

# Chapter 12

## Earned Income Account

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### A. Overview of the Earned Income Account

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Reference:

2025 SNA, Chapter 8, Earned Income Accounts and Chapter 25, Selected issues in financial instruments; Section E, Recording of flows associated with financial assets and liabilities.

**12.1** *The earned income account records income flows earned by institutional units as a consequence of their involvement in processes of production or ownership of assets that may be needed for purposes of production.* In the SNA, earned income is recorded in two accounts, namely, the generation of earned income account (which records earned income generated in the production process) and the allocation of earned income account (which records earned income allocated to institutional units for the provision of labor, financial assets, and nonproduced nonfinancial assets). In the external accounts, all earned income flows relate to the allocation of earned income account.

**12.2** The main components and structure of the account are shown in Table 12.1. Credit/revenue entries reflect earned income receivable by the compiling economy and debit/expenditure entries reflect earned income payable by the compiling economy. The balance on earned income shows net earned income receivable by the compiling economy, which is defined as the total value of earned income receivable by the compiling economy less the total value of earned income payable.

**12.3** Two types of earned income are distinguished:

- (a) Income associated with the production process. Remuneration of employees income for the contribution of labor inputs to the production process. Taxes on production and on imports, and subsidies are also income related to production; and
- (b) Income associated with the ownership of financial and nonproduced nonfinancial assets. *Property income is the income receivable by the owner of a financial asset or the owner of a nonproduced natural resource or another nonproduced nonfinancial asset in return for providing funds to, or putting the non-financial assets at the disposal of, another institutional unit.* Property income is therefore made up of investment income and rent. *Investment income is the income receivable by the owner of a financial asset in return for providing funds to another institutional unit.* Investment income consists of dividends and withdrawals from income of quasi-corporations, reinvested earnings, and interest. However, ownership of financial derivatives and employee stock options does not give rise to investment income. The relationship between financial assets and the type of investment income they generate is shown in Table [5.2]. Rent is described in more detail below.

**12.4** Cross-border earned income flows provide a link between the concept of gross domestic product (GDP) and gross national income (GNI). GDP is linked to the concept of production, in which value added is generated. Contributors to the value added (such as labor, finance, and entrepreneurship) receive returns for their contributions. The economic process of income generation from production together with earned income distributions result in the GNI for an economy. The difference between the GNI and GDP is equal to the difference of earned income receivable from nonresidents and earned income payable to nonresidents, often described as “net income from abroad.” When labor, financial resources, and nonproduced nonfinancial assets owned by residents are put at the use of nonresidents, earned income is received. When labor, financial resources, and nonproduced nonfinancial assets owned by nonresidents are put at the use of residents, earned income is paid. GNI is larger (smaller) than GDP if more (less) income is generated from the provision of labor, financial resources, and nonproduced nonfinancial assets owned by residents to nonresidents than the similar income payable to nonresidents.

**12.5** Earned income should be distinguished from transfer income. Earned income captures returns for the provision of labor and financial assets and renting of nonproduced nonfinancial assets. Transfer income captures further redistribution of income through current transfers, such as by governments or charitable organizations. Transfer income is described in Chapter 13.

Table 12.1. Overview of the Earned Income Account

	Credits/ Revenues	Debits/ Expendi- tures
<b><i>Balance of goods and services</i></b>		
<b>Remuneration of employees</b>		
<b>Investment income</b>		
Direct investment <sup>1</sup>		
Income on equity		
Dividends and withdrawals from income of quasi-corporations		
Reinvested earnings		
Interest and similar returns		
Portfolio investment		
Income on equity and investment fund shares		
Dividends on equity other than investment fund shares		
Investment income attributable to investment fund shareholders		
Dividends on investment fund shares		
Reinvested earnings on investment fund shares		
Interest and similar returns		
Other investment		
Income on equity and investment fund shares		
Interest and similar returns		

Investment income attributable to policyholders in insurance, standardized guarantees, and pension funds		
Reserve assets		
Income on equity and investment fund shares		
Interest and similar returns		
<b>Other earned income</b>		
Rent		
Taxes on production and on imports		
Subsidies		
<b>Total earned income credits/revenues and debits/expenditures</b>		
<b>Balance on earned income</b>		
<b>Balance on goods, services, and earned income</b>		

Note: This table is expository; for standard components, see appendix [9].

<sup>1</sup>Investment income attributable to insurance policyholders is included in the interest and similar returns component of direct investment (see paragraph [12.96]).

**12.6** The structure of the earned income account is consistent with that of the corresponding financial flows and positions, thus facilitating the analysis of rates of return. For example, rent is shown separately so that it is not mixed with returns on financial assets. Investment income attributable to policyholders in insurance standardized guarantees and pension funds is also to be shown as a separate item, if relevant. Specific further groupings of earned income are discussed in the subsequent sections.

**12.7** Section B of this chapter discusses the coverage, timing, and valuation issues for each type of earned income (remuneration of employees, dividends, reinvested earnings, interest, investment income attributable to policyholders in insurance, standardized guarantees and pension funds, rent, and taxes on production and on imports, and subsidies). Section C explains specific issues and possible classification of investment

income by functional category of financial assets and liabilities (direct investment, portfolio investment, other investment, and reserve assets).

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## **B. Types of Earned Income**

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**12.8** The external accounts distinguish the following types of earned income:

1. remuneration of employees;
2. dividends and withdrawals from income of quasi-corporations;
3. reinvested earnings;
4. interest and similar returns;
5. investment income attributable to policyholders in insurance, standardized guarantees and pension funds;
6. rent; and
7. taxes on production and on imports, and subsidies.

These income categories are described in paragraphs [12.10–12.94].

**12.9** Table [12.1] presents investment income using both functional and instrument classifications of financial assets. Investment income is generally linked to a particular type of financial instrument. For example, dividends are returns on equity and investment fund shares. Sometimes, a group of financial instruments has the same type of investment income. For example, deposits, loans, and debt securities all give rise to interest. This section describes various types of investment income and other types of earned income. The next section includes a description of specific issues on investment income related to the functional categories of financial assets and liabilities.

### **1. Remuneration of employees**

**12.10** *Remuneration of employees presents total remuneration, in cash or in kind, payable by an enterprise to an employee in return for work done by the latter during the accounting period.* In the external accounts, remuneration of employees is recorded when the employer (the producing unit) and the employee are resident in different economies. For the economy where the producing units are resident, remuneration of employees is the total remuneration, in cash or in kind, payable by resident enterprises to nonresident employees in return for work done by the latter during the accounting period. For the economy where the individuals are resident, it is the total remuneration, in cash or in kind, receivable by them from nonresident enterprises in return for work done during the accounting period. Residence of enterprises and individuals is described in [Section E of Chapter 4, Economic Territory, Units, Institutional Sectors, and Residence].

**12.11** Cross-border remuneration of employees arises only when a resident individual is employed by a nonresident or when a resident employs a nonresident individual. Therefore, it is important to establish whether an employer-employee relationship exists between a resident individual and a nonresident employer or between a nonresident individual and a resident employer. An employer-employee relationship exists when there is an agreement, which may be formal or informal, between an institutional unit and an individual, normally entered into voluntarily by both parties, whereby the individual works for the unit in return for remuneration in cash or in kind. The remuneration is normally based on either the time spent at work or some other objective indicator of the amount of work undertaken. If an individual is contracted to produce a given result, it suggests a service contract relationship between the unit and a self-employed individual, rather than an employer-employee relationship. Self-employed individuals are deemed to operate their own unincorporated enterprises, and thus sell output they produce. Self-employed individuals may also employ others. Self-employed individuals are generally responsible for decisions on markets, scale of operations, and finance, and are also likely to own or rent machinery or equipment on which they work.

**12.12** When an individual performs work for an institutional unit, it may not always be clear whether an employer-employee relationship exists between the individual and the unit. Provision of several types of services may pose such problems because units may choose either to purchase a service (including those services provided remotely) from a self-employed worker or to hire an employee to perform the job. The status of the worker has

important implications for the external accounts. If an employer-employee relationship exists between the worker and the producing unit, the payment constitutes remuneration of employees. If an employer-employee relationship does not exist, the payment constitutes a purchase of services. (See Chapter 11, Services Account for specific categories of services.)

**12.13** Several factors may have to be considered in determining whether an employer-employee relationship exists. An important test of whether an employer-employee relationship exists is that of control. The right to control or to direct, both as to what shall be done and how it shall be done, is a strong indication of an employer-employee relationship. The method of measuring or arranging for the payment is not important as long as the employer has the effective control on both the method and the result of the work undertaken by the individual. However, certain control on the work being undertaken may also exist for the purchase of a service. Therefore, other criteria should also be used to define more clearly the employer-employee relationship. If the individual is solely responsible for social contributions, that would suggest that the individual is a self-employed service provider. Payment of social contributions by the employer is an indication of employer-employee relationship. If the individual is entitled to the same kind of benefits (e.g., allowances, holidays, sick leave) that the enterprise generally provides to its employees, this indicates an employer-employee relationship. Payment of taxes on the provision of services (such as sales tax or value-added tax) by the individual is an indication that the individual is a self-employed service provider.

**12.14** Cross-border employees include seasonal or other short-term workers (less than one year) and border workers who are residents of one economy and work in another economy. Nonresidents who are employed as domestic helpers or housekeepers (for less than one year) by resident households are also treated as nonresident employees. Because embassies, consulates, military bases, and so forth are considered extraterritorial to the economies in which they are located (see Chapter 4, Economic Territory, Units, Institutional Sectors, and Residence; Section E, Residence, for the definition of residence), the remuneration receivable by local (host country) staff of these institutional units is classified as payable to resident units by nonresident units. Remuneration receivable by employees from international organizations, which are extraterritorial units, represents receipts from nonresident units.

**12.14a** Remote work, also known as telecommuting, telework, work from home, and other similar terms, refers to the practice of employees working from locations other than the traditional office. When employers and employees reside in different economies, the payment for remote work should be recorded as remuneration of employees. Some employers offer their employees the opportunity to work for extended periods away from the office. Paragraph [4.126] outlines factors that need to be considered where the principal residence of the employee is difficult to establish. Remuneration of such workers is recorded in the balance of payments only if the employee is classified as being resident in a different economy than the employer.

**12.15** According to the residence principles for households as explained in paragraphs [4.116–4.130], technical assistance personnel employed by international organizations or governments on long-term assignments (for one year or more) are residents of the economy in which they live and work (unless they are government employees with diplomatic status). Similarly, employees of parent enterprises working in an affiliated enterprise in another economy for one year or more are residents of the economy in which they live and work. Although such employees continue to be legally employed and paid by the parent enterprise (which may be international organizations, foreign governments, or commercial enterprises), their employer-employee relationship may not always be clear. They should be considered employees of the institutional unit for which they work if this unit effectively manages and controls their work. The contractual arrangement for hiring or paying salaries may simply be a matter of convenience. In some cases it may be difficult to determine who is managing and controlling the work. In such cases, the workers should be considered to be employed by the unit that pays them.

**12.16** Remuneration of employees is recorded on an accrual basis. It is measured by the value of the remuneration in cash or in kind that an employee becomes entitled to receive from an employer with respect to work undertaken during the relevant period, whether paid in advance, simultaneously, or in arrears of the work itself. To the extent that payment has not been made for work performed, the economy of the employer must record an entry in the accounts payable and the economy of the employee must record an entry in the accounts receivable.

**12.17** Although not shown explicitly in the external accounts, it is helpful to note that remuneration of employees has three main components:



- (a) wages and salaries in cash,
- (b) wages and salaries in kind, and
- (c) employers' social contributions.

