Annex 8

Insurance and Pensions

A. General Issues

Reference:

2025 SNA, Chapter 24, Insurance and Pensions

A8.1 Insurance provides individual institutional units exposed to certain risks with financial protection against the consequences of the occurrence of specified events. In addition, insurers often act as financial intermediaries who invest funds collected from policyholders in financial or other assets to meet future claims.[1]

A8.2 Pension schemes are established for the purpose of providing benefits for retirement or for invalidity. Pension schemes may be operated by a separately constituted fund or by a fund that is part of the employer, or be unfunded. It may also be administered by an insurance corporation Pension funds are similar to insurance in that they act as intermediaries for investing the funds for their beneficiaries and redistribute some risks.

A8.3 Insurance and pension fund operations have common features, but can be distinguished in that life insurance and pension funds include a large saving component, whereas the primary objective of nonlife insurance (including term life insurance) is to pool risk.

A8.4 The transactions undertaken by insurers include charging premiums, paying claims, and investing funds. Similarly, pension funds' transactions include receiving contributions, paying benefits, and investing funds. To analyze the underlying economic nature of these operations, it is necessary to rearrange these processes to derive the service, investment income, transfer, and investment

[1]In the context of insurance, a claim is the obligation of an insurance company to pay the policyholder under the terms of the policy because an insured event has occurred. "Claim" is also used in this *Manual* to mean financial asset.

elements. Users may also be interested in supplementary data on insurance transactions before the adjustments discussed in this section, particularly data on premiums and claims. (Box A8.1 provides a numerical example on nonlife insurance to show the calculation of the derived items for service, investment income, transfers, and investment.)

A8.5 Aspects of insurance are dealt with in several chapters:

- Insurance corporations and pension funds are defined as institutional subsectors in paragraphs 4.88–4.89;
- Nonlife insurance technical reserves, life insurance and annuity entitlements, pension entitlements, and provisions for calls under standardized guarantees are defined as financial instruments in paragraphs 5.62–5.68 and as part of the other investment functional category in paragraph 6.61;
- The measurement of nonlife insurance technical reserves, life insurance and annuity entitlements, and pension entitlements in the IIP is discussed in paragraphs 7.63–7.68;
- Financial account entries are discussed in paragraphs 8.46–8.49;
- Other changes in volume associated with nonlife insurance technical reserves, life insurance and annuity entitlements, and pension entitlements are discussed in paragraph 9.24;
- Insurance and pension services are discussed in paragraphs 11.109–11.117;
- The investment income accruing to policyholders and contributors is discussed in paragraphs 12.77–12.84; and
- The transfers associated with these schemes are discussed in paragraphs 13.41–13.46 and 14.24.

A8.6 Cross-border insurance is particularly common in specialized areas such as reinsurance and high-value items such as insurance of ships and aircraft. For some small economies, the small size of their risk pool means that a wider range of items tends to be insured with nonresidents. With international mobility of population, life insurance and pensions can also occur cross-border on a significant scale.

A8.6-1 *Direct insurance is between an insurance company and another type of institutional unit.* There are two types of direct insurance, life and nonlife insurance. *Life insurance is an activity whereby a policyholder makes regular payments to an insurer in return for which the insurer guarantees to provide the policyholder (or in some cases another nominated person) with an agreed sum, or an annuity, at a given date or earlier if the policyholder dies beforehand. Non-life insurance is an activity similar to life insurance except that it is an insurance providing cover to the policyholder against loss or damage suffered as a result of accidents, sickness, fire, etc. It also includes term life insurance.* A policy that provides a benefit in the case of death within a given period but in no other circumstances, usually called term (life) insurance, is regarded as non-life insurance because, as with other non-life insurance, a claim is payable only if a specified contingency occurs and not otherwise. In practice, because of the way in which insurance corporations keep their accounts, it may not always be possible to separate term (life) insurance from other life insurance. In these circumstances, term (life) insurance may have to be treated in the same way as life insurance for purely practical reasons. See paragraphs 24.6-24.9, *2025 SNA* for additional details.

A8.6-2 Reinsurance is insurance between one insurance corporation and another with the aim to spread the insurance risk. That is, reinsurance allows insurance risk to be transferred from one insurer to another. Many insurers act as both direct insurers and reinsurers. There may be chains of transferring risk, from insurer to reinsurer to secondary reinsurer and so on. Reinsurance companies and their policyholders are often residents of different economies because of the specialized functions of reinsurance and the objective to spread risk. A direct insurer may pass on an entire set of risks (i.e., the direct insurer is like a retailer), a proportion of risks, or the risk of claims being more than a specified amount (e.g., arising from a catastrophic loss) to a reinsurer. Because it is often used as protection against exposure to large losses, reinsurance is particularly likely to be subject to irregular transactions.

