CHAPTER

9 Other Changes in Financial Assets and Liabilities Account

A. Concepts and Coverage

Reference:

2008 SNA, Chapter 12, The Other Changes in Assets Accounts.

9.1 *In the international accounts, the other changes in financial assets and liabilities account shows changes in financial positions that arise for reasons other than transactions between residents and nonresidents.* These changes are also called "other flows." Examples include the unilateral cancellation of debt by the creditor, holding gains and losses, and reclassifications (including arising from resident-to-resident transactions in financial assets issued by nonresidents). In international accounts, other changes are recorded only for financial assets and liabilities because the international investment position relates only to external financial assets and liabilities.

9.2 While sometimes derived as residual items, other changes are economic events that are important in their own right and should be shown separately from transactions. They serve to demonstrate significant changes to the value and composition of items in the balance sheet due to events that have important economic consequences.

9.3 Other changes differ from transactions in terms of their economic nature and accounting entries. A transaction is an interaction between two institutional units by mutual agreement or operation of the law, whereas other changes are changes in the value or volume of assets and liabilities that arise from other economic events. Each transaction involves two accounting entries for each party, as does reclassification, but other events recorded in this account involve a single entry for each party. For additional aspects of accounting for other changes, see also paragraphs 3.19–3.21 (types of other flows), 3.60 (timing), and 3.81–3.83 (valuation).

9.4 Table 9.1 shows an overview of the other changes in financial assets and liabilities account. The balancing item for the account is net changes in net IIP arising from other changes.

9.5 Together with the financial account, the other changes in financial assets and liabilities explain changes in the IIP. In other words, financial assets and liabilities gain or lose value and appear or disappear as a result of transactions, other volume changes, or revaluation. This relationship can be expressed as the following identity:

Beginning of period position

\+ Transactions during the period

\+ Other changes in volume during the period

\+ Revaluation during the period:

Of which, due to:

- exchange rate changes and
- other price changes

= End of period position.

(Table 7.1 also shows this relationship.)

9.6 The other changes in financial assets and liabilities account can be presented by the type of asset or liability as well as by the type of other flow. The classification by type of asset or liability should be consistent with that used in the IIP and financial account to facilitate analysis of particular assets and a comprehensive view of asset and liability positions. The other changes in assets and liabilities account can also be considered in conjunction with investment income from the income account, to obtain another view of the return on financial assets and liabilities. As noted in paragraph 9.32, some retained earnings affect the owners' equity through the other changes account, whereas others affect equity through an imputed transaction.

Table 9.1. Overview of the Other Changes in Financial Assets and Liabilities Account

	Other changes in volume	Revaluations	
		Exchange rate changes	Other price changes
Net changes in financial assets due to other changes			
Direct investment			
Portfolio investment			
Financial derivatives (other than reserves) and employee stock options			
Other investment			
Reserve assets			
Total			
Of which:			
Equity and investment fund shares			
Debt instruments			
Other financial assets and liabilities			
Net changes in liabilities due to other changes			
Direct investment			
Portfolio investment			
Financial derivatives (other than reserves) and employee stock options			
Other investment			
Total			
Of which:			
Equity and investment fund shares			
Debt instruments			
Other financial assets and liabilities			
Changes in net IIP arising from other changes			

Note: This table is expository; for Standard Components, see Appendix 9.

B. Other Changes in the Volume of Financial Assets and Liabilities

9.7 *Other changes in the volume of financial assets and liabilities are any changes in the value of these assets that are due neither to transactions nor to revaluation. These changes include those due to cancellation and write-offs, economic appearance and disappearance of assets, reclassification, and the changes in financial assets arising from entities changing their economy of residence.* Because of the heterogeneous nature of other changes in volume, analysts may sometimes wish to identify the major components. Changes in volume can occur because of transactions or other changes in volume.

1. Cancellation and write-offs

9.8 A number of circumstances may lead to reduction or cancellation, by other than normal repayment, of liabilities. Debt assumption and debt forgiveness involve transactions and are discussed in paragraphs 8.42–8.45 and 13.22–13.23, respectively. Valuation changes associated with debt reorganization are dealt with in paragraph 9.29. Debt reorganization and related issues are discussed in more detail in Appendix 2.