### ***a. Wages and salaries in cash***

**12.18** Wages and salaries in cash consist of remuneration of employees payable in cash (or any other financial instruments used as means of payments), except for social contributions payable by employers. Included are basic wages and salaries; extra pay for overtime, night work, and weekend work; cost of living allowances, local allowances, and expatriation allowances; bonuses; annual supplementary pay, such as “thirteenth month” pay; allowances for transportation to and from work; holiday pay for official holidays or annual holidays; and housing allowances. Wages and salaries in cash do not include the reimbursement by employers of expenditures made by employees in order to enable them to take up new or relocated jobs (e.g., reimbursement for travel and related expenses) or expenditures on items needed to carry out their work (e.g., tools or special clothing). These are considered acquisitions by the employer of goods and services (if the provider and employer are resident in different economies). Wages and salaries in cash include any social contributions, income taxes, etc., payable by the employee even if they are actually withheld by the employer for administrative convenience or other reasons and paid directly to tax authorities,

### ***b. Wages and salaries in kind***

**12.19** Wages and salaries in kind consist of amounts payable in the form of goods, services, interest forgone, and shares to employees in return for labor input rendered. Examples are meals; accommodation; a vehicle; sports, recreation, or holiday facilities for employees and their families; transportation to and from work; goods and services from the employer's own processes of production; bonus shares distributed to employees; and so forth. Benefits in kind should be valued at the market-equivalent price (for instance, in the case of a vehicle, the value would be the actual cost to the employer). The goods or services may be provided free or at a reduced cost. For example, when employees receive loans at reduced or zero rates of interest, the interest forgone

is the difference between the interest charged and a market-equivalent interest charge and is recorded as a continuous stream of remuneration payments. To provide a consistent and economically meaningful way of recording remuneration in kind, some “rerouting” may be involved (see paragraph [3.16] for an example of rerouting). That is, although the good or service is purchased by the employer, it is treated as if the employer paid the amount to the employee who, in turn, acquired the item. The rerouting may affect the resident-to-nonresident nature of the transaction.

**12.20** Employee stock options (ESOs) are a way of paying wages and salaries in kind. ESOs are valued by reference to the fair value of the equity underlying the ESO awarded. The value of ESOs at the time of granting provides the measure of remuneration of employees that should be recorded as accruing over the period to which the option relates, generally the period between the granting and vesting dates (see paragraph [8.41]). Sometimes, the options may cover the period before the granting date, which should also be taken into account in allocating the remuneration of employees. The value of the ESO accumulates as remuneration of employees is recorded, so that at vesting date, it has accumulated to the value of the ESO at granting. Changes in the value of ESOs at or after the vesting date are not remuneration of employees but are holding gains and losses (see paragraph [9.30]). Transactions and positions in ESOs are recorded within financial derivatives and ESOs, with a supplementary item for economies in which cross-border transactions in ESOs are significant.

**12.21** In cross-border situations, a multinational parent company may directly provide ESOs to employees of its foreign subsidiaries. The value of ESOs should be recorded as remuneration of employees payable by the subsidiary, the actual employer, and hence this transaction is domestic. The liabilities of the parent companies and acquisition of assets by the employees of the subsidiary in the form of ESOs are recorded in the respective economies’ external accounts. If the ESO is supplied free or below cost to the subsidiary, a transaction between the parent and actual employer should be imputed for the value of the ESO similar to the treatment of transfer pricing (see paragraphs [12.101–12.102]).

### ***c. Employers’ social contributions***

**12.22** *Employers' social contributions are actual and imputed social contributions payable by employers to social security funds and other social insurance schemes, to secure social benefits for their employees.* Social security schemes are operated by general government; other social insurance schemes may be operated by the employers themselves or by an insurance corporation or may be an autonomous pension scheme. Examples of social benefits include pensions, life insurance, and health insurance; allowances for children, spouse, family, education, or other payments with respect to dependents; payments made to workers absent from work because of illness, accidental injury, maternity leave, and so forth; and severance payments. Both actual and imputed social contributions are included in the remuneration of employees. For defined contribution pension schemes, the actual amounts payable by employers are included. For defined benefit pension schemes, including unfunded pension schemes, the amount of employers' social contributions should be determined on the basis of actuarial calculations that yield contributions required to secure the increase in entitlements resulting from the employee service in the current period (the current service increase). (See paragraph [5.66] for the definition of pension entitlements.)

**12.22b** As employers' social contributions are made for the benefit of their employees, their value is recorded as one of the components of remuneration of employees together with wages and salaries in cash and in kind. The social contributions are then recorded as being paid by the employees as current transfers to the social security schemes or other social insurance schemes (see also paragraph [12.35] and/or [13.32a]).

**12.23** Employees who are employed outside their economy of residence may incur costs for transportation to and from work in the economy of their employment for which they receive an allowance from their employer. Furthermore, nonresident employees (including remote workers) may be subject to the payment of income taxes (see paragraph [13.28]). These flows should be recorded on a gross basis respectively as travel expenditures and taxes on income; that is, they should not be deducted from compensation of employees.

## **2. Dividends and withdrawals from income of quasi-corporations**

**12.24** *Dividends are earnings distributed to the owners of corporate equity for placing funds at the disposal of corporations.* Raising equity through the issue of shares is an alternative way of raising funds compared to borrowing. In contrast to debt financing, however, equity finance does not give rise to a liability that is fixed in monetary terms and does not entitle the holders of shares of a corporation to a fixed or predetermined income. Owners of equity receive their share of distributed earnings, the timing and amounts of which are decided by corporations. Owners are also entitled to the residual value of the assets of the corporation in the event of its liquidation (see paragraph [5.21]).

**12.25** The concept of dividends is linked to the instrument classification; namely, they are the return payable by corporations to their shareholders or owners.<sup>1</sup> Dividends are most often quoted in terms of the amount of money declared payable per share. They may also be quoted in terms of a percentage of the market value of shares, referred to as dividend yield. Income on nonparticipating preferred shares (see paragraph [5.46]) is treated as interest income, rather than dividend income, because such shares are classified as debt instruments. Share buybacks are not treated as the distribution of dividends. They are recorded as financial transactions, as purchases of own shares by the relevant corporations.

**12.26** In addition to dividends from corporations, withdrawals from income of quasi-corporations (such as distributed branch profits) should be included under this heading. In legal terms, quasi-corporations cannot distribute income in the form of dividends. Nevertheless, the owner, or owners, of a quasi-corporation may choose to withdraw some or all of the income of the enterprise, and some quasi-corporations formally organized as trusts, partnerships, or other institutions may formally distribute some or only a portion of their earnings. From an economic point of view, the withdrawal of such income is equivalent to the distribution of corporate income through dividends and is treated in the same way. Income from rent earned on land and rentals earned on buildings directly held by nonresidents less costs involved is also classified under dividends and distributed incomes from a notional direct investment enterprise (see paragraphs 4.34-4.40)).

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<sup>1</sup>Dividends under reverse transactions and manufactured dividends are discussed in paragraph [12.69] and Annex [X].

**12.32** Dividends are also identified for equity in investment funds. Investment in investment funds is usually classified in portfolio investment. Investment in investment funds may also occur in other investment or reserve assets but never in direct investment (even if the investor holds an equity stake that is 10 percent or more). For equity in investment funds and direct investment, the owners' earnings include both the distributed income and reinvested earnings.

**12.27** Dividends paid by corporations to direct investors and withdrawals from income of quasi-corporations by their direct investors include any distributions to their owners from the current period or accumulated reserves from ordinary earnings in previous periods. Corporations often smooth the payments of dividends, sometimes paying out less than the current period's entrepreneurial income but other times paying out more (see paragraph [12.33a] for a definition of entrepreneurial income). Corporations may also choose to make large infrequent distributions to their shareholders from accumulated earnings of previous periods. Similarly, owners of quasi-corporations may make withdrawals from accumulated earnings of previous periods. For distributions to direct investors, no attempt is made to align dividend payments with earnings for any given period.

**12.27a** Dividends and withdrawals from income of quasi-corporations do not include funds realized by the sale or disposal of assets of the corporation or the quasi corporation (e.g., the sale of inventories, fixed assets, land or other natural resources, or the liquidation of financial assets). Transmittal of funds resulting from such disposals or liquidations of assets is recorded as a withdrawal of equity in the financial account.

**12.27b** For portfolio investment and other investment, all exceptional payments made out of accumulated reserves, as well as payments arising from non-operating activities (such as sales of assets), are considered superdividends and are treated as withdrawals of equity in the financial account. The term superdividends is used to refer to *large and irregular payments made by corporations to their shareholders or owners that are funded from accumulated reserves or sales of assets other than cash. If the distributable income is positive, the difference between the payment and the distributable income of the relevant accounting period is recorded as a superdividend under withdrawal of equity. The remainder of the payment (equal to the distributable income) is recorded as a dividend. If the distributable income is negative, the entire dividend payout is recorded as a superdividend under withdrawal of equity. The concept of superdividends does not apply to foreign direct*

*investment where distributions from accumulated reserves are also treated as dividends. However, in the case of foreign direct investment, any additional distributions, e.g., from sales of assets, are recorded as withdrawal of equity. (See also paragraphs [8.16a and 8.28a].)*

**12.27c** The treatment of payments from accumulated reserves to direct investors is therefore different from similar payments to portfolio or other investors, or to domestic shareholders. However, the recording of dividends does not affect the total direct investment income. This is because direct investment income on equity is made up of dividends or withdrawals of income from quasi-corporations and reinvested earnings. The treatment makes visible the conscious decision on the part of the direct investor to distribute or to reinvest income earned over current and past periods. It may be useful to separately identify exceptional payments from accumulated reserves to direct investors, for their analytical value and for comparability with the treatment of super-dividends on other types of investment. Payments from accumulated reserves is thus introduced as a supplementary sub-item of dividends in the external accounts.

**12.28** Stock dividends arise where stockholders elect to receive payments of dividends in the form of issue of new shares. The stock dividends are essentially a capitalization of earnings and an alternative to distributing cash dividends. Therefore, stock dividends are treated as dividend income (in the earned income account), which is then immediately reinvested (in the financial account).

**12.29** Bonus shares refer to issues of new shares to all stockholders in proportion to existing ownership. These arrangements are not treated as transactions because no new resources have been provided. The claim of the shareholders on the unit is the same before and after the issuance of bonus shares. (See also paragraph [8.33].)

**12.30** Liquidating dividends, whether partial or total, arise mainly at the time of the termination of a company. These are treated as a withdrawal of equity, shown in the financial account, as a convention based on the assumption that liquidating dividends are more likely to involve previously existing equity finance rather than current income.

**12.30a** Supplementary information on the reduction in equity arising from the disposal or sale of assets (including from liquidating assets) may be displayed as “of which, from sales of assets” in the financial account.

**12.31** Dividends are recorded at the time the shares go ex-dividend (see paragraph [3.48] for recording of dividends). In some cases (such as when the equity is unlisted) the ex-dividend date may not be known, and the payment date can be used. Withdrawals from income of quasi-corporations, that is, distributed profits, are recorded when they are withdrawn by their owners. Dividends and withdrawals from income of quasi-corporations are recorded gross of any withholding taxes. These taxes are deemed to be payable by recipients of such income.

### 3. Reinvested earnings

**12.33** This section describes the treatment in the external accounts of reinvested earnings from equity participation. Reinvested earnings of a corporation or quasi-corporation are earnings accruing to direct investors less the amounts already payable to direct investors through dividend distribution or through withdrawals from income of quasi-corporations. Reinvested earnings of investment funds are defined in the same way. Attribution of cross-border income (of which reinvested earnings is a part) is particularly important for deriving consistent and comparable measures of national disposable income and national saving.

**12.33a** When discussing reinvested earnings of a corporation or quasi-corporation, it is helpful to introduce the associated concepts of entrepreneurial income and distributable income.

Entrepreneurial income is formally stated as:

Income earned by the production of goods and services (operating revenue *minus* operating expenses and depreciation)

+ Property income receivable (including dividends or withdrawals from income of quasi-corporations, reinvested earnings, interest and similar returns, rent, and other property income)

- Property income payable excluding dividends or withdrawals from income of quasi-corporations and reinvested earnings.

Distributable income is formally stated as:

Entrepreneurial income

+ Current transfers receivable less current transfers payable

- Adjustment for the change in pension and nonpension entitlements relating to the pension scheme or other social insurance scheme of that corporation.