A8.9 The principles for measurement of reinsurance and direct insurance services are the same. They are shown as separate items on a supplementary basis, as are other components such as auxiliary services and standardized guarantees.

A8.9-1 In some countries, one can observe hybrid insurance products that are a mixture of life and nonlife insurance. These products should be allocated to one category or the other depending on which features are predominant, i.e., the saving component (life insurance) or the component whereby claims are paid only if the insured event occurs (nonlife insurance).

B. Nonlife Insurance

Reference:

2025 SNA, Chapter 24, Insurance and Pensions.

1. Types of nonlife insurance

A8.7 Types of nonlife insurance include accident and health; term life; marine, aviation, and other transport; fire and other property damage; pecuniary loss; general liability; and credit insurance.

A8.10 Freight insurance is a form of nonlife insurance that raises particular issues for valuation of goods. Like freight transport, as discussed in paragraph 11.78, the identification of who pays the insurance and whether it is included in the price of the good is determined by the FOB valuation concept, as discussed in paragraph 10.116.

A8.11 Nonlife insurance is distinguished from life insurance in that it pays claims only if an insured event occurs. That is, nonlife insurance is designed primarily for pooling risk, rather than as an investment. Therefore, nonlife insurance claims and premiums less service charges are recorded as transfers, while the equivalents for life insurance are recorded in the financial account. In contrast to life insurance, term life insurance claims are payable only on the death or incapacity of the insured, and so term life insurance is included in nonlife insurance.

2. Role of reserves in nonlife insurance

A8.12 Insurance policies are paid in advance, while claims are paid only after the insured events happen, sometimes much later. Insurance technical reserves represent the amounts identified by insurance companies to account for these prepayments of premiums and claims incurred but not yet paid. That is, reserves can be seen as the application of usual accrual accounting principles. Reserves for claims reported but not yet resolved, and estimates of claims incurred but not yet reported, should be included, as they relate to insurable events that have already occurred.

A8.13 Insurance corporations in some economies may also set aside other reserves, such as amounts to cover fluctuations in claims between periods (e.g., the increase in claims in the event of a natural disaster). However, if there is no entitlement by any counterparty to these reserves, they cannot be recognized as an asset of the policyholders.

A8.14 Insurance companies hold assets to meet the liabilities to policyholders represented by the reserves. The management of these financial and nonfinancial assets is an integral part of the business of insurance. The income generated by these investments has a considerable influence on the level of premiums that insurance enterprises need to charge (indeed, in some cases, they have allowed claims to exceed actual premiums earned). Consequently, the income earned on the investment of the insurance technical reserves, excluding holding gains and losses, is treated as being receivable by the policyholders who are then treated as paying it back to the insurance enterprises as premium supplements.

3. Value of nonlife insurance service output

A8.15 Actual premiums earned and investment income represent the inflow of resources to the insurance company, whereas the claims incurred are the resources allocated to the policyholders. The margin between these inflows and outflows is the amount available to the insurance company to cover its costs and provide an operating surplus. This margin represents the value of insurance services provided.

A8.16 The value of output of nonlife insurance services (also known as insurance service charges) can be expressed with the following formula, following an expectations approach or accounting approach:

Actual premiums earned;

\+ premium supplements;

– Adjusted claims incurred;

While in the case of expectation approach, adjusted claims are estimated from past experience, they are determined by using claims incurred plus the changes in equalization provisions (and, if necessary, changes to own funds) in the case of accounting approach. See paragraph A8.22 for guidance on the expectation and accounting approaches.

A8.16-1 If the necessary accounting data are not available and the historical statistical data are not sufficient to allow reasonable average estimates of output to be made, the output of non-life insurance may be estimated as the sum of costs (including e.g., intermediate consumption, remuneration of employees, depreciation of and net return to capital used in production, and rent payable on (rented) non-produced non-financial assets used in production) plus an allowance for "normal profit". However, since any reasonable estimate for normal profit is likely to involve expected claims, this option is hardly different from the expectations approach.

a. Actual premiums earned

A8.17 "Actual premiums earned" refers to those parts of the premiums payable in the current or previous periods that cover the risks incurred during the accounting period. Premiums earned are on an accrual basis, so differ from premiums received because insurance policies are usually paid in advance. Actual premiums earned should be calculated by deducting any rebates payable to the policyholder. In the case of a reinsurer accepting risks on proportional reinsurance contracts, actual premiums earned are recorded after deducting the reinsurance commissions payable to the direct insurer.