9.9 Changes in claims resulting from write-offs are excluded from the financial account. Specifically, a creditor may recognize that a financial claim can no longer be collected because of bankruptcy or other factors and it may remove the claim from its balance sheet.[1] This recognition (by the creditor) should be accounted for as other changes in volume of assets. (The corresponding liability should also be removed from the balance sheet of the debtor.)

[1]Usually, debt is written off as uncollectible because of the bankruptcy or liquidation of the debtor; however, it may sometimes be written off for other reasons, such as a court order. The write-off may be full or partial; partial write-offs may arise, for example, under a court order, or if the liquidation of the debtor's assets will allow some of the debt to be settled. Recognition that the debt is uncollectible should be distinguished from internal accounting provisions of the creditor for the possibility of default (such as adjustments to fair value, nonperforming loans). Although such provisions may be useful for analysis, they do not mean that the debt should no longer be recognized as existing.

9.10 Unilateral cancellation of a financial claim by a debtor (debt repudiation) is not recognized. Debt forgiveness, which is a capital transfer, usually concerns government debt; most commercial situations where the impossibility of debt collection is recognized by the creditor are treated as write-offs.

9.11 Governments or other institutional units may take possession of the assets of other institutional units, including nonresident units, without full compensation for reasons other than the payment of taxes, fines, or similar levies. If the compensation falls substantially short of the values of the assets as shown in the balance sheet, the difference should be recorded in other changes in volume as an increase in assets for the institutional unit doing the seizing and a decrease in assets for the institutional unit losing the asset. Such actions are called uncompensated seizures of assets in the *2008 SNA*. For seizures between residents and nonresidents relating to nonfinancial assets, a supplementary item can be recorded.

9.12 If an employee stock option is extinguished between the grant and vesting dates (e.g., if the employee departs) without an agreed settlement between the parties, an other change in volume is recorded (namely, a loss of an asset by the employee and a reduction of liabilities by the employer).

2. Reclassifications

9.13 A reclassification entry is necessary when a financial asset or liability changes its characteristics or status without there having been a cross-border transaction. In contrast to reclassifications, other cases—such as changes such as conversion of a convertible bond (see paragraph 8.29) and exercise of a warrant (see paragraph 5.87)—are shown as transactions involving repayment of the original instrument and creation of a new one because they arise from bilateral agreements.

Tradable loans

9.14 A loan may become a security in the circumstances discussed in paragraph 5.45. In that case, the deduction of nominal value of the old loan is a reclassification, as is the appearance of the new security at market prices.

Change in contractual terms

9.15 The original terms of a contract may provide that the maturity and interest rate terms change as a result of an event such as a default or decline in credit rating; then this involves a reclassification. In contrast, a change in the terms as a result of renegotiation by the parties is a transaction, and thus is shown as a repayment of the old instrument and issue of a new one in the financial account.

Transactions in existing assets

9.16 Transactions in existing assets can result in changes in the composition of assets and liabilities in the IIP. As noted in paragraph 3.7, when a financial instrument issued by a nonresident is sold by a resident in one institutional sector to a resident in another sector, the composition of assets in the IIP is changed by a reclassification entry.

Changes in functional category

9.17 As a result of a change in the relationship between the parties or change in the liquidity of assets, the functional category may be changed. For example, if the relationship between the parties changes to direct investment because an investor adds to its holdings and so qualifies as a direct investor, the previous holdings would be reclassified to direct investment. (See also paragraph 6.36.) Another example is a loan that is reclassified as securities (see paragraph 5.45) and so from other investment to portfolio investment.

Monetization and demonetization of gold bullion

9.18 A special case of change in classification occurs for gold bullion. Gold bullion can be a financial asset (monetary gold) or a good (nonmonetary gold), depending on the holder and the motivation for holding. Monetization is the change in the classification of gold bullion from nonmonetary to monetary. Demonetization is change in the classification of gold bullion from monetary to nonmonetary. The treatment of particular transactions is as follows:

(a) When a monetary authority sells gold bullion that is a reserve asset to a nonresident entity that is not a monetary authority or international financial organization, an entry for nonmonetary gold is recorded in the goods and services account. Demonetization of the gold bullion occurs immediately before the transaction and is shown in the other changes in assets and liabilities account of the monetary authority.