(These items refer to domestic and cross-border transactions of the enterprise and correspond exactly to *SNA* items; see also paragraphs [12.44 and 12.45] as well as additional information on the treatment of particular items of revenue and expenditure in the *2025 SNA*.)

**12.33b** The term distributable income refers to income arising from current operations, from property income, and from current transfers (before any dividends or reinvested earnings are deemed payable) that are available to corporations for distribution to investors in proportion to their equity participation. If the corporation makes a dividend distribution this will reduce each investor's share of distributable income by the amount received as a dividend. The difference between the distributable income and dividends paid to shareholders is retained by the corporation.

**12.35** In macroeconomic statistics, corporations are defined as institutional units separate from their owners and able to take economic decisions (see paragraphs [4.13–4.15] for the definition of corporations as institutional units). Owners receive dividends and face other financial gains and losses arising from the activity of the corporations they own.<sup>2</sup> For corporations, the notion that the institutional units are decision-making

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<sup>2</sup>The amount of dividends payable in any given accounting period depends on a range of factors, including the corporation's judgment of its own investment opportunities relative to those available in the market, differences in the tax treatment of distributed and undistributed income, and the degree of influence and control of the owners in management decisions. 12.35

<sup>3</sup> Interest is not generally charged on accounts receivable or payable. However, when the time gap becomes unusually long and the amount of accounts receivable or payable is very large, the conclusion may be that implicitly an interest fee has been charged.



entities implies that retained earnings are treated as the income and saving of that unit rather than those of its owners. So, the undistributed income arising from the net operating surplus, net property income, and net current transfers is recorded as retained earnings or net saving of corporations. Losses are negative net saving. Quasi-corporations, such as branches and notional units, are treated in the same way as incorporated institutional units (except that dividends would be replaced by withdrawals from income).

**12.36** However, when retaining earnings is a deliberate decision of owners to reinvest, treating them as if they were retained by corporations would not reflect economic reality. Although most economic relationships between a corporation and its owners may be considered to take place in an arm's length situation, the distribution or non-distribution of its net earnings to its owners can be seen to be approved by its owners. In particular, because of the control and influence direct investors have on corporate decisions, reinvested earnings are treated as being distributed to the owners who then are deemed to reinvest back in their enterprises.

**12.36b** Reinvested earnings are recorded in the period in which the distributable income and dividend distribution or withdrawals from income of quasi-corporations accrue. The attribution of reinvested earnings to direct investors applies also to investors in investment funds.

**12.36c** The imputation of income to direct investors and to the owners of investment funds is shown in the earned income account as "reinvested earnings" and the corresponding flow is recorded in the financial account as "reinvestment of earnings" (see paragraphs [8.15–8.16] for the recording of financial account entries). Reinvestment of earnings is an imputed financial transaction. In the position data, reinvestment of earnings is not shown separately but included implicitly in the total value of equity.

**12.36d** Although reinvested earnings are recorded only for equity in direct investment and investment in investment funds, it might be argued that the treatment should be consistent for all types of equity investment. For this reason, compilers are encouraged to provide supplementary reporting of information on the implied reinvested earnings of other types of equity investment. A possible change in the guidance, after having gained more experience on this alternative recording, has been put on the SNA/BPM research agenda.

## ***a. Reinvested earnings on direct investment***

**12.40** Investment income attributable to direct investors on their equity includes dividends, withdrawals from income of quasi-corporations, and reinvested earnings. Reinvested earnings of a direct investment enterprise consist of *the direct investors' proportion of distributable income of a direct investment enterprise, less amounts declared for dividend distribution to direct investors, or less withdrawals from income of quasi-corporations by the direct investors. Reinvested earnings are treated as being distributed and subsequently reinvested.* Reinvested earnings are attributed to direct investors who are in an immediate direct investment relationship with the direct investment enterprises (i.e., when equity participation by direct investors meets the 10 percent threshold). See Box 11.5 for an example of the calculation of reinvested earnings. However, reinvested earnings are not attributed to direct investors when the equity participation provides less than 10 percent of the voting power. (For example, a direct investor may directly hold a stake of 1 percent of an indirectly held subsidiary; although it is a direct investor by virtue of the chain of ownership, it is not shown as a direct recipient of reinvested earnings on its 1 percent holding.) Paragraphs [6.8–6.24] define direct investment relationships. In the case of a government-owned nonresident unit used solely for fiscal purposes, transactions are imputed between the government and the government-owned nonresident unit to reflect the fiscal activities of the government (see paragraphs [8.24–8.26]). Therefore, such government-owned units do not give rise to reinvested earnings.

**12.41** As discussed above, the rationale behind the current treatment of reinvested earnings on direct investment is that, because a direct investment enterprise is, by definition, subject to control, or influence, by a direct investor or investors, the decision to retain and reinvest some of its earnings within the enterprise represents an investment decision on the part of the direct investor(s). Many factors may influence the decisions of direct investors on the proportions of net earnings of direct investment enterprises to be distributed or retained, including taxation systems, transfer costs, investment opportunities in the ongoing business and elsewhere, relative costs of moving financial resources, and need to expand the ongoing business.

**12.44** Reinvested earnings are measured on the basis of distributable income after dividends have been distributed to direct investors, or after withdrawals from income of quasi-corporations, and thus linked to the

concept of operational earnings generated from production, lending and borrowing financial assets, and renting nonproduced nonfinancial assets, and current transfers. They do not include any costs or income arising from the acquisition or sale of fixed assets. (Fixed assets include buildings and other structures, machinery and equipment, intellectual property products, and other assets recognized in the SNA/BPM. Expenditure on research and development and own-account production of software are treated as assets and not as expenses.) Reinvested earnings do not include any realized or unrealized holding gains or losses. Holding gains and losses may arise from valuation changes, including exchange-rate-related gains and losses, revaluation of nonfinancial assets, and changes in market prices of financial assets and liabilities. Reinvested earnings also do not include gains or losses due to other changes in volume of assets, such as write-offs of nonproduced, nonfinancial assets, write-offs of bad debts, and uncompensated seizures of assets. Because business accounting measures of profits often include holding gains or losses, adjustments to business accounting records may be necessary. Holding gains and losses and other changes in volume of financial assets and liabilities are described in [Chapter 9, Other Changes in Financial Assets and Liabilities Account]. Provisions for various types of losses, such as for bad debts, are internal bookkeeping entries that should not be taken into account in determining the net saving and reinvested earnings.

**12.45** Reinvested earnings of a direct investment enterprise are measured after deducting corporate taxes charged on the income of the enterprise. Such taxes are payable by the enterprise and not by its owners. Furthermore, reinvested earnings should be calculated after deducting depreciation. Depreciation is measured by the value, at current replacement cost, of the fixed assets used up (as a result of physical deterioration, normal obsolescence, or normal accidental damage) during an accounting period. In the calculation of depreciation, the expected economic life of an individual asset should be taken into account. (Expected life and normal obsolescence or damage do not include losses due to wars or major natural disasters.) Depreciation used in the business accounts is not necessarily the same as depreciation used in the national accounts as the business accounts may base depreciation on historic cost or book values, or may use a different depreciation model from the models recommended in the national accounts. Compilers should make adjustments to depreciation based on business accounts where the calculation of depreciation rates diverge significantly from the rates used in the national accounts.

**12.45a** Payments of fines and penalties and of compensation could impact the calculation of reinvested earnings. In the case of large fines and penalties (which are treated as current transfers in the external accounts), compilers should base their determination about whether to include fines or penalties as part of the calculation of retained earnings on the specific characteristics of the fine or penalty, including whether it is considered extraordinary (see paragraph [13.54] for a definition of fines and penalties). In the case of compensation payments, only those compensation payments considered current transfers are to be included in the calculation of retained earnings (see paragraph [13.55] for a definition of compensation payments).

**12.46** Reinvested earnings can be negative when a direct investment enterprise has a loss on its operations or the dividends declared in a period are larger than distributable income in that period. If direct investment abroad generates negative earnings, the entry should be shown as a negative income credit/revenue by the direct investor. Similarly, the economy of the direct investment enterprise should record the losses as negative income debit/expenditure.

**12.47** In a chain of direct investment relationships, reinvested earnings need only be recorded between the direct investor and directly owned direct investment enterprises. The passing of reinvested earnings from indirect holdings should be taken into account through the chain of direct investment relationships. Retained earnings of an enterprise in the chain would include reinvested earnings derived from its immediate direct investment enterprise (see paragraphs [6.8–6.24] for a definition of direct investment relationships), which as a direct investor would receive reinvested earnings from its immediate direct investment enterprise, and so on. Therefore, reinvested earnings are passed on to the indirect direct investors through the chain indirectly, as illustrated in [Box 12.1].

\* \* \* \* \*

**Box 12.1. Reinvested Earnings with Chain of Ownership**

Enterprise A has a 100 percent subsidiary Enterprise B, which in turn has a 100 percent subsidiary Enterprise C.

Enterprise A is owned 95 percent by portfolio investors, while Enterprise C owns 5 percent (reverse investment).

In the following example, earnings are as stated and none of the enterprises pays dividends during the period—all earnings are retained; so the following results are obtained for reinvested earnings:

		Reinvested earnings	
	Earnings from own operations	Payable	Receivable
Enterprise A	100	0	120
Enterprise B	40	120	80
Enterprise C	80	80	0

Notes:

- The reinvested earnings receivable for Enterprise A consist of the reinvested earnings receivable from its immediate direct investment enterprise, Enterprise B. However, the reinvested earnings of Enterprise C are indirectly taken into account through reinvested earnings of Enterprise B. (See paragraph [12.47].)
- No reinvested earnings are payable on the reverse investment equity of Enterprise C in Enterprise A. (See paragraph [12.99].)

\* \* \* \* \*

***b. Investment income attributable to investment fund shareholders***

**12.37** Investment income attributable to investment fund shareholders are *dividends and retained earnings of investment funds, which are attributable to the shareholders*. Investment funds provide a convenient, accessible, and affordable vehicle for financial investment. Typically, investment funds sell shares or units to the public and invest in a diversified portfolio of securities, although they may also invest in other assets, including real estate, or they may be limited to a small number of investors (see paragraphs [4.73–4.75] on

investment funds as an institutional subsector). Each share represents a proportional equity in the investment portfolio managed by investment funds.

**12.38** Earnings from investment funds can be viewed as being passed on to their shareholders (or unitholders) as they are earned in the form of investment income on their equity. Investment funds earn income by investing the money received from shareholders. Shareholders' income from investment funds is defined as the investment income earned on the fund's investment portfolio. When only a part of the net earnings is distributed to shareholders as dividends and imputed dividends (as discussed in the next paragraph), the retained earnings should be treated as if they were distributed to the shareholders (including resident shareholders) and then deemed reinvested. The consequence of the treatment of the retained earnings of investment funds is that the saving of investment funds is always zero.

**12.38a** There are direct and indirect fees that are borne by the shareholders in investment funds. The direct fees are charges paid directly by the shareholders to fund managers, brokers and custodians or other service providers. These fees are not considered either as an expenditure from the investment fund (or out of the fund assets) to the service provider or as income paid from the shareholder to the investment fund. Indirect fees are paid out of the income generated by the fund or out of the fund assets. These are expenses paid by the investment fund to third parties, such as fund management companies. However, because the fees are paid by the investment fund on behalf of the shareholder from the income generated from the investments of the fund, these costs incurred by the fund in its day-to-day operations are treated as services provided directly from the professional providers to the shareholders (see paragraph 11.125\_1). They are not considered as operating expenses of the fund. The amounts should be treated as an additional component of the investment income attributable to the shareholders from the fund which would be considered as "imputed dividends" and recorded under dividends and withdrawals from income of quasi-corporations, which are subsequently paid to the service providers for indirect service charges. As a consequence, the total income attributable to the shareholders in the form of dividends (including this additional imputation) and reinvested earnings would be equal to the total earnings on investments by the fund (see box 12.1 for an example of the calculations).

[\* \* \* \* \*

### **Box 12.1a Numerical example of the treatment of indirect fees paid by the shareholder of investment fund units to service providers**

An investment fund in economy A makes investments of securities and other assets in country C on behalf of shareholders in economy B. During the period, the investments yield income to the fund of 20; and the investment fund incurs day-to-day costs of 4 paid to other financial service providers in economy D (these are indirect fees) which are financed from the income received on investment. The investment fund pays a dividend of 5 to shareholders.