A8.18 Insurance premiums are normally paid in advance, so a measure on an accrual basis differs from premiums paid by the deduction of prepayments for insurance cover in future periods and adds back cover for the current period that was prepaid in previous periods.

b. Premium supplements

A8.19 Investment income earned on the assets invested to meet insurance companies' future liabilities, excluding any holding gains and losses, is attributable to insurance policyholders. The income is recorded in the earned income account as discussed in paragraphs 12.77–12.84 and A8.26. The same value is then treated as being paid back to the insurance companies as premium supplements. Premium supplements are added to premiums earned in the calculation of the value of insurance services, as shown in Box A8.1.

c. Adjusted claims incurred

A8.20 **Actual** claims payable are claims for events that occurred within the accounting period. Claims payable include claims paid within the accounting period plus changes in the reserves against outstanding claims. That is, claims on an accrual basis are recognized as due when an event takes place that gives rise to a valid claim, whether or not paid, settled, or reported during that period.

A8.21 Adjustments for claims volatility should be included in the calculation for lines of insurance subject to fluctuations. For example, major catastrophes such as earthquakes and hurricanes may be expected to occur, on average, once in each several years. If only claims incurred during a single accounting period are used in the formula, the resulting values of insurance services could be erratic, and even negative in catastrophic periods, and so are an inadequate measure of the production and pricing of insurance. In such cases, an adjustment to claims incurred should be made, to reflect a longer-term view of claims behavior, in line with insurance decision making. In periods when large values of claims are incurred, the adjustment would be negative (thus causing an increased value of the service), while in other periods, the adjustment would be positive (thus reducing the value of the service). However, for some types of insurance, there is limited volatility, and no adjustment is necessary. The term “adjusted claims” is used in the output formula describes the level of claims used in determining the value of output.

A8.22 The adjustments for claims volatility show the difference between actual claims in a particular period and a normally expected level of claims. The adjusted claims incurred may be calculated according to one of the following methods:

(a) The **expectations approach** is based on an estimate of adjusted claims incurred, using smoothed past figures of actual claims incurred or smoothed past ratios of actual claims incurred over premiums, applied to current premiums. It replicates the ex-ante model used by insurers to price their premiums on the basis of their expectations. When accepting risk and setting premiums, insurers consider their expectation of loss.[2] For estimating output, it is advisable to use information broken down by “line of business”, that is for motor insurance, buildings insurance, etc. separately. This allows for more accurate and detailed estimates, as each line of business may have different characteristics.

(b) The **accounting approach** is based on changes in insurers’ equalization reserves (see paragraph 5.64 (b)) and changes in own funds to account for the volatility of claims. In contrast to the expectation approach, the accounting approach uses ex post data, that is, observed claims incurred. It is to be noted that if changes in own funds are introduced in one given period to dampen the volatility of a claim in case of catastrophe, the rebuilding of own funds after this period will also intervene (with an inverse sign) in the formula for the next periods. Practices for calculation of equalization reserves vary, so they may not be sufficient to cover all volatility in claims.

e. Reinsurance

[2] In such a case, conceptually premium supplements (i.e., the investment income, excluding holding gains and losses, derived from the investment of the non-life insurance technical reserves) should also be estimated on the basis of past experience. However, since premium supplements are less volatile than claims, in practice no such adjustment may be necessary.

A8.23 As explained in paragraph A8.6-1, reinsurance allows insurance risk to be transferred from one insurer to another. The transactions between the direct insurer and the reinsurer are recorded as an entirely separate set of transactions and no consolidation takes place between the transactions of the direct insurer as issuer of policies to its clients on the one hand and the holder of a policy with the reinsurer on the other. The prepayments of premiums by the direct insurer to the reinsurer and claims incurred but not yet paid by the reinsurer are used by the reinsurer to earn investment income. This investment income, excluding any holding gains and losses, is treated as investment income payable to the direct insurer and returned to the reinsurer as a premium supplement. The output of reinsurance is measured in a way similar to that for direct nonlife insurance. However, there are some payments peculiar to reinsurance. These are commissions payable to the direct insurer under proportionate reinsurance and profit sharing in excess of loss reinsurance. Once these are taken into account the output of reinsurance can be calculated as:

Actual premiums earned less commissions payable;

\+ premium supplements;

– Adjusted claims incurred and profit sharing.