(b) When a monetary authority sells gold bullion that is a reserve asset to a resident entity that is not a monetary authority, there is no interna-

tional transaction. As in case (a) above, demonetization of the gold bullion occurs immediately before the transaction.

(c) When a monetary authority purchases gold bullion from a nonresident that is not a monetary authority or international financial organization, the transaction is recorded in nonmonetary gold in the goods and services account. Monetization of the gold bullion occurs immediately after the transaction and is shown in the other changes in assets and liabilities account of the monetary authority.

(d) When a monetary authority purchases gold bullion from a resident for its reserve assets, there is no international transaction. As in case (c) above, monetization of the gold bullion occurs immediately after the transaction.

(e) When buyer and seller are monetary authorities of different economies and both hold the gold bullion as part of their reserve assets, there is a transaction in gold bullion (recorded in the financial account; see paragraph 8.55). The same treatment applies for transactions in gold bullion between a monetary authority and an international financial organization.

(f) If the monetary authorities deposit gold bullion that they own in an unallocated gold account, the gold bullion is demonetized immediately before the transaction. If the account is with a nonresident, a transaction in nonmonetary gold is recorded in the goods and services account with a corresponding entry in currency and deposits, and then a reclassification to monetary gold—unallocated gold accounts—if held as a reserve asset. However, if the deposit is with another monetary authority or an international financial institution, transactions in monetary gold are recorded (see paragraph 6.80).

(g) Similarly, if the monetary authorities withdraw gold bullion from an unallocated gold account held as a reserve asset, a reclassification to currency and deposits is recorded before the transaction. As the account is with a nonresident, a transaction in currency and deposits is recorded with a corresponding entry in nonmonetary gold in the goods and services account. The gold bullion is monetized as monetary gold—gold bullion, if held as a reserve asset. However, if the deposit is with another monetary authority or an international financial institution, transactions in monetary gold are recorded (see paragraph 6.80).

(h) In other cases, gold bullion is nonmonetary at all times and any international transactions are recorded in nonmonetary gold under goods (as discussed in paragraphs 10.50–10.54).

(The above cases relating to a monetary authority also apply to an international financial organization.)

Reclassification of unallocated gold accounts

9.19 Unallocated gold accounts are classified as currency and deposits unless they are held by the monetary authorities as part of reserve assets. Unlike gold bullion, unallocated gold accounts have counterpart liabilities. To be classified as monetary gold, the unallocated gold accounts must be held as part of reserve assets, and so the counterpart liability is necessarily on a nonresident.

9.20 If a monetary authority acquires an unallocated gold account to be classified as reserve assets, it is recorded first as a transaction in currency and deposits and then reclassified to monetary gold (unallocated gold accounts) as a change of classification in the other changes in the volume of assets and liabilities account of the monetary authority. Removing an unallocated gold account from reserve assets is recorded as, first, a change in classification from monetary gold to a currency and deposit in the other changes in the volume account and then a transaction in currency and deposits. However, transactions between monetary authorities and with international financial institutions are recorded as transactions in unallocated gold accounts within monetary gold if the unallocated account is held as a reserve asset.

3. Financial assets and liabilities of persons and other entities changing residence

9.21 The conditions under which entities can change their economy of residence were discussed in Chapter 4. When persons and other entities change their economy of residence, their existing financial assets and liabilities are added to or removed from the IIP through a reclassification, not by imputing transactions in the balance of payments. The change in the residence does not involve a transaction between two entities, but a change in the status of a single entity. Because of the treatment of ownership of land and buildings, as well as certain other cases (discussed in paragraphs 4.34–4.40), notional units may be created or eliminated

as a result of the change in residence status of an owner. The treatment of change in residence applies to all the financial assets and liabilities, not just those that are shifted to the new economy of residence.

9.22 In addition to change in the status of existing assets, new financial claims and liabilities may be created by transactions around the time of change of residence. For example, new bank accounts may be created in the new economy of residence. In those cases, the treatment is determined by the residence status of the owner at the time of the transaction. If the relation of the timing of the transaction and the change of residence is unknown or effectively simultaneous, a convention can be adopted, such as that the change of residence occurs first.

9.23 Corporations sometimes change residence. Most cases labeled as corporate migration involve moving assets between entities (see paragraph 8.19 on corporate inversion). However, in the exceptional case when corporate change of residence occurs (see paragraph 4.167), the change in the residence of the owner of financial assets and liabilities is treated as a reclassification, in the same way as a change of residence of individuals.

