the column for goods and services are the counterparts of the resources of the various sectors and the rest of the world: imports (499) and output (3 604). On the same side taxes less subsidies on products (133) are shown directly in the column for goods and services. They are a component of the value of the supply of goods and services that has no counterpart in the value of the output of any institutional sector.

4. The total economy column

16.72 The columns for the total economy remain to be explained. Except for taxes less subsidies on products and gross and net domestic product, the figures in these columns are simply the sum of the corresponding figures for the institutional sectors. The production account for the total economy includes, as resources, output (that is, the total output of the economy (3 604)) and taxes less subsidies on products (133), the latter being the counterpart of the figure appearing on the left-hand side in the column for goods and services. The uses side of the production account for the total economy shows intermediate consumption (1 883) and domestic product at market prices (1 854 gross, 1,632 net). The latter is the sum of value added of the various sectors and taxes less subsidies on products. Domestic product then appears on the right-hand side as a resource of the generation of income account for the total economy. Taxes less subsidies on products are shown again on the left-hand side in the column for total economy and on the right-hand side as a resource of government (and the rest of the world if relevant). This double routing of taxes less subsidies on products is made in order to get domestic product, gross and net, directly in the overall accounts, as explained above.

16.73 The other items in the columns for the total economy are self-explanatory. Net national income at market prices (1 661) is shown directly as the sum of balance of primary incomes of the various sectors; national disposable income, national saving, etc. are also obtained directly.