The earned income account entries in economy A would be

<i>Investment income to the investment fund (with Economy C)</i>	<i>20 credit/revenue</i>
<i>Dividends paid by the investment fund (with Economy B)</i>	<i>9 debit/expenditure</i>
of which, “imputed” dividends (with Economy B)	4 debit/ expenditure
<i>Retained earnings of the investment fund (with Economy B)</i>	<i>11 debit/ expenditure</i>

Note that the savings of the investment fund is zero.

The services account and earned income account entries in economy B would be

<i>Investment income to the shareholder (with economy A)</i>	<i>20 credit/revenue</i>
Made up of,	
<i>dividends</i>	<i>9 credit/revenue</i>
of which “imputed” dividends	4 credit/revenue
<i>reinvested earnings</i>	<i>11 credit/revenue</i>

*Imputed service charge (with economy D)*

*4 debit/expenditure*



It is acknowledged in Annex 11, paragraph A11.XX that the treatment of indirect fees may create practical difficulties for compilers.

\* \* \* \* \*

**12.39** Dividends and retained earnings attributable to owners of investment funds exclude holding gains and losses arising from investment by the funds. Holding gains and losses are recorded as revaluations in the integrated IIP .

## 4. Interest and similar returns

References:

IMF and others, *External Debt Statistics: Guide for Compilers and Users*, Chapter 2, Appendix, Accrual of Interest Costs—How Should This Be Implemented? and paragraphs [6.15–6.17].

IMF and others, *Handbook on Securities Statistics*

IMF, *Monetary and Financial Statistics Manual and Compilation Guide*, Annex 5.2

**12.48** *Interest and similar returns is a form of investment income or interest-like income that is receivable by the owners of certain kinds of financial assets, namely: deposits, debt securities, loans and other accounts receivable and some similar instruments in the case of Islamic finance, for putting the financial asset at the disposal of another institutional unit. Income on SDR holdings and allocations is also treated as interest and similar returns. By convention, lending fees on securities, gold loans, gold swaps, and crypto assets without a corresponding liability designed to act as a general medium of exchange are classified as interest and similar returns.* Not all current account flows associated with debt instruments are interest and similar returns; some may be commissions or fees, which are charges for financial services (see paragraphs [10.118–10.136] for a discussion of financial services).

**12.49** Interest and similar returns is recorded on an accrual basis; that is, interest and similar returns is recorded as accruing continuously over time to the creditor on the amount outstanding. Depending on the

contractual arrangements, interest and similar returns may be a percentage of the amount outstanding, a pre-determined sum of money, a variable sum of money dependent on a defined indicator, or some combination of these methods. In the case of Islamic finance, interest or similar returns would be a pre-determined share of profit related to the sourcing or the use of certain types of funds. Under the accrual basis, as interest and similar returns accrues, the amount outstanding increases; that is, accrued interest and similar returns not yet paid is a part of the amount outstanding. What are commonly referred to as interest payments, therefore, are financial account transactions that reduce the debtor's existing liability. The amount initially advanced or borrowed is also known as initial principal. Periodic coupon payments may cover part or whole of the interest and similar returns accrual during that period as well as payments that reduce the initial principal.

**12.49a** The guidance below is mainly focused on interest as commonly known. Economies with significant Islamic financial activities are encouraged to create a sub-category within interest and similar returns to present investment income for putting financial assets, such as deposits (or sources of funds), debt securities, loans (or uses of funds) and possibly other accounts receivable, at the disposal of another institutional unit. Specific types of interest-like income, as practiced in Islamic finance, are further elaborated in cChapter 17.

### ***a. Currency of denomination and fixed-rate vs. index-linked instruments***

**12.50** For the purpose of defining and measuring interest, it is useful to distinguish between the following three types of arrangements:

- (a) **Domestic-currency-denominated fixed-rate instruments.** At inception, the contracting parties determine all future cash flows that the debtor must make in domestic currency. Interest for these instruments is the difference between the sum of all debtor's payments and the funds the creditor makes available to the debtor. The information on the amount outstanding and future cash flows needed to calculate interest accruals is known at inception.

- (b) **Foreign-currency-denominated fixed-rate instruments.** At inception, future cash flows are determined in the relevant foreign currency. The recording of interest on foreign currency fixed-rate instruments is also straightforward. Interest is defined as described in (a) above, with the only difference being that, in the first instance, a foreign currency is used as the currency of denomination. Interest expressed in foreign currency is to be converted into the domestic currency at the mid-point market exchange rate for the periods in which the interest accrues. The information on amount outstanding and cash flows needed to calculate interest accruals in the currency of denomination is known at inception. Debt instruments with both the amount to be paid at maturity and all periodic payments (such as coupons) linked to a foreign currency are treated as though they are denominated in that foreign currency.
- (c) **Index-linked instruments.** The indexation mechanism links the amount to be paid at maturity or periodic payments (such as coupons) (or both) to indicators agreed by the parties, and the values of the indicators are not known in advance. As a result, the amount of interest cannot be known at the time of issue. For some instruments, it can be determined only at the time of redemption. Indexed instruments include those indexed to the consumer price index, a stock exchange index, a commodity price, and so forth.

Index-linked debt instruments are those on which payments are linked to a reference item that normally changes over time in response to market pressures. All other debt instruments should be classified as fixed-rate. As noted in paragraph [12.50(b)], debt instruments with both the amount to be paid at maturity and periodic payments linked to a foreign currency are classified and treated as though they are denominated in that foreign currency. All other types of index-linked instruments, including those that are partially linked to exchange rates (e.g., those for which either only the amount to be paid at maturity or only periodic payments are linked to an exchange rate), are treated as being denominated in domestic currency for the recording of interest and other economic flows. The calculation of interest accrual for index-linked instruments is described in paragraphs [12.59–12.65].

### ***b. Interest on loans, deposits, and accounts receivable/payable***

**12.51** The nature of financial assets and liabilities in the form of deposits, loans, and accounts receivable/payable is explained in Chapter 5, Classification of Financial Assets and Liabilities. In general, the interest accrual on these financial assets and liabilities is determined by applying the relevant interest rate as specified in the contractual arrangements between parties to the amount outstanding at each point of time throughout the accounting period. Some instruments have a fixed interest rate for the entire life of the instrument. Some instruments may have terms for changes in interest rates, once or several times, during the life of the instrument. For each period, the relevant interest rate should be used to calculate interest accrued in that period. Some loans and deposits may also have indexation of the amount to be paid at maturity or periodic payments (or both). Interest accruals arising from indexation as described in paragraphs [12.59–12.65] also apply to indexed loans and deposits.

#### ***h. Pure interest (excluding implicit financial services on loans and deposits)***

**12.74** Typically, financial intermediaries offer lower rates of interest to their depositors than the rates that they charge to their borrowers. The resulting interest margins are used by the financial intermediaries to defray their expenses and to provide an operating surplus. This method of operation is an alternative to charging customers directly for services. The treatment of this margin (implicit financial services on loans and deposits, formerly referred to as financial intermediation services indirectly measured, or FISIM ) and its measurement are described in paragraphs [10.126–10.136].

**12.75** The earned income account records “pure interest” by eliminating the implicit charges component from “actual interest.” “Actual interest” payable to a financial intermediary includes the service charge, which should be subtracted to give the interest recorded as investment income in the external accounts. Similarly, “actual interest” receivable from a financial intermediary is seen as having had a service charge already deducted, so the actual interest receivable from the financial intermediary will be increased by the value of the service received to provide interest recorded as investment income in the external accounts. The “pure interest” is calculated using the reference interest rate. The concept of “reference” interest rate and its application are described in paragraphs [10.129–10.130]. “Actual interest” charged or received by banks is needed for certain analytical

purposes (for instance, for debt sustainability analysis and analysis of rates of return) and should be disseminated as a memorandum item.

### ***f. Accrual of interest on nonperforming debt***

**12.70** Amount outstanding of nonperforming debt remains a legal liability of the debtor, so interest should continue to accrue unless the liability has been extinguished (e.g., by repayment or as a result of a bilateral arrangement between debtor and creditor). However, for some analysis, it may be more useful to exclude, from earned income measures, interest that is not realistically expected to be paid. It would, therefore, be useful for the creditor to provide supplementary information on accrued interest on nonperforming debt when it is significant and quantifiable. It is important that metadata should provide information on the method adopted for defining nonperforming debt. Nonperforming loans are described in paragraphs [7.50–7.53].

**12.71** Following the accrual principle, arrears on debt repayments (both periodic payments and amount to be paid at maturity) that are not paid on due dates should continue to be shown in the same instrument until the liability is extinguished (see also paragraph [3.56]). For arrears arising from a debt contract, interest should accrue at the same interest rate as on the original debt, unless a different interest rate for arrears was stipulated in the original debt contract, in which case this stipulated interest rate should be used. The stipulated rate may include a penalty increase to the periodic payments on the original debt. If the terms and characteristics of the financial instrument automatically change when it goes into arrears, and its classification is changed, the change should be recorded as a reclassification in the other changes in [financial] assets and liabilities account (see paragraph [3.56] for treatment of arrears). If the contract is renegotiated, transactions are recorded as a new instrument is created. If an item is purchased on credit and the debtor fails to pay within the period stated at the time the purchase was made, any extra charges incurred should be regarded as interest and accrue until the debt is extinguished.

**12.72** When a one-off guarantee covering a debt that becomes nonperforming is activated, the guarantor assumes the liability for that debt. From the time of activation of the debt guarantee, the interest accrual becomes the liability of the guarantor. A guarantor may make payments for interest that are due on loans or other interest-bearing liabilities of other units for which it acts as the guarantor. Any interest accruing before the

guarantor assumes the debt is a liability of the original debtor and payments by the guarantor should be classified on the basis of contractual arrangements between the guarantor and the original debtor. In most cases, such payments establish a claim by the guarantor on the original debtor, who is obliged to service the debt. In other cases, the claim on the debtor may be an increase in the existing equity participation (e.g., the activation of a guarantee made by a parent company for debt of its subsidiary will improve the balance sheet of the subsidiary and hence the parent company's equity in it). If the guarantor does not obtain a claim on the original debtor, a capital transfer from the guarantor to the debtor is recorded, particularly when the guarantor is a government unit. The treatment of one-off guarantees is described in paragraphs [8.42–8.45].

## ***f1. Negative interest***

**12.76a** In extraordinary circumstances and in periods of economic distress, negative interest rates can be observed on the deposits of central banks and of commercial banks and on government debt securities. For index-linked bonds where accrued interest is based on movement of the index, negative interest could be observed if the index declines (see [12.62] and Box 12.3). In the balance of payments, negative interest payable on financial instruments is recorded as a negative debit/expenditure and negative interest receivable is recorded as a negative credit/revenue. Economies with significant negative-yielding deposits could consider the incorporation of an “of which” category showing the negative interest income separately in their national publications.

**12.76c** Negative interest can occur also for securities under a reverse transaction as explained in paragraph [12.69].

## ***i. Interest under high inflation***

**12.76** High inflation gives rise to specific issues in measuring and interpreting interest. An obvious example is that interest rates for domestic-currency-denominated instruments could be significantly higher than those for foreign-currency-denominated instruments. Thus, nominal interest for domestic-currency-denominated instruments includes compensation for the loss of purchasing power on the monetary value of the funds advanced. The

topic of accounting under high inflation is important and more pervasive in the accounts than simply the question of how to measure interest in these circumstances. Indeed, the whole issue of the measurement of transactions on a current price basis is called into question when prices at the end of the period are several times those at the start of the period. Chapter 20, Section E of the 2025 SNA provides guidance on compiling data in conditions of high inflation.