4. Insurance reserves, pension entitlements, and provisions for standardized guarantee schemes

9.24 Changes in model assumptions can give rise to other changes in the volume of insurance reserves, pension entitlements, and provisions for standardized guarantee schemes. For an annuity, the relationship between premiums and benefits is usually determined when the contract is entered into, taking account of mortality data available at that time. Any subsequent changes will affect the liability of the annuity provider towards the beneficiary, with the consequent changes in provisions recorded as other changes in volumes. In contrast to changes in model assumptions, changes in pension entitlements negotiated between the parties are transactions, so would be classified as current or capital transfers.

C. Revaluation

9.25 *Revaluations occur because of a change in the monetary value of a financial asset or liability due to changes in the level and structure of its price*. Revaluations may also be called holding gains or losses. As the term suggests, holding gains or losses are changes in the value of an asset that accrue purely as a result of holding assets over time without transforming them in any way. A holding gain occurs when an asset increases in value or a liability decreases in value; a holding loss occurs when an asset decreases in value or a liability increases in value. Common causes of revaluation are, for equity, changes in expectations of future incomes and, for debt securities, changes in market yields and the creditworthiness of the debtor.

9.26 Because of the importance of instruments denominated in foreign currencies in the IIP and their different behavior, the values of revaluation are separated into those due to two factors:

(a) exchange rate changes and

(b) other price changes.

9.27 Exchange rate changes show all the changes that result from exposure to the effect of exchange rates, whereas the other price changes show other causes such as asset price volatility. Revaluation takes into account all price changes during the period, whether realized or not. Holding gains and losses are realized when the asset is sold or liability extinguished. Holding gains and losses on unsold assets and unpaid liabilities are unrealized, but are recorded as revaluation in the other changes in financial assets and liabilities account.

9.28 An exact measure of the factors could be made by tracking each instrument held, bought, or sold during the period. In practice, an approximation can be derived from balance sheet aggregates for each currency of denomination, to separate revaluation into exchange rate changes and other price changes, according to the following steps:

- Step 1: The effect of revaluation due to other price changes is derived for each class of instrument and currency of denomination by subtracting changes due to transactions and other changes in volume from the total change in positions. Because exchange rate changes are always zero in the currency of denomination, all revaluation when expressed in the currency of denomination is due to other price changes. (The currency of denomination is discussed in paragraphs 3.95–3.107.)

- Step 2: The beginning and end of period positions, and changes due to transactions, other volume changes, and revaluation due to other price changes (as derived in Step 1) are converted to the currency of international accounts compilation using the appropriate exchange rates. Positions are converted by the exchange rate at the relevant date.

Ideally, transactions and other flows would be converted at the exchange rate at the time of each event or flow. In the example in Box 9.1, flows are converted at the average exchange rate, which is an approximation that assumes that flows, price changes, and exchange rate movements occurred evenly through the period. If an average exchange rate is used, an average of daily exchange rates is preferable as an approximation. (An average of beginning and end of period rates could be misleading when rates did not move evenly through the period.) Currency conversion is discussed in paragraphs 3.104–3.108.

- Step 3: The effect of revaluation due to exchange rate changes is derived for each class of instrument and currency of denomination by subtracting changes due to transactions, other changes in volume, and revaluation due to other price changes from the total change in positions. The exchange rate effects are always zero on instruments denominated in the currency of international accounts compilation (with the exception set out in paragraph 9.31).

Step 1 needs to be calculated for each currency of denomination by type of instrument, although in practice currencies that represent a small proportion of the total may be combined. For instruments that are valued at nominal prices, there can be exchange rate effects, but no other price changes. A numerical example is given in Box 9.1.

1. Debt reorganization

9.29 A debtor and creditor may change the terms of a debt agreement. The terms may be changed such that the value of the new claim differs from the value of the old claim. In commercial situations, differences in values between old and new claims are generally treated as a valuation change. Debt cancellation and write-offs are other volume changes and were discussed in paragraphs 9.8–9.11. However, as noted in paragraph 13.23, if there is an intention to convey a benefit, the change may be treated as a capital transfer. Debt reorganization is discussed in further detail in Appendix 2.

