Chapter 24: Insurance and pensions

(OLD Chapter 17: Cross-cutting and other special issues, Part 1: The treatment of insurance and Part 2: Social insurance schemes)

24.1 ~~This part of chapter 17 is~~This chapter provides an overview of insurance and pensions. Sections A to F are concerned with direct insurance and reinsurance. ~~It~~They attempt~~s~~ to bring together all the entries in the accounts connected with non-life and life insurance and explain their interconnection. ~~Part 2~~Sections G to K deal~~s~~ with pension and non-pension benefits under social insurance schemes.

A. Introduction to non-life insurance, life insurance and reinsurance

24.2 At its simplest, an insurance policy is an agreement between an insurance corporation and another institutional unit, called the policyholder. Under the agreement, the policyholder makes a payment (a premium) to the insurance corporation and, if or when a specified event occurs, the insurance corporation makes a payment (claim) to the policyholder. In this way, the policyholder protects itself against certain forms of risk; by pooling the risks the insurance corporation aims to receive more from the receipt of premiums than it has to pay out as claims. However, simply recording the actual premiums and claims paid in the sequence of economic accounts of the SNA would not reflect the links between premiums and claims. Instead, some actual transactions are partitioned and others are imputed in order to bring out the underlying economic processes actually taking place.

24.3 The most common form of insurance is called direct insurance whereby the policy is issued by an insurance corporation to another type of institutional unit but an important form of insurance is provided by one insurance corporation to another insurance corporation. This sort of insurance is called reinsurance.

24.4 Defining some of the terms peculiar to the insurance industry is a helpful preliminary to further discussion. For ~~direct~~non-life and life insurance, the term premiums is used for payment to the insurance corporation; payments by the insurance corporation are called claims in the case of non-life policies and benefits in the case of life policies. ***The actual premium is the amount payable to the direct insurer or reinsurer to secure insurance cover for a specific event over a stated time period***. Actual premiums are measured by the amounts payable after all allowances, discounts or bonuses are taken into account. Cover is frequently provided for one year at a time with the premium due to be paid at the outset though cover may be provided for shorter (or longer) periods and the premium may be payable in instalments, for example monthly.

24.5 ***The premium earned is the part of the actual premium that relates to cover provided in the accounting period.*** For example, if an annual policy with a premium of 120 units comes into force on April 1 and accounts are being prepared for a calendar year, the premium earned in the calendar year is 90. ***The unearned premium is the amount of the actual premium received that relates to the period past the accounting point.*** In the example just given, at the end of the accounting period there will be an unearned premium of 30, intended to provide cover for the first three months of the next year. ***A claim (benefit) is the amount payable to the policyholder by the direct insurer or reinsurer in respect of an event covered by the policy occurring in the period for which the policy is valid.*** Claims generally become due when the event occurs, even if the payment is made some time later. (The exception to the general rule is described in section C.) Claims that become due are described as claims incurred. In some contested cases the delay between the occurrence of the event giving rise to the claim and the settlement of the claim may be several years. ***Claims outstanding cover claims that have not been reported, have been reported but are not yet settled or have been both reported and settled but not yet paid***.

1. Direct insurance

24.6 There are two types of direct insurance, life and non-life 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***. The sum payable under the policy (benefit) may be fixed or may vary to reflect the income earned from the investment of premiums during the period for which the policy operates.

For policies with varying returns, the terms "with-profits" life insurance or endowment policy are generally used. Although the date and sum may be variable, a claim is always paid in respect of a life policy. ***Non-life insurance is an activity similar to life insurance except that it covers all other risks, accidents, sickness, fire, etc***. A policy that provides a benefit in the case of death within a given period but in no other circumstances, usually called term 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 insurance from other life insurance. In these circumstances, term insurance may have to be treated in the same way as life insurance for purely practical reasons.