4. Exports and imports of nonlife insurance services

A8.24 The formula for total production of insurance services stated in paragraph A8.16 includes elements that may only be able to be observed by insurers in aggregate. For exported and imported insurance services, which represent the output provided to a subset of policyholders, additional methods are required to allocate totals.

A8.25 Usually, ratios will be able to be used to make estimates. The case of imports is particularly difficult, as the insurance companies are not residents in the economy of compilation and so data collection is constrained. In each case, the objective is to find a result consistent with the overall method, after taking into account which information is available in the circumstances. Possible methods are discussed in paragraph 11.114 and Box 11.4.

5. Investment income attributable to nonlife insurance policyholders (earned income account)

A8.26 Investment income earned on the assets invested to meet insurance companies' future liabilities is attributable to insurance policyholders. The income, excluding any holding gains and losses, is recorded in the earned income account as discussed in paragraphs 12.77–12.84. The same value is then treated as being paid back to the insurance companies as premium supplements in the calculation of the value of insurance services, as shown in paragraph A8.19 and Box A8.1 (and consequently increases the value of premiums less service charges).

6. Nonlife insurance premiums less service charges (transfer income account)

A8.27 Nonlife insurance premiums less service charges are defined as the sum of actual nonlife premiums earned and premium supplements less the insurance service charge payable by the policy holders. (actual premiums earned were discussed in paragraph A8.17 in the context of deriving the service charge).. Nonlife insurance premiums less service charges are shown as current transfers. They are discussed in paragraphs 13.41–13.42.

7. Nonlife insurance Claims receivable or payable (transfer income account)

A8.28 Claims incurred during the period are generally shown as current transfers. They are discussed in paragraphs 13.44–13.46 and in paragraph A8.20 in the context of deriving the service charge. In exceptional cases, such as those following a major catastrophe or disaster at a national level, they may be classified as capital transfers as discussed in paragraph 14.24. Catastrophic events include earthquakes, tsunami, floods, cyclones, hurricanes, hailstorms, bushfires, and so forth, except where these events can be considered periodic and expected within the normal course of nonlife insurance business. The criteria for when the effects of a catastrophe should be treated like this must be determined according to national circumstances, but these may involve the number of policyholders affected and the amount of the damage done. It is noted that the recording of claims incurred to catastrophic events as capital transfers is restricted to damages to non-financial assets. Claims incurred related to losses to consumer durables should be recorded as current transfers. However, from a feasibility perspective, it may be difficult to differentiate catastrophic damages to nonfinancial assets from similar damages to consumer durables. Unless this information is available, it is recommended to treat all claims arising from catastrophic events as capital transfers as the default option. (see paragraphs 24.41-42, *2025 SNA*). The transactions and positions of claims outstanding plus unearned premiums is recognized as a financial asset or liability (i.e., as part of nonlife insurance technical reserves) and is shown in the financial account and IIP respectively (see paragraphs 5.64, 7.63–7.68, and 8.47).

Box A8.1. Numerical Example of Calculations for Nonlife Insurance

1. Basic information

This example covers policies of resident insurers with nonresident policyholders; the same principles apply for nonresident insurers with resident policyholders, although the availability of data is less in practice, so that ratios may be needed for some items, as discussed in Box 11.4.

Actual premiums earned from abroad = 135

Actual premiums received from abroad = 150

Reserves relating to prepayments—beginning of period = 40

Reserves relating to prepayments—end of period = 55

Net increase in reserves relating to prepayments = 15

Investment income attributable to nonresident policyholders = 8

Claims payable abroad = 160

Claims paid to abroad = 155

Reserves relating to claims incurred—beginning of period = 10

Reserves relating to claims incurred—end of period = 15

Net increase in reserves for claims incurred but not paid = 5

Adjustment for volatility in claims payable = –40

(i.e., expected long-term level of claims would be 120, that is 160 – 40)

2. Derived items

Goods and services account:

Insurance service charges (credits)

= actual premiums earned plus premium supplements less adjusted claims incurred (i.e., adjusted claims incurred is derived as actual claims payable plus adjustment for volatility)

= 135 + 8 – 120

= 23

(Note: not taking into account the volatility would lead to a negative value of services: –17.)