***g. Interest on financial leases***

**12.73** Financial leases are defined and distinguished from operating leases in paragraphs [5.56–5.58]. The implication of treating financial leases as a loan is that interest accrues on the loan. The lessor is treated as making a loan to the lessee equal to the market value of the asset, this loan being gradually paid off over the period of the lease. The rate of interest on the imputed loan is implicitly determined by the total amount payable in rentals over the life of the lease in relationship to the market value of the asset at the time of lease initiation. The initial loan to the lessee, together with the lessee’s subsequent repayments of the loan, are recorded in the financial account of the lessor and lessee. The interest payable on the loan is recorded in the earned income account. [(A numerical example of calculation of items for financial leases is shown in [Box ].)]

**Box 12.1b Numerical Example of Financial Lease**

\* \* \* \* \*

A piece of imported equipment worth 1,000 is provided under a financial lease from a nonresident financial corporation. The lease begins on January 1, an annual payment of 140 is made on December 31 each year for 10 years, at which time the lessee has the option to purchase the equipment at an agreed price. The contract is based on an interest rate of 7 percent per annum, while the reference rate of interest is 5 percent per annum.

For the economy of the lessee, the following entries are made in the first two and final years:

**Year 1**

<i>Current Account:</i>	<b>Credits/ Revenues</b>	<b>Debits/ Ex- penditures</b>
Goods		1,000

Services—Financial services (implicit financial services on loans and deposits)		20
Earned Income—Investment income (interest and similar returns)		50
	<b>Net acquisition of financial assets</b>	<b>Net incurrence of liabilities</b>
<i>Financial account:</i>		
Other investment, loans		930
Other investment, currency and deposits	-140	

Actual interest is 70, of which 20 is implicit financial services on the loan and 50 is pure interest. The value of the loan debt is 930 at the end of year 1 ( $1000 + 20 + 50 - 140$ ).

## Year 2

<i>Current Account:</i>	<b>Credits/ Revenues</b>	<b>Debits/ Expenditures</b>
Services—Financial services (implicit financial services on loans and deposits)		18.6
Earned Income—Investment income (interest and similar returns)		46.5
	<b>Net acquisition of financial assets</b>	<b>Net incurrence of liabilities</b>
<i>Financial account:</i>		
Other investment, loans		-74.9
Other investment, currency and deposits	-140	

Actual interest is 65.1, of which 18.6 is implicit financial services on the loan and 46.5 is pure interest. The value of the loan debt is 855.1 at the end of year 2 ( $930 + 18.6 + 46.5 - 140$ ).

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Year 10	Credit	Debit
	Credits/ Revenues	Debits/ Ex- penditures
<i>Current Account:</i>		
Goods	32.8	
Services—Financial services (implicit financial services on loans and deposits)		3.2
Earned Income—Investment income (interest and similar returns)		8.1
	Net ac- quisition of finan- cial assets	Net incur- rence of lia- bilities
<i>Financial account:</i>		
Other investment, loans		-161.5
Other investment, currency and deposits	140	

Actual interest is 11.3, of which 3.2 is implicit financial services on the loan and 8.1 is pure interest. The residual value of the good purchased is 32.8, which is recorded as a goods transaction if the good is returned to the lessor, extinguishing the loan liability (as in the example) rather than the lessee purchasing it.

\* \* \* \* \*

### *c. Interest on debt securities—traded debt instruments and concept of interest*

**12.52** Defining and measuring interest for traded debt securities, or bonds, is not straightforward. While debtors have obligations to settle according to the terms and conditions set at the inception of the debt instruments, holders of securities acquired in the secondary markets may not know or even care about the interest rate at the time of issue. There are three approaches for defining and measuring interest for traded debt instruments:

- (a) Interest is equal to the amounts the debtors will have to pay to their creditors over and above the repayment of the amounts advanced by the creditors. Interest accrual on a debt instrument is determined for the entire life by the conditions set at inception of the instrument. Interest accrual is determined using the original yield-to-maturity. A single effective yield, established at the time of security issuance, is used to calculate the amount of accrued interest in each period to maturity. This approach is also known as the debtor approach.
- (b) Interest is the income that follows from applying, at any point in time, the discount rate of future receivables implicit in the instrument's market value. The accrual of interest under this approach reflects current market conditions and expectations. Interest accrual at any given time is determined using the current yield-to-maturity. The effective interest rate for calculating the accrued interest varies with period-to-period changes in the market price of the securities. This approach is also known as the creditor approach.
- (c) Interest is the income that follows from applying the discount rate implicit in the cost at which the instrument was acquired. The accrual of interest under this approach reflects market conditions and expectations at the time of acquisition. Interest is determined using the remaining yield-to-maturity at the time the debt instrument is acquired. The effective interest rate will change only if the security is resold in the secondary market. This approach is also known as the acquisition approach.

**12.53** In the external accounts, interest is recorded following the first approach described above in paragraph [12.52(a)]. The same approach is followed in other macroeconomic statistical systems. Interest calculated according to the market rates as described in paragraph [12.52(b)] may be reported as a supplementary item, which is important particularly for analyzing rates of return. It should be noted that for debt securities the valuation and recording of transactions in the financial account and positions in the balance sheets do not depend on the method used for the calculation and recording of interest accrual. Acquisitions and disposals of debt securities are recorded at transaction prices and the positions are recorded at market prices or fair values.

### *Debt securities with known cash flows*

**12.54** For debt securities for which the issue and redemption prices are the same (i.e., issued at par), total interest accruals over the whole life of the securities are given by the periodic coupon payments. If coupon payments are fixed, accrued interest can be calculated by allocating the coupon payment to the relevant period using a daily compound formula.

**12.55** Certain debt securities, such as short-term bills of exchange and zero-coupon bonds, are such that the debtor is under no obligation to make any payments to the creditor until the liability matures. In effect, the debtor's liability is discharged by a single payment covering both the amount of the funds originally borrowed and the interest accrued and accumulated over the entire life of the liability. Instruments of this type are said to be discounted because the amount initially borrowed is less than the amount to be repaid. The difference between the amount to be repaid at the end of the contract and the amount originally borrowed is interest that must be allocated over the accounting periods between the beginning and end of the contract. The interest accruing in each period is recorded in the earned income account with the same amount increasing the debtor's liability for the same instrument in the financial account. An example is shown as Box 12.2.

#### **Box 12.2. Numerical Example of Calculation of Interest Accrual on a Zero-Coupon Bond**

A bond is issued on January 1, Year 1, with 100 repayable in five years, with no coupons.

If the market rate of interest at the time of issue is 10 percent for that maturity and credit rating, then the bond will be issued at a price of 62.09 (that is,  $100/1.1^5$ ).

The annual interest calculations and associated values of the principal are as follows:

	IIP	Income	IIP
	Value of Debt Securities January 1	Interest Accrued	Value of Debt Securities December 31
Year 1	62.09	6.21	68.30
Year 2	68.30	6.83	75.13
Year 3	75.13	7.51	82.64
Year 4	82.64	8.26	90.91
Year 5	90.91	9.09	100.00

Notes:

- According to the debtor approach (see paragraph 12.52(a)), the interest in each period is fixed at inception.
- The sum of interest over the five years is 37.91, equal to the difference between 62.09 (price at issue) and 100 (price at redemption).
- Interest accrued each year increases in line with the growing accumulated value of accrued interest.
- The corresponding entry to the interest accrued is an increase in debt securities in the financial account. The values of the bond during the period are unknown, because of holding gains and losses. While fluctuations in market interest rates will cause changes in the value, the calculation of interest is unaffected.

(For further details, see *External Debt Statistics: Guide for Compilers and Users* (2014), paragraph 2.66 and Table 2.3.)

**12.56** A slightly more complicated case is a discounted instrument that also requires periodic coupon payments. In such cases, the interest rate should be that one at which the present value of future coupon

and principal payments equals the issue price of the security. However, the accrued interest may be approximated by summing the amount of the coupon payable periodically plus the amount of interest accruing in each period attributable to the difference between the redemption price and the issue price. Interest accrual from the periodic coupon payments is derived as explained in paragraph [12.54]. Interest accrual from the amortization of the discount (the difference between the issue and redemption prices) can be calculated by summing daily amortizations for the reporting period. Although amortization rates could be calculated on monthly or quarterly bases, amortization at a daily rate facilitates the allocation of the amortized discount to the individual reporting periods.

**12.57** In some cases, debt securities are issued at a premium rather than at a discount. The method of determining the interest accrual is identical to the case of a discounted instrument except that when issued at a premium, the difference between the redemption and issue price is amortized over the life of the instrument and reduces (rather than increases as in the case of the discounted instrument) the amount of interest accruing in each period. Examples of securities issued at par, at a discount and at a premium are shown in Box 12.2.. For further discussion and examples, see *Handbook on Securities Statistics* (2015), Annex 1 and *Monetary and Financial Statistics Manual and Compilation Guide* (2016), Annex 5.2 for examples with semi-annual accruals.

**12.58** Stripped securities raise special issues for accrual of interest. Unofficial strips are issued by a third party without the authorization of the original issuer and, hence, the stripped securities are new instruments—a liability of the strip issuer. The original debt securities continue to accrue interest according to the term specified in the contract. Interest on stripped securities accrues at the rate determined at the time of issuance of strips. Official strips (issued with the authorization of the original issuer through a strip dealer it appoints) simply change the arrangements for holding the original instrument, and thus the strips remain the direct obligation of the original issuer. Stripping therefore provides no change to the cost of borrowing to the issuer and interest on official strips is assumed to accrue at the rate on the underlying security, but the cash flows change for the parties because of the issuance of zero-coupon bonds (see *External Debt Statistics: Guide for Compilers and Users* (2014), paragraphs 2.85-2.88 and *Handbook on Securities Statistics* (2014), paragraph 6.35).

## Box 12.2a. Numerical Examples of Calculation of Interest Accrual on securities issued at par, at discount and at a premium

### Example 1: A fixed interest rate bond issued at par

Issue price: 1,000; annual coupon payments: 100; original maturity: 5 years; redemption price: 1,000.

Implied interest rate,  $r=10\%$

*Table 12.2a Stocks and flows during the life of a bond issued at par*

	Nominal value					
	a. before coupon payment (= $b_{(t-1)}+c$ )	b. after cou- pon payment (= $a - d$ )	c. accrued interest <sup>(c)</sup> (= $b_{(t-1)} * r$ )	d. coupon payment	e. market value <sup>(b)</sup>	f. reval- uation <sup>(a)</sup>
Start year 1	1000	1000			1000.0	
End year 1	1100	1000	100	100	969.0	-31.0
End year 2	1100	1000	100	100	1025.3	56.3
End year 3	1100	1000	100	100	1054.2	28.9
End year 4	1100	1000	100	100	982.1	-72.1
End year 5	1100	1000	100	100	1000.0	17.9

### Example 2: A fixed interest rate bond issued at discount with periodic payments

Issue price: 900; annual coupon payments: 73.6; discount payment at redemption; original maturity: 5 years; redemption price: 1,000

It is seen that 900 is the present value of future payments of 73.6 at the end of years 1 to 5 and a payment of 1000 in year 5, corresponding to approximately 10 percent rate of interest.

Implied interest rate,  $r=10\%$

**Table 12.2b Stocks and flows during the life of a bond issued at discount**

	Nominal value					
	a. before coupon pay- ment (= $b_{(t-1)}+c$ )	b. after cou- pon payment (= $a - d$ )	c. accrued interest <sup>(c)</sup> (= $b(t-1)*r$ )	d. coupon payment	e. market value <sup>(b)</sup>	f. reval- uation <sup>(a)</sup>
Start year 1	900	900			900.0	
End year 1	990.0	916.4	90.0	73.6	887.1	-29.3
End year 2	1,008.0	934.4	91.6	73.6	958.5	53.4
End year 3	1,027.9	954.3	93.4	73.6	1006.5	28.2
End year 4	1,049.7	976.1	95.4	73.6	958.6	-69.7
End year 5	1,073.7	1,000	97.6	73.6	1000.0	17.4

### Example 3: A fixed interest rate bond issued at a premium with periodic payments

Issue price: 1,100; annual coupon payments: 126.4; discount payment at redemption; original maturity: 5 years; redemption price: 1,000

It is seen that 1100 is the present value of future payments of 126.4 at the end of years 1 to 5 plus a payment of 1000 in year 5 corresponding to approximately 10 percent rate of interest.