2. Financial derivatives and employee stock options

9.30 The exchanges of claims and obligations at the inception of a derivative contract are financial transactions creating asset and liability positions that normally have, at inception, zero value if the instrument is a forward-type contract and value equal to the total premium payable if the instrument is an option. Changes in the value of derivatives due to change in the underlying item are recorded as revaluation. (Changes in the value of derivatives to or from zero are classified as revaluation, not economic appearance or disappearance of assets.) The settlement of a financial derivative position is a transaction, recorded in the financial account. Changes in the values of employee stock options at or after the vesting date are revaluations (see paragraphs 3.59, 7.39, and 11.20). (In practice, it may be feasible to recognize the revaluation only at exercise date.)

9.31 Financial derivatives that include a foreign exchange risk are a case where the steps for separating exchange rate and other revaluation, as stated in paragraph 9.28, are not applicable. In those cases, a valuation change due to exchange rate changes can arise even in the currency of denomination of the instrument. In some cases, such as cross-currency swaps that are also interest rate swaps, it may not be practical to separate exchange rate changes from other revaluation, so a convention that all revaluation effects are due to exchange rate effects may be adopted.

3. Implications of different treatments of retained earnings

9.32 In cases where retained earnings are not imputed as being payable to the owners, these earnings contribute to revaluation. The *SNA* and international accounts have two treatments for retained earnings:

- For direct investors' equity in their direct investment enterprises and for investment fund shares, retained earnings are imputed as being payable to the owners and reinvested as an increase in their equity. (The primary income account entries are discussed in paragraphs 11.33–11.47; the corresponding financial account entries in paragraphs 8.15–8.16 and 8.28.) Similarly, insurance and pension fund reserves and provisions for calls under standardized guarantees include property income attributed to policyholders. (The primary income account entries are discussed in paragraphs 11.77–11.84.)
- In other cases of equity, there is no imputation of income or financial account transactions to the owners on account of retained earnings. The result is that the increase in the value of the equity caused by the accumulation of retained earnings is reflected in increased value in the IIP without a transaction and is, therefore, shown as a result of revaluation.

Box 9.1. Example of Calculation of Revaluation Due to Exchange Rate Changes

The steps are described in paragraph 9.28. The data in normal text are given; the data in bold are derived.

Step 1. Derivation of other revaluation in terms of the currency of denomination of the instrument (in this case, €):

Other revaluation can be derived as 8, i.e., 50 (end of period position) – 30 (beginning of period position) – 12 (net transactions) – 0 (other volume changes) = 8.

Step 2. Conversion of currency of denomination to the currency used for compilation of international accounts statistics (in this case from € to domestic currency):

Beginning of period positions are multiplied by 2; flows by 2.5 (rate derived as the average rate on the period); and end of period positions by 3.

Step 3. Derivation of exchange rate changes in the currency used for compilation of international accounts statistics: For the bonds denominated in €, revaluation due to exchange rate changes can be derived as 150 (end of period position) – 60 (beginning of period position) – 30 (net change due to transactions) – 20 (net change due to other revaluation) = 40.

	Beginning of period position	Net transactions during period	Other volume changes	Step 1 other revaluations	Revaluation due to exchange rate changes	End of period position
Values in currency of denomination:						
Bonds denominated in € (in €)	30	12	0	8	0	50
Exchange rate (domestic currency per €)	2	2.5		2.5		3
Values in currency of compilation:	**Step 2**	**Step 2**	**Step 2**	**Step 2**	**Step 3**	**Step 2**
Bonds denominated in € (in dom. curr.)	**60**	**30**	**0**	**20**	**40**	**150**

(Use of average exchange rates in Step 2 is an approximation, as discussed in Step 2 of paragraph 9.28. Preferably, exchange rates at the time of the event would be used.)

4. Implications of trading of instruments that are recorded at nominal values in positions

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

5. Implications of treatment of interest

9.34 Any indexation amounts not included in interest are classified as revaluation. The treatment of interest on index-linked instruments is discussed in more detail in paragraphs 11.59–11.65.

9.35 Revaluation arises from changes in market yields on fixed-interest debt securities. The value of interest is determined by the yield to maturity at inception (see paragraphs 11.52–11.53), so the effect of any subsequent change in the value of the security due to changes in market interest rates is classified as being due to revaluation.