Earned income account:

Investment income attributable to insurance policyholders (debits) = 8

Transfer income account:

Premiums less service charges receivable (credits)

= actual premiums earned plus premium supplements less service charges = 135 + 8 – 23 = 120

Claims payable (debits) = 160

Financial account:

Nonlife insurance technical reserves (increase in liabilities to policyholders) = 20 (= 15 + 5)

Currency and deposits (decrease in assets of resident insurers) = –5 (= 150 – 155)

IIP—Liabilities

Nonlife insurance technical reserves (prepayments and claims incurred)—beginning of period = 50 (= 40 + 10)

Nonlife insurance technical reserves (prepayments and claims incurred)—end of period = 70 (= 55 + 15)

C. Life Insurance and Annuities

Reference:

2025 SNA, Chapter 24, Insurance and Pensions.

A8.29 Life insurance is distinguished from nonlife insurance in paragraph A8.11. Life insurance involves a stream of payments by the policyholder in return for a lump sum at a given date or earlier, as in the case of death of the person insured. Annuities are the reverse, where a stream of payments is made by the insurer in return for a lump sum at the beginning of the policy. Both direct insurance and reinsurance also exist for life insurance and annuities.

A8.30 The principles for the measurement of life and nonlife insurance are similar. However, in the case of life insurance, the premiums less service charges and payments of benefits are recorded in the financial account, rather than the transfer income account. This treatment follows from the role of life insurance as paying benefits even without an insured event occurring, and therefore operating mainly as a way for policyholders to build assets; in contrast, nonlife insurance operates to redistribute costs among policyholders by transfers. Because life insurance is based on managing large values of assets, the premium supplements can be relatively large.

A8.31 The value of output of life insurance services can be expressed with the following formula:

Actual premiums earned;

+ premium supplements;

– benefits due;

– Increases (+ decreases) in life insurance entitlements.

The formula is basically the same as for nonlife insurance, except that the payments to policyholders are called benefits instead of claims, and entitlements are added to account for the accrual of future benefits. Life insurance benefits are the amounts payable under the policy in the accounting period in question. No adjustment for unexpected volatility is necessary in the case of life insurance.

A8.31-1 If adequate data are not available for the calculation of life insurance output according to this formula, an approach based on the sum of costs, similar to that described for non-life insurance, may be used (see paragraph A8.16-2). As for non-life insurance, an allowance for normal profits must be included.

A8.32 The item for entitlements in the formula for life insurance reflects the financial claims of policyholders against an institutional unit offering life insurance. They are shown as accruing to particular policyholders because they consist of e allocations to the actuarial reserves and reserves for with-profits insurance policies to build up the sums guaranteed under these policies. Changes in the life insurance entitlements include the provision made for bonuses payable in future.

A8.33 It is common with life insurance policies for amounts to be explicitly attributed by the insurance corporation to the policyholders in each year. These sums are often described as bonuses.

The sums involved are not actually paid to the policyholders but the liabilities of the insurance corporation toward the policyholders increase by this amount. This amount is shown as investment income attributed to 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.

A8.34 In the case of annuities, the same principles apply, but the calculation is different because of the opposite cash flow. The output of an insurance corporation associated with administering annuities is calculated as:

Investment income attributable to the annuitants;

– amount payable to the annuitants (or surviving beneficiaries) under the terms of the annuity;

– change in the annuity entitlements but excluding the initial payments for new annuities.

The amount of the investment income attributable to the annuitants is equal to the discount factor times the start of year reserves and is independent of actual investment income and holding gains or losses earned by the insurance corporation. The item is parallel to the concept of premium supplement in the life insurance context. For additional details, see , *2025 SNA,* Chapter 24, Insurance and Pensions.

A8.35 In the current account, in addition to services, life insurance gives rise to investment income attributable to policyholders, as discussed in paragraph 12.81, of equivalent value to premium supplements. For life insurance, a) premiums less service charges; and b) benefits are shown as increases and reductions in life insurance entitlements in the financial account. (In contrast, for nonlife insurance, a) premiums less service charges; and b) claims are shown as transfers—see paragraphs A8.27 and A8.28.)