24.7 What life and non-life insurance have in common is that they both involve spreading risk. Insurers receive many (relatively) small regular payments of premiums from policyholders and pay much larger sums to claimants when the contingencies covered by the policy occur. For non-life insurance, the risks are spread over the whole population that takes out the insurance policies. For example, an insurance corporation determines the premiums charged for vehicle insurance in a year by relating them to the amount of claims it expects to pay on vehicle insurance in the same year. Typically, the number of claimants is much smaller than the number of policyholders. For an individual non-life policyholder there is no relationship between the premiums paid and the claims received, even in the long run, but the insurance corporation establishes such a relationship for every class of non-life insurance on a yearly basis. For life insurance, a relationship between premiums and claims over time is important both to the policyholders and to the insurance corporation. For someone taking out a life policy, the benefits to be received are expected to be at least as great as the premiums paid up until the benefit is due and can be seen as a form of saving. The insurance corporation must combine this aspect of a single policy with the actuarial calculations about the insured population concerning life expectancy (including the risks of fatal accidents) when determining the relationship between the levels of premiums and benefits. Further, in the interval between the receipt of premiums and the payment of benefits, the insurance corporation earns income from investing the premiums received. This income also affects the levels of premiums and benefits set by the insurance corporations.

24.8 Despite the similarity of the activity of life and non-life insurance, there are significant differences between them that lead to different types of entries in the accounts of the SNA. Non-life insurance consists of redistribution in the current period between all policyholders and a few claimants. Life insurance mainly redistributes premiums paid over a period of time as benefits paid later to the same policyholder. Essentially life insurance premiums and benefits are financial transactions and not current transactions.

24.9 One way in which a regular income stream can be obtained in return for an upfront payment of a lump sum is via an annuity. Annuities are usually offered by life insurance corporations and so a discussion of the recording for annuities in the sequence of economic accounts~~SNA~~ is given at the end of this part.

~~24.9~~24.10 In some countries, one can observe hybrid insurance products that are a mixture of life and non-life insurance. These products should be allocated to one category or the other depending on which features are predominant, with the share of premiums allocated to claims for insured events (non-life insurance) versus the share of premiums allocated to payouts at maturity (life insurance) to be used to determine the allocation.

2. Reinsurance

~~24.10~~24.11 Just as an individual institutional unit protects itself against the financial consequences of loss or damage, so an insurance corporation may also protect itself against an unexpectedly large number of claims, or exceptionally heavy claims, by taking out a reinsurance policy with another insurance corporation. All insurance corporations may take out some form of reinsurance but there tend to be a few large corporations that specialize in issuing reinsurance policies. Because these corporations are concentrated in a few financial centres, many of the flows associated with reinsurance involve transactions with the rest of the world. It is common for reinsurers to take out reinsurance policies with other insurance corporations to spread their risks further. This sort of reinsurance is called retrocession.

~~24.11~~24.12 Reinsurance policies are most common for non-life policies but may also apply to life insurance policies. There are two types of reinsurance, proportionate reinsurance and excess of loss reinsurance. Under a proportionate reinsurance contract, the reinsurer accepts an agreed proportion of the risks; this proportion of the premiums is "ceded" to the reinsurer who then meets the same proportion of the claims. In this case, any reinsurance commission paid by the reinsurer to the policyholder (either a direct insurer or another reinsurer) is treated as a reduction in actual reinsurance premiums payable. In excess of loss reinsurance, the reinsurer undertakes to pay all losses over a given threshold. If there are no or few claims above the threshold, the reinsurer may pass a share of his profits to the direct insurer. By convention, profit-sharing is treated as a current transfer from the reinsurer to the direct insurer in a way similar to the payment of claims.

3. The units involved

~~24.12~~24.13 The institutional units involved in direct insurance and reinsurance are pre-eminently insurance corporations. In principle it is possible for another type of enterprise to carry out insurance as a non-principal activity, but usually the legal regulations surrounding the conduct of insurance mean that a separate set of accounts covering all aspects of the insurance activity must be kept; thus in the sequence of economic accounts~~SNA~~ a separate institutional unit, classified to the insurance corporations and pension funds subsector, is identifiable. Sometimes government may conduct other insurance activities, but again it is likely that a separate unit can be identified. Having noted that exceptionally other sectors may be involved, in what follows it is assumed that all insurance is carried out by insurance corporations, either resident or non-resident.