Implied interest rate,  $r=10\%$

**Table 12.2c Stocks and flows during the life of a bond issued at a premium**

	Nominal value					
	a. before coupon pay- ment (= $b_{(t-1)}+c$ )	b. after cou- pon payment (= $a - d$ )	c. accrued interest <sup>(c)</sup> (= $b_{(t-1)} * r$ )	d. coupon payment	e. market value <sup>(b)</sup>	f. reval- uation <sup>(a)</sup>
Start year 1	1,100.0	1,100			1,100.0	
End year 1	1,210.0	1,083.6	110.0	126.4	1,049.0	-34.6
End year 2	1,192.0	1,065.6	108.4	126.4	1,105.3	74.3
End year 3	1,172.1	1,045.7	106.6	126.4	1,094.2	8.7
End year 4	1,150.3	1,023.9	104.6	126.4	982.1	-90.3
End year 5	1,126.3	1,000	102.4	126.4	1,000.0	41.9

Notes:

- (a) In each year the difference between the accrued interest and the coupon payment is capitalized (reinvested into the principal amount). Revaluations can be calculated as the difference between the current market value and the sum of the previous market value and capitalized interest. The revaluations over the lifetime of the bond sum to zero.
- (b) Apart from the initial and final amounts, the market value amounts of the debt securities in the examples are chosen arbitrarily.
- (c) Interest accrues for every period (daily, monthly, quarterly, and annually). If the timing of the coupon payment differs from the reporting period end-date, then a further accrued interest would apply in each period up to the final payment.



### ***Index-linked debt securities***

**12.59** As explained in paragraph [12.50], an indexation mechanism links the amount to be paid at maturity or coupon payments (or both) to indicators agreed by the parties. The values of the indicators are not known in advance. For debt securities with indexation of the amount to be paid at maturity, they may be known only at the time of redemption. As a result, coupon payments before redemption are uncertain and cannot be determined with certainty. For estimating interest accruals before the values of the reference indicators are known, some proxy measures will have to be used. In this regard, it is useful to distinguish the following three arrangements:

- (a) indexation of coupon payments only with no indexation of amount to be paid at maturity,
- (b) indexation of the amount to be paid at maturity with no indexation of coupon payments, and
- (c) indexation of both the amount to be paid at maturity and coupon payments.

The principles described in paragraphs [12.60–12.66] for index-linked debt securities apply to all index-linked debt instruments.

**12.60** When only coupon payments are index-linked, the full amount resulting from indexation is treated as interest accruing during the period covered by the coupon. It is most likely that by the time data are compiled for a reporting period, the date for the coupon payment would have been passed and hence the value of index is known. When the date for the coupon payment has not been passed, the movement in the index during that part of the reporting period covered by the coupon can be used to calculate the interest accrual.

**12.61** When the amount to be paid at maturity is index-linked, the calculation of interest accruals becomes uncertain because the redemption value is unknown; in some cases the maturity time may be several years in the future. Two approaches can be followed to determine the interest accrual in each accounting period:

- (a) Interest accruing in an accounting period due to the indexation of the amount to be paid at maturity may be calculated as the change in the value of this amount outstanding between the end and beginning of the accounting period due to the movement in the relevant index. (See Box [12.3] for an example.)
- (b) Interest accruals may be determined by fixing the rate of accrual at the time of issue. Accordingly, interest is the difference between the issue price and the market expectation, at inception, of all payments that the debtor will have to make, which is recorded as accruing over the life of the instrument. This approach records as income the yield-to-maturity at issuance, which incorporates the results of the indexation that are foreseen at the moment the instrument was created. Any deviation of the underlying index from the originally expected path leads to holding gains or losses that will not normally cancel out over the life of the instrument. (See Box [12.4] for an example.)

**12.62** Although the first approach (using the movement in the index) has the advantage of simplicity, interest includes all changes and fluctuations in the value of the amount to be paid at maturity in each accounting period due to the movement in the relevant index. If there is a large fluctuation in the index, this approach may yield negative interest in some periods even though market interest rates at the time of issue and current period may be positive. Also, fluctuations behave like holding gains and losses. The second approach (fixing the rate at the time of issue) avoids such problems, but the actual future cash flows may differ from the initially expected cash flows unless ex ante market expectations are exactly met. This means that interest for the life of the instrument may not be equal to the difference between the issue price and redemption value.

**12.63** The first approach works well when a broad-based indexation of the amount to be paid at maturity is used (e.g., a consumer price index or nominal GDP) when such indexation is expected to change relatively smoothly over time. However, the first approach may give counter-intuitive results when the indexation of the amount to be paid at maturity combines motives for both interest income and holding gains (e.g., a narrow price index such as a commodity price, stock price, or gold price). Therefore, when indexation includes a holding gain motive, typically indexation based on a single, narrowly defined item, the second approach is preferred; otherwise the first approach should be used for the measurement of interest accrual.

### Box 12.3. Numerical Example of Calculation of Interest Accrual on an Index-Linked Bond—Broad-Based Index

A bond is issued on Jan 1, Year 1 at a price 1000 for five years, with no coupons, indexed to a broad price index. The index value at the beginning of the period is 100.

The index and bond values, with the derived interest and revaluations are as follows:

	Broad Price Index			Bond
	End of Period	Interest	Revaluation	Dec 31
Start year 1	100			1000
Year 1	107.0	70	−12	1,058
Year 2	113.0	60	−17	1,101
Year 3	129.0	160	58	1,319
Year 4	148.0	190	10	1,519
Year 5	140.3	−77	−39	1,403
Year 1–5		403	0	

Notes:

- Total interest over the five years (i.e., 403) is determined by the movement of the index (i.e., 40.3 per-cent increase).
- Since this is a bond, revaluations also arise because of changes in market conditions, such as changes in market interest rates, credit ratings, and expectations about the future path of the index. However, they are zero over the life of the bond when it is repaid at its indexed value.
- Negative values of interest can arise in the periods when the index declines.

- The corresponding entry to the interest accrued is an increase in debt securities in the financial account.
- Fluctuations in market interest rates cause changes in the value of the bond (shown in the final column), but the calculation of interest is unaffected.

**12.64** Because debt instruments with both the amount to be paid at maturity and coupon payments indexed to foreign currency are treated as though they are denominated in that foreign currency, interest, other economic flows, and positions for these instruments should be calculated using the same principles that apply to foreign-currency-denominated instruments. Interest should accrue throughout the period using the foreign currency as the currency of denomination and converted into the domestic currency using mid-point market exchange rates. Similarly, the amount outstanding should be valued using the foreign currency as the unit of account with the end of period exchange rate used to determine the domestic currency value of the entire debt instrument (including any accrued interest) in the international investment position. Changes in market values of debt securities due to exchange rate movements and interest rate changes are treated as revaluations.

**12.65** When both the amount to be paid at maturity and coupon payments are indexed to a broad-based reference item, interest accruals during an accounting period can be calculated by summing two elements: the amount resulting from the indexation of the coupon payment (as described in paragraph [12.60]) that is attributable to the accounting period, and the change in the value of the amount outstanding between the end and beginning of the accounting period arising from the movement in the relevant index (as described in paragraph [12.61(a)]). When both the amount to be paid at maturity and coupon payments are indexed to a narrow index that includes a holding gain motive, interest accruals for any accounting period can be determined by fixing the yield-to-maturity at issuance as explained in paragraph 12.61(b).

***Debt securities with embedded derivatives***

**12.66** For debt securities with embedded derivatives, such as call, put, or equity conversion options, the accounting for accrued interest is the same as for securities that do not have such features. For all periods leading up to the exercise of the option, the interest accrual is unaffected by the presence of the option. When the embedded option is exercised, the securities are redeemed and accrual of interest ceases.

### **Box 12.4. Numerical Example of Calculation of Interest Accrual on an Index-Linked Bond—Narrowly Based Index**

A bond is issued on Jan 1, Year 1 at a price 1000 for five years, with no coupons, indexed to a narrow price index. The index value at the beginning of the period is 100. (The numbers are the same as the example in Box 12.3, but the treatment differs because the narrow index treatment is applied in Box 12.4.) Market interest rates are 8 percent per annum at the time of issue.

The index and bond values, with the derived interest and revaluations are as follows:

	Broad Price Index			Bond
	End of Period	Interest	Revaluation	Dec 31
Start year 1	100			1000
Year 1	107.0	80	–22	1,058
Year 2	113.0	86	–43	1,101
Year 3	129.0	93	124	1,318
Year 4	148.0	101	100	1,519
Year 5	140..3	109	–225	1,403
Year 1–5		469	–66	

Notes:

- The total increase in value over the five years (i.e.,  $469 - 66 = 403$ ) is determined by the movement of the index (i.e., 40.3 percent increase).

- According to the debtor approach (see paragraph 12.52(a)), the interest in each period is fixed according to the interest rate at inception. The interest in Year 1 is 80 (8 percent of 1000), in Year 2 it is 86 (8 percent of 1000 + 80), in Year 3 it is 93 (8 percent of 1000 + 80 + 86), and so on.
- The revaluation for the whole life of the bond is due to the difference between the increase in the index and the compound increase that would have occurred at the market rate of interest. (Revaluations also arise for individual periods during the life of the bond because of changes in market conditions, such as changes in market interest rates, credit ratings, and expectations about the future path of the index.)
- Fluctuations in market interest rates cause changes in the value of the bond, but the calculation of interest is unaffected.

#### ***d. Fees on securities lending, gold loans, and on crypto lending***

**12.67** Securities lending without cash collateral consists of the delivery of securities for a given time period. (This is discussed further in paragraphs [7.58–7.61].) Usually the borrowers (e.g., brokers) subsequently on-sell the securities outright to other clients. The ability of the borrower to on-sell the securities reflects that legal ownership is transferred to the borrower, while the economic risks and rewards of ownership remain with the original owner. In return, the “lender” receives a fee from the “borrower” for the use of the security. Gold loans consist of the delivery of gold for a given time period. They may be associated with physical gold or (less frequently) unallocated gold accounts. As with securities lending, legal ownership of the gold is transferred (the temporary borrower may on-sell the gold to a third party), but the risks and benefits of changes in the gold price remain with the lender. Gold borrowers (usually market dealers or brokers, but also gold producers and industrial gold users) often use these transactions to cover their sales to third parties in periods of (temporary) gold shortage. A comparable fee is paid to the original owner for the use of the gold. The amount of the fee is determined by the value of the underlying asset and the duration of the reverse transaction. Warrants may also sometimes be lent.

**12.68** Securities and monetary gold are financial instruments and thus the fees for securities lending without cash collateral and gold loans are payments for putting a financial instrument at the disposal of another

institutional unit. Accordingly, fees on securities lending (equity securities as well as debt securities) and gold loans accrue to the security owner or gold owner and are treated as interest (with the corresponding entry in other accounts receivable/payable; see paragraph [5.73]). As a simplifying convention, fees paid on loans of nonmonetary gold are also treated as interest. For securities lending, although, in some circumstances, the fee is payable to the custodian in the first instance (and used to defray custodial charges, in whole or in part), in principle, all of the fee is payable to the owner of the security who, in turn, is deemed to pay part or all of it to the custodian in a separate transaction. (Amounts accruing to custodians are included under custodial services, discussed under financial services in paragraphs [10.121 and 10.124].)

**12.68a** Crypto lending is a process where institutional units lend their crypto assets to other institutional units for a specified period in exchange for an agreed payment/revenue in crypto assets or in fiat currencies. Fees payable to the owners of crypto assets without a corresponding liability designed to act as a medium of exchange (see paragraph 14.xx) used for crypto lending should be recorded, by convention, as interest.