A8.36 Life insurance and annuity entitlements are defined as a financial instrument in paragraph 5.65. They are classified as other investment in the functional classification; see paragraph

6.61. More details are provided on recording them in the IIP in paragraphs 7.63–7.64, the financial account in paragraph 8.48, and other changes in volumes in paragraph 9.24.

D. Pension Schemes

Reference:

2025 SNA, Chapter 24, Insurance and Pensions.

A8.37 Pension schemes include those operated with an autonomous fund as well as funds that are not separate units and unfunded pension schemes. Pensions may be provided by social security schemes, other social insurance schemes, and social assistance schemes. They may also include employer-independent schemes, for example similar schemes for self-employed persons, or individual insurance policies qualifying as social insurance.

A8.38 Social contributions to social security schemes are discussed in paragraphs 12.32–12.33. Social benefits under social security and social assistance schemes are dealt with in paragraph 12.40. These schemes operate through transfers and do not have financial account entries because an obligation to pay is not recognized. For further information on social security and social assistance schemes, and for employement-related schemes through social security schemes, see 2025 *SNA,* Chapter 24. The remainder of this section deals with other social insurance schemes (excluding social security schemes), in the form of defined contribution and defined benefit pension schemes.

A8.39 Pension funds are defined as an institutional subsector in paragraphs 4.89–4.90. Pension entitlements are defined as a financial instrument in paragraphs 5.66–5.67. These entitlements may be liabilities of funded pension schemes or, in certain cases, unfunded schemes. The liabilities may also arise from autonomous employer-independent pension schemes or funds if accumulated contributions are set aside for retirement income and are subject to regulation or supervision in line with or similar to employer-related pension schemes or funds.

A8.39-1 An employer may contract with a third party to administer the pension funds for the employees. If the employer retains the responsibility for any deficit in funding as well as the right to retain any excess funding, the employer is described as the pension sponsor, and the unit working under the direction of the pension sponsor is described as the pension administrator. A funding deficit or excess of the pension fund to be paid by/to the sponsor is recorded under a separate financial instrument, called "claims of pension funds on pension sponsor". If the agreement between the employer and the third party acting as an administrator is such that the employer passes the risks and responsibilities for any deficit in funding to the third party in return for the right of the third party to retain any excess, the third party becomes the pension sponsor as well as the administrator.

A8.39-2 The pension entitlements are classified as other investment in the functional classification; see paragraph 6.61. The valuation of pension entitlements in the IIP is discussed in paragraph 7.65. Financial account entries are discussed in paragraphs 8.48–8.49. Changes to pension entitlements as a result of changes in model assumptions are shown as other changes in volume, whereas changes negotiated between the parties are recorded as (capital) transfers, as discussed in paragraph 9.24. Insurance and pension services are discussed in paragraphs 11.109–11.117.

A8.40 There may be explicit or implicit service charges for pension schemes. If the charges are implicit, they are measured in a similar way to those for life insurance and annuities, namely:

  Social contributions;

+ Contribution supplements;

– social benefits payable;

– Increases (+ decreases) in pension entitlements.

A8.41 Investment income is attributable to beneficiaries of pension schemes and is repaid to the pension fund as contribution supplements, as discussed in paragraph 12.82. The investment income payable

(a) for defined contribution schemes is equal to the investment income on the accumulated assets (excluding holding gains and losses) plus any income earned by renting land or buildings owned by the fund; and

(b) for defined benefit schemes, is equal to the increase in benefits payable because the date when the entitlements become payable is closer by one year due to the unwinding of the discount factor used to calculate the present value. The amount of the increase is not affected by whether the pension scheme actually has earned sufficient income to meet its obligations.

.A8.41-1 A pension sponsor may be obliged to meet liabilities of a defined benefit scheme in case of shortfall (see paragraph A8.39-1). Imputed investment income on this shortfall is recorded as income from the pension sponsor to the pension fund, which may be negative in the case of an excess.

A8.42 Social contributions to pension schemes are discussed in paragraphs 13.32–13.37. Social benefits are current transfers receivable by households intended to provide for the needs that arise from certain events or circumstances, for example, sickness, unemployment, retirement, housing, education or family circumstances. Social benefits include pension and nonpension benefits payable under social security and other social insurance schemes (see paragraph 13.40). In the *SNA*, social contributions are viewed as both transfers and as an investment in the scheme; similarly, social benefits are viewed as both transfers and as a withdrawal of investment from the scheme. These different views require an entry for the adjustment for the change in pension entitlements, discussed in paragraphs 13.38–13.39, transfer income account.