B. Output of direct insurance and reinsurance

~~24.13~~24.14 Under a non-life insurance policy, the insurance company accepts a premium from a client and holds it until a claim is made or the period of the insurance expires. In the meantime, the insurance company invests the premium and the investment income is an extra source of funds from which to meet any claim due. The investment income represents income foregone by the client and so is treated as an implicit supplement to the actual premium. The insurance company sets the level of the actual premiums to be such that the sum of the actual premiums plus the investment income earned on them less the expected claim will leave a margin that the insurance company can retain; this margin represents the output of the insurance company. Within the SNA, the output of the insurance industry is determined in a manner intended to mimic the premium setting policies of the insurance corporations. To that end, four separate items need to be defined. These are actual premiums earned, premium supplements, claims (or benefits) incurred and reserves. Each of these is discussed in turn before discussing the measurement of output for direct non-life insurance, direct life insurance and reinsurance respectively.

1. Actual ~~P~~premiums earned

~~24.14~~24.15 As explained in section A, an important distinction is made between actual premiums, which are payable for cover in a given period and actual premiums earned that are the proportion of actual premiums, relating to the accounting period in question rather than to the period covered by the insurance policy.

2. Premium supplements

~~24.15~~24.16 For life insurance in particular, but also to a lesser extent for non-life insurance, the total amount of claims payable in a given period often exceeds the premiums receivable. The insurance corporation can accept this because the contingencies covered by the policies do not occur, even for the whole population covered, at the same time as the premiums are paid. Premiums are usually paid regularly, often at the start of an insurance period, whereas claims fall due later, in the case of life insurance often many years later. In the time between the premium being paid and the claim being payable, the sum involved is at the disposal of the insurance corporation to invest and earn income from it. These amounts are called reserves. The income earned on the reserves allows the insurance corporations to charge lower premiums than would be the case otherwise. An adequate measure of the service provided must take account of the size of this income as well as the relative size of premiums and claims.

~~24.16~~24.17 The income concerned comes from the investment of the reserves of the insurance corporations, which represent liabilities towards the policyholders. For non-life insurance, even though a premium may be payable at the start of a period of cover, the premiums are only earned on a continuous basis as the period passes. At any point before the end of the cover, the insurance corporation holds an amount due to the policyholder relating to services and possible claims to be provided in the future. This is a form of credit extended by the policyholder to the insurance corporation described as actual unearned premiums. Similarly, although claims become due for payment by the insurance corporation when the contingency specified in the policy eventuates, they may not be actually payable until some time later, often because of negotiation about the amounts due. This is another similar form of credit, described as reserves against claims outstanding.

~~24.17~~24.18 Similar reserves exist for life insurance but in addition there are two other elements of insurance reserves, actuarial reserves for life insurance and reserves for with-profit insurance. They represent amounts set aside for payments of benefits in future. Usually the reserves are invested in financial assets and the income is in the form of investment income (interest and dividends). Sometimes, however, they may be used to generate net operating surplus either in a separate establishment or as a secondary activity. The most common example is from real estate.

~~24.18~~24.19 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 towards the policyholders increase by this amount. This amount is shown as investment income attributed to the policyholders. 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. ~~In addition, all the income from the investment of non-life reserves and any excess of income from the investment of life reserves over any amounts explicitly attributed to the policyholders, are shown as investment income attributed to policyholders, regardless of the source of the income.~~

~~24.19~~24.20 All investment income attributed to policyholders, whether explicitly by the insurance corporation or implicitly within the SNA, is shown as payable to the policyholders in the ~~distribution of primary~~allocation of earned income account. For non-life insurance, the same amount is then repaid to the insurance corporation as premium supplements in the ~~secondary distribution of~~ income transfers other than social transfers in kind account. For life insurance, premiums and premium supplements as well as benefits are shown in the financial account.

~~24.20~~24.21 For direct non-life insurance, the investment income attributed to the policyholders should, in principle, be made according to the proportion of reserves attributed to the different classes of insurance and policyholders. In practice, the usual method is to distribute the investment income in proportion to the actual premiums payable. For direct life insurance, all policyholders are individuals and so the investment income is attributed to households (possibly including some non-resident households).

3. Claims and benefits

Non-life insurance claims

~~24.21~~24.22 The level of claims made on non-life insurance policies varies from year to year and there may be exceptional events that cause a particularly high level of claims. However, the concept of insurance service is the service of providing cover against risk; production occurs continuously and not simply when the risk occurs. As such, its measurement should not be affected by the volatility of the occurrence of the risk. Neither the volume nor the price of insurance services is directly affected by the volatility of claims. The insurance company sets the level of premiums on the basis of its own estimation of the likelihood of claims. For this reason, the formula used in the integrated framework of national accounts~~SNA~~ for the calculation of output should not use ~~not~~ actual claims but a figure based on past experience and future expectations. The term “adjusted claims” is used to describe the level of claims used in determining the value of output.