### ***e. Investment income accrued while securities are under reverse transactions***

**12.69** The economic owner of securities continues to record dividends and the accrual of interest on the securities even when the legal ownership changes under a reverse transaction (see paragraph [7.58]) or a custodian has on-sold the securities to a third party (see paragraph [10.124]). If the reverse transaction covers the period when dividends or coupons are payable, the security taker is typically obliged to pass these amounts on to the security lender. Even if securities under a reverse transaction are on-sold by the security taker to a third party, the security taker is still obliged to compensate the amounts to the security lender. The payments are called “manufactured interest” and “manufactured dividends.”) Manufactured interest and dividends are recorded as negative credits/revenues for a security taker who has on-sold the securities. See also [Annex 7, section C].

## 5. Investment income attributable to policyholders in insurance, standardized guarantees, and pension funds

Reference 2025 SNA Chapter 8: Earned income accounts, Section E.4.

**12.77** *Investment income attributable to insurance policyholders consists of investment income receivable from the investment of insurance technical reserves, which is attributed to the policy holders. For an institutional unit operating a standardized guarantee scheme against fees, there may also be investment income earned on the reserves of the scheme and this should also be shown as being distributed to the units paying the fees. Investment income payable on pension entitlements is investment income received from the investment of assets accumulated for defined contribution schemes, and the unwinding of the discount of the entitlements for defined benefit schemes. The latter may also include some entitlements related to nonpension social insurance schemes.*

**12.78** The operations of insurance corporations, standardized guarantee schemes, and pension funds include charging premiums, paying claims, and managing and investing funds. However, the observed transactions do not always reflect the underlying economic relationships between the insurance corporations or pension funds and policyholders, and it is necessary to rearrange these operations so that the underlying economic behavior is reflected in the economic accounts. One such rearrangement is the imputation of investment income attributable to policyholders in insurance corporations, standardized guarantee schemes, and pension funds. The measurement of insurance and pension services is described in paragraphs [10.109–10.117].

**12.79** Insurance corporations, standardized guarantees schemes, and pension funds hold technical reserves, provisions and entitlements to meet obligations arising from claims and entitlements. The definition and classification of these items are described in paragraphs [5.62–5.63 and 7.63–7.68]. The technical reserves, provisions and entitlements represent a liability of the insurer, issuer of standardized guarantees, and pension fund, and a corresponding asset of the policyholders and beneficiaries. To meet their liabilities, the insurers, guarantors, and



pension funds make investments in various assets, such as financial assets, land, or buildings. However, the investments by insurers, guarantors, and pension funds are not necessarily equal to the technical reserves and entitlements.

**12.80** For nonlife insurance policies, the technical reserves represent prepayment of premiums and reserves against outstanding claims. Guarantors have technical provisions for calls under standardized guarantees. The investment income on these technical reserves, excluding any holding gains and losses, is treated as income attributable to the policyholders

**12.81** For life insurance, the insurers' liability equals the present value of expected claims from existing policyholders. It is common also for "bonuses" to be attributed to the policy holders each year. (See paragraph [A8.33] for further information.). The bonuses declared to holders of life policies should be recorded as part of investment income receivable by the policyholders and are treated as premium supplements being paid back to the insurance corporations. The fact that some of it may derive from holding gains does not change this designation; as far as the policyholders are concerned it is the return for making the financial asset available to the insurance corporation.

**12.82** For defined contribution pension schemes, the investment income payable on pension entitlements is measured in the same way as for the investment income attributable to insurance policyholders (i.e., equal to the investment income on accumulated assets, excluding any holding gains and losses, plus any income earned by renting land and buildings owned by the fund). For defined benefit pension schemes, because the value of entitlements is the present value of future payments, the investment income payable on pension entitlements is measured as the increase in benefits payable because the date when the entitlements become payable is closer. The amount of the increase is not affected by whether the pension scheme actually has sufficient funds to meet all the obligations nor by how it is funded (whether from investment income or holding gains, for example). (In contrast, changes in model assumptions are recorded under other changes in volume—see paragraph [9.24].)

**12.82a** A pension sponsor (such as the employer) may be obliged to meet liabilities of a defined benefit scheme in case of shortfall. The shortfall should be recorded as a claim of the pension fund on the pension

sponsor. Imputed investment income on this claim, is recorded as income from the pension sponsor to the pension fund, which would be negative in the case of an excess.

**12.83** Investment income attributable to policyholders is retained by the insurance corporations, guarantors, and pension funds in practice. It is therefore treated as being paid back by the policyholders to the insurance corporations, guarantors, and pension funds in the form of premium supplements that are additional to actual premiums payable under the terms of the insurance and pension policies. The corresponding entries to the investment income attributable to insurance policyholders for nonlife insurance, including standardized guarantees, are called premium supplements and taken into account in deriving insurance and pension services. (See paragraphs [11.111], [12.41–12.42] and Appendix [6c], Topical Summary—Insurance, Pension Schemes, and Standardized Guarantees.)

**12.84** The total amount of investment income attributable to policyholders is allocated among policyholders. The allocation to policyholders could be made in proportion to actual premiums payable by them. Investment income payable by resident insurers, guarantors, and pension funds to nonresident policyholders can be estimated by multiplying the gross premiums earned from nonresidents by the ratio of investment income attributable to policyholders to gross premiums earned for all operations. To the extent that these ratios vary for different lines of business (reinsurance, marine, life, pension funds, standardized guarantees, etc.), the calculations should be made separately. Such investment income receivable by resident policyholders from nonresident insurers, guarantors, and pension funds is not readily observable. Ratios of investment income attributable to policyholders to premiums that are observed in other similar cases could be used to calculate investment income receivable.

## 6. Rent

Reference:

2025 SNA, Chapter 8, Earned Income Accounts, Section E.5

**12.85** *Rent covers income receivable by the owner of a nonproduced natural resource or another non-produced nonfinancial asset (the lessor or landlord) for putting the asset at the disposal of another institutional*

*unit (a lessee or tenant) for use in production. The terms under which rent is payable are often expressed in a (resource) lease. A natural resource lease is an agreement whereby the legal owner of a natural resource makes it available to a lessee in return for a regular payment recorded as rent.*

**12.86** Examples of rent include amounts payable for the use of land, for the extraction of mineral deposits and other subsoil assets, and for fishing, forestry, and grazing rights. The regular payments made by the lessees of natural resources such as subsoil assets are often described as royalties, but they are classified as rents. Payments or receipts by government of rent on land without buildings (e.g., for military bases) should be shown as rent, not as government goods and services n.i.e. If a single payment covers both the return on land and structures on it and there is no objective basis on which to split the payment for the use of land and structures, the whole amount should be treated as rent when the value of land is believed to exceed the value of structures, and as purchase of services (rental) otherwise. Other types of rent relate to, for example, payments for rights to use marketing assets, when the income component (rent) can be separated from the service component (see also paragraph [10.140]), fees paid between sporting clubs for so-called loan agreements on players, and payments to households giving explicit consent to monitor their behavioral patterns in the form of observable phenomena. *(Observable phenomena related to data is a term referring to a fact or situation whose characteristics or attributes may be recorded for the collection of data. Observable phenomena are by nature nonproduced.)*

**12.87** Usually, the entity using land or natural resources is a resident institutional unit. In relation to the use of natural resources, there are instances where a split asset approach is followed as discussed in 2025 SNA Chapter 27, and a notional unit would need to be created if there is not already a resident institutional unit. However, notional units are never created in the case of nonresident fishing operators (see paragraph 4.XX).

**12.87a** If the user is a nonresident and does not have ownership of the resource, then a cross-border transaction on rent arises. For example, a forestry or fishing operation that pays for access to naturally growing timber or fish in another economic territory gives rise to rent in the external accounts. It is also possible that other natural resources adjoining a border could be extracted from a base on the other side of the border, thus giving rise to rent. Payments for overflight rights are also rent, unless they relate primarily to air traffic control, in which case they would be other transport services. Rent arrangements can be contrasted with:

- (a) outright ownership of the resources concerned, which would be recorded as an international transaction in a natural resource (see paragraph [13.9]) or, more likely, give rise to a notional direct investment enterprise that owns the resource (paragraphs [4.34–4.40]) );
- (b) when the right to use an asset amounts to an economic asset but not outright ownership of the underlying asset, the purchase and sale are classified under contracts, leases, and licenses (e.g., a right to use a natural resource for 10 years, such as a spectrum license; see paragraph [13.11]); or
- (c) rentals, which represent charges for the use of fixed assets, such as houses and machinery (see paragraphs [10.153–10.157] on rentals arising from operating leases).

**12.88** Notional direct investment enterprises created for holding land and leases on land for long periods will normally generate rent (or travel or operational leasing services if there is a building on the land). Notional units are described in paragraphs [4.34–4.40]. When the land or buildings are used by the owners (who are nonresidents) of the notional unit, an imputation for rent (in the case of use of land) or travel services (e.g., in territories that had a large number of vacation homes owned by nonresidents) or operational leasing (if non-resident enterprises own premises for their own use) would be necessary. These imputations are recorded under relevant categories of the current account. The income arising from the notional direct investment enterprise is recorded under direct investment income. For example, if the vacation home is rented, the notional unit receives the payment for accommodation and generates net earnings that are considered withdrawals from income of quasi-corporations, generated by the provision of accommodation services.

**12.89** Rent is recorded on an accrual basis; that is, rent is treated as accruing continuously to the owner throughout the period of the contract agreed between the owner and the user. The rent recorded for a particular accounting period is, therefore, equal to the value of the accumulated rent payable over that period of time, as distinct from the amount of rent due to be paid during that period or the rent actually paid. An up-front rent payment covering several periods gives rise to a financial asset of the lessee and liability of the lessor, classified under accounts receivable/payable. Similarly, a payment after the rent period(s) gives rise to other accounts receivable/payable.

**12.90** If a lessee subleases a nonproduced nonfinancial asset, the income from the subleasing should be classified as rent, as should the income payable to the owner of the nonproduced nonfinancial asset by the owner of the lease.

**12.90a** If significant, payments for the use of nonproduced nonfinancial assets other than natural resources can be shown separately as a supplementary sub-item of rent.

## **7. Taxes on production and on imports, and subsidies**

**12.91** In the SNA, the term taxes on production and on imports consists of “taxes on products” and “other taxes on production”, and subsidies consists of “subsidies on products” and “other subsidies on production”. Taxes on production and on imports and subsidies are included in the earned income account. (See paragraphs [10.180–10.181 and 13.30] for distinction between taxes and services.) Taxes on income and wealth are included in the transfer income account (see paragraphs [12.28–12.31] for taxes on income and wealth). Cross-border taxes on production and on imports and subsidies are normally not significant except perhaps in economic unions. They arise if an international or regional organization levies its own taxes or pays subsidies (which may also be done through national governments). They may also arise when economic activity by nonresidents (such as short-term construction or installation projects) is insufficient to constitute a branch. Although taxes on products may be levied at various stages (production, distribution, or use), they are included in the prices of goods and services. Therefore, for purchasers, the prices paid include relevant taxes on products, while for governments such taxes are considered earned income. Taxes on production and on imports may include payments of stability fees levied by governments on financial institutions to assist ailing financial institutions, sometimes called bank levies. Payments to stability schemes should be classified as either a tax or as a payment for an insurance-type of transaction. The treatment in the balance of payments should be consistent with the national accounts treatment.

**12.92** Taxes and subsidies on products and production should be recorded in the earned income account to maintain the conceptual consistency with *SNA*. The 2025 *SNA* distinguishes between

- (a) Taxes on products, which are payable per unit of a good or service. Examples include value-added tax, import duties, export taxes, and excise; and
- (b) Other taxes on production. Examples include payroll taxes, recurrent taxes on buildings and land, and business licenses.

The same distinction is made for subsidies. As mentioned in paragraph [12.4], the balance on the earned income account makes up the difference between GDP and GNI. Subsidies are shown separately from taxes, rather than being deducted from taxes.

**12.93** In some cases, an exporter of a good contractually agrees to pay import duties. In such cases, the duties are outside the scope of the distribution of earned income in the external accounts. This treatment is adopted because the duties arise from the process of importation, and so they are an obligation of the importer. They are, therefore, treated as payable by the importer, and are resident-to-resident transactions. The amount of import duties paid by the exporter, therefore, is not included in the FOB value of the goods. Similarly, if an importer agrees to pay export taxes, the tax is still an obligation of the exporter. The amount of the export tax paid by the importer, therefore, is included in the FOB value of the goods and rerouted through the exporter. (See also paragraph 10.34.) (This treatment is the same as applies to arrangements to pay freight and insurance services.)

**12.94** In some circumstances, a duty or other tax may be imposed by the customs authorities without ownership being acquired by a resident of that territory. Examples may include goods to be processed, repaired, or stored, or for use by visitors. In such cases, when customs duties are payable by nonresidents, the duties are recorded as taxes on products payable by nonresidents.

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## C. Investment Income and Functional Categories

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**12.95** This section deals with investment income that is included under each functional category of financial assets and liabilities. It also discusses specific issues related to investment income for a functional asset

category. A functional asset category includes different types of financial instruments that serve the same function, and hence a functional category can include different types of investment income. Financial derivatives and employee stock options do not give rise to investment income.

## 1. Direct investment income

**12.96** Direct investment income includes all investment income arising from direct investment positions between resident and nonresident institutional units. A numerical example of the calculation of reinvested earnings is given in [Box 12.5]. As noted in paragraph [6.28], debt between selected affiliated financial intermediaries is not included in direct investment, so the corresponding income on those instruments is also classified as portfolio or other investment income. Rare cases of other earned income, such as remuneration of employees and rent between direct investors and direct investment enterprises, are not included under direct investment income. Investment income attributable to insurance policyholders, where the parties are in a direct investment relationship, is recorded as direct investment income (see paragraph [6.27]); considering that it is relatively uncommon, this *Manual* includes it under interest and similar returns.

**12.97** Direct investment relationships are defined in paragraphs [6.8–6.24]. Dividends, withdrawals from income of quasi-corporations, and interest and similar returns can apply for any of these types of direct investment relationships. Reinvested earnings are attributed to direct investors only when equity participation by the direct investor meets the 10 percent threshold. Three types of direct investment relationships and associated investment income flows can be distinguished:

- (a) Direct investors' investment in direct investment enterprises. This category includes investment income flows (distributed earnings, reinvested earnings, and interest) between the direct investor and its direct investment enterprises (whether in an immediate relationship or not).
- (b) Reverse investment (defined in paragraph [6.40]). This type of relationship covers investment income flows on liabilities of direct investors to their direct investment enterprises and on claims of direct investment

enterprises on their direct investors. This category includes distributed earnings and interest. There are no reinvested earnings on reverse equity because the 10 percent threshold has not been met.

- (c) Between fellow enterprises (see paragraph [6.17(c)]). This covers investment income flows between all fellow enterprises that belong to the same direct investment group. This category includes distributed earnings and interest. There are no reinvested earnings between fellows because the 10 percent threshold has not been met.

**12.98** Investment income associated with various types of financial instruments is discussed in Section B above. Direct investment income should be presented by the type of income (income on equity, and interest and similar returns) for both income receivable on holdings of direct investment external assets and income payable on external direct investment liability positions (see Table 12.1). Interest can be broken down further by type of financial instruments.

### **Box 12.5. Numerical Example of Calculation of Reinvested Earnings of a Direct Investment Enterprise**

Profit and Loss Statement of Enterprise A

Nonresident direct investors own 50 percent of the equity of Enterprise A.

Revenue:		
1.	Sales of finished goods	20,000
1a.	+ increase in inventories of finished goods	500
2.	Transport services provided	3,000
3.	Repair services	6,000
4.	Dividends	3,000
5.	Interest on bonds	1,000
6.	Profit on sale of property	1,000
7.	Total revenue (1 through 6)	34,500
Expenses		
8.	Raw materials purchased	12,000
8a	– increase in inventories of materials	2,000



9.	Salaries and wages	5,000
10.	Office rental	500
11.	Travel of employees	2,000
12.	Fuel, electricity, other costs	500
13.	Depreciation	1,000
14.	Interest on loans	1,000
15.	Bad debt provisions	2,000
16.	Total expenses (8 through 15)	22,000
17.	Net income (before taxes)	12,500
18.	Taxes on income	4,000
19.	Net income (after taxes)	8,500
20.	Dividends payable	5,000

Reinvested earnings can be derived by:

(a) Adjusting net income after taxes:

Net income after taxes (line 19 = 8,500)

– revenue not part of output, earned income or transfer income (namely, holding gains, line 6 = 1,000)

+ expenses not being a transaction (namely, bad debt provisions, line 15 = 2,000)

=9,500, multiplied by 0.5

= 4,750

-dividend payable to direct investors (5000 multiplied by 0.5 = 2,500)

= 2,250

(b) From the national accounting relationships

**First calculate entrepreneurial income:**

Operating revenue (line 1+line 1a + line 2 + line 3; which gives 29,500);

– operating expenses; (line 8-line8a + line 9 +line 10 + line 11 + line 12; which gives 18,00)

– depreciation (line 13, which gives 1,000) (Assumes business accounts depreciation is an acceptable approximation to national accounts depreciation. Adjustments may be possible if it is not.)

+ property income receivable (line 4 + line 5, which gives 4,000);

– property income payable ( line 14 ; which gives 1,000)

=13,500 (entrepreneurial income)

**Next calculate distributable income:**

Entrepreneurial income (13,500)

+ current transfers receivable (none)

-current transfers payable (line 18 = 4,000)

=9,500 (distributable income)

**Finally calculate reinvested earnings on direct investment:**

Distributable income multiplied by the direct investor's share in the equity of the enterprise

9,500 multiplied by 0.5 = 4,750

- direct investor's share of dividends (=line 20 multiplied by 0.5 = 2,500)

=2,250

In practice, data for these calculations may not always be available monthly or quarterly, or may not be available for the most recent period(s). As a result, it may be necessary to derive some items from partial data or by methods, such as extrapolation, ratios, and models.

**12.98a** Direct investment income can be further classified by domestic institutional sectors (see Chapter 4, Economic Territory, Units, Institutional Sectors, and Residence; Section D, Institutional Sectors) for direct investors abroad and for direct investment enterprises in the reporting economy. Direct investment income by institutional sector and other supplementary disaggregations, such as by ownership and by size can provide

analytically useful information on the types of enterprise and the main partner economies involved in these flows (see also Chapter 15, Section [E.2]).

## ***Transfer pricing***

**12.101** Transfer pricing at values that differ significantly from arm's length prices is usually associated with shifting resources between related enterprises, so it relates to direct investment income measures.

Transfer pricing may be motivated by income distribution, equity buildups or withdrawals, or to shift income to an affiliate in a lower tax economy. Examples may be the provision of goods and services without explicitly charging, or at understated or overstated values. Where distorted transfer pricing is identified and quantified with a high degree of certainty, the relevant entry could be adjusted to an arm's length value (see also paragraphs 3.77–3.78). The adjustments need to be made consistently in the accounts of each of the economies involved and compilers need to cooperate and exchange information in order to avoid asymmetrical recordings of bilateral data. In addition to the adjustment to the flow itself, there should be a corresponding entry, as stated below:

- (a) if a direct investment enterprise is overinvoiced on a good or service provided by the direct investor or

- (b) if a direct investor is underinvoiced on a good or service provided by the direct investment enterprise,

then the transfer pricing acts as a hidden dividend from the direct investment enterprise, so dividends should be increased by the difference between the market value of the goods and services and the prices actually charged:

- (a) if a direct investment enterprise is underinvoiced on a good or service provided by the direct investor or

- (b) if a direct investor is overinvoiced on a good or service provided by the direct investment enterprise,

then the transfer pricing acts as a hidden investment in the direct investment enterprise, so direct investment equity flows should be increased by the difference between the market value of the goods and services and the prices actually charged.

Table 12.3. Detailed Breakdown of Other Investment Income
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	Credits/ Reve- nues	Debits/ Expenditures
<b>Other investment income</b>		
Income on equity and investment fund shares		
Income on equity other than investment fund shares		
Dividends and withdrawals from income of quasi-corporations		
Income on investment fund shares		
Dividends		
Reinvested earnings		
Interest and similar returns		
Deposits		
Loans		
Similar instruments in the case of Islamic finance		
Trade credit and advances		
Other accounts receivable and payable		
SDR allocations	n.a.	
Nonmonetary gold loans and crypto lending		
Investment income attributable to policyholders in insurance, pension Funds, and stand- ardized guarantee schemes		

Note: This table is expository; for standard components, see [appendix 9].
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**12.102** The adjustments for transfer pricing have implications for direct investment income and for data of the counterpart economy. It is, therefore, useful to exchange information to the extent possible with counterpart economies in order to avoid asymmetrical recordings.

## 2. Portfolio investment income

**12.103** Portfolio investment income includes income flows between residents and nonresidents arising from positions in equity and debt securities other than those classified under direct investment or reserve assets. Financial instruments covered in portfolio investment are described in paragraphs [6.54–6.57].

**12.104** Two types of portfolio investment income are distinguished at the first level, namely, income on equity securities and investment fund shares, and income on debt securities. The income on investment fund shares includes both dividends and reinvested earnings. Income on equity securities other than investment fund shares includes only distributed earnings (dividends). Interest can be classified by types of debt security and by maturity. Such a detailed classification of portfolio investment income would ensure consistency with both instrument and functional classifications of financial assets and liabilities.

**12.105** Portfolio investment income can be further classified by domestic institutional sectors for owners of securities as well as issuers of securities. A variety of other supplementary disaggregations by foreign sector, currency of denomination, and so forth may be desirable for specific analytical purposes.

## 3. Other investment income

**12.106** Other investment income covers flows between resident and nonresident institutional units in regard to interest on deposits, loans, trade credit and advances, and other accounts receivable/payable; income on equity and investment fund shares that are not classified in any other functional categories; and investment income attributable to policyholders in insurance, standardized guarantees, and pension funds.<sup>3</sup> Interest payable on SDR allocations is also recorded under other investment income. Fees for nonmonetary gold loans and fees on lending of crypto assets without a corresponding liability designed as a medium of exchange should also be included in interest under other investment income (see paragraph [12.68 and 12.69]). Table [12.3] shows various types of other investment income and associated financial instruments.

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<sup>3</sup> Interest is not generally charged on accounts receivable or payable. However, when the time gap becomes unusually long and the amount of accounts receivable or payable is very large, the conclusion may be that implicitly an interest fee has been charged.

**12.107** Other investment income on equity excludes income on direct investment equity and portfolio investment in equity securities. Equity participation in some incorporated or unincorporated enterprises (such as partnership or joint ventures) does not qualify either as direct investment (because the equity participation is below the 10 percent threshold) or as portfolio investment (because they are not equity securities). Such equity participation is classified under other investment (see also paragraphs [5.26 and 6.62]) and any income distributed to the owners should be classified in other investment income. Similarly, some investment funds may be organized by and limited to a small number of members whose investment in the investment fund is not negotiable and may not meet the definition of portfolio investment. Both distributed and reinvested earnings on such investment fund shares are classified under other investment income. Income on equity in international organizations that is not tradable is also classified under other investment income on equity.

**12.108** Other investment income should be further classified by type of financial instruments. It can also be classified by the domestic institutional sectors (for both income receivable on holdings of external assets and income payable on external liability positions).

## **4. Income on reserve assets**

**12.109** Data on income on reserve assets is useful for studying rates of return on reserves, and for ensuring that rates of return on other categories exclude reserves. Investment income on reserve assets includes income on equity and investment fund shares, and interest. Fees on security lending and monetary gold loans (as discussed in paragraph [12.67]) and interest on unallocated gold accounts (as discussed in paragraph [6.80]) are also included under interest on reserve assets. Income on equity and investment fund shares can be further classified into dividends on equity securities and income attributable to investment fund shareholders. The latter includes both distributed and reinvested earnings. Interest receivable can also be further classified by type of financial instruments. If not available for publication, income from reserve assets should be included in other investment - interest.

**12.110** Interest on SDR holdings is shown on a gross basis under income on reserve assets. That is, the value of interest payable on SDR allocations is not deducted. (Interest payable on SDR allocations is shown as income under other investment liabilities, as shown in Table [12.3].)