~~24.22~~24.23 The figure for adjusted claims may be derived statistically in an expectations approach based on previous experience of the level of claims. In considering the past history of claims payable, however, allowance must be made for the share of these claims that are met under the terms of the direct insurer’s reinsurance policy (if any). For example, when the direct insurer has an excess of loss reinsurance, he sets the level of premiums to cover losses up to the maximum loss covered by his reinsurance policy plus the reinsurance premium he must pay. Under a proportionate reinsurance policy, he sets his premiums to cover the proportion of claims he has to pay plus the reinsurance premium.

~~24.23~~24.24 Alternatively, an approach using information from the accounts of the insurance corporation may be adopted. These may include an equalization provision, which is an adjustment to reflect the variations in claims from one year to another. Whichever method is used, therefore, the adjusted claim figure approximates the expected level of claims.

Life insurance benefits

~~24.24~~24.25 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.

4. Reserves

~~24.25~~24.26 The concept of reserves used in the formula for deriving the value of insurance output corresponds to the definition of non-life insurance technical reserves and life insurance and annuity~~ies~~ entitlements as defined in chapter ~~13~~14. These cover provisions for unearned premiums, for unexpired risks (i.e., the amounts set aside in addition to the unearned premiums in respect of risks to be borne by the insurer after the end of the financial year in order to provide for all claims and expenses in excess of the related unearned premiums), claims, or benefits. outstanding and reserves for bonuses and rebates, the latter applying in the main to life insurance only. The coverage of unearned premiums and claims outstanding is given in section A.

5. Defining insurance output

Non-life insurance

~~24.26~~24.27 The output of the insurance corporation represents the service provided to the policyholders. The output of direct non-life insurance is based on the principle of adding premiums and premium supplements and deducting adjusted claims incurred.

~~24.27~~24.28 If an expectations approach is being used, the formula to calculate output takes the following form:

Actual premiums earned;

plus premium supplements;

minus adjusted claims incurred;

where adjusted claims are estimated from past experience. In such a case, conceptually premium supplements should also be estimated on the basis of past experience. However, since premium supplements, i.e., the investment income, excluding holding gains and losses, derived from the investment of the non-life insurance technical reserves, are less volatile than claims, in practice no such adjustment may be necessary. If a statistical basis is to be used for estimating output, it is advisable to use information broken down by “line of business”, that is for motor insurance, buildings insurance, etc. separately.

~~24.28~~24.29 Alternatively, an accounting approach may be used whereby output is calculated as:

Actual premiums earned;

plus premium supplements;

minus adjusted claims incurred;

where adjusted claims are determined by using claims due plus the changes in equalization provisions and, if necessary, changes to own funds.

~~24.29~~24.30 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 intermediate costs, labour and capital costs) 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.

Life insurance

~~24.30~~24.31 The output of direct life insurance is calculated separately as:

Actual premiums earned;

plus premium supplements;

minus benefits due;

minus increases (plus decreases) in life insurance and annuity entitlements~~actuarial reserves and reserves for with-profits insurance~~.

~~24.31~~24.32 If adequate data are not available for the calculation of life insurance according to this formula, an approach based on the sum of costs, similar to that described for non-life insurance, may be used. As for non-life insurance, an allowance for normal profits must be included.

Reinsurance

~~24.32~~24.33 The formula to calculate the output of reinsurance services is exactly analogous to those for direct insurance. However, because the primary motivation of reinsurance is to limit the direct insurer's exposure to risk, a reinsurer deals with exceptionally large claims as a matter of normal business. For this reason, and because the market for reinsurance is concentrated in relatively few large firms worldwide, it is less likely that the reinsurer will experience an unexpectedly large loss than a direct insurer does, especially in the case of excess of loss reinsurance.

~~24.33~~24.34 The output of reinsurance is measured in a way similar to that for direct non-life 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:

~~Total a~~Actual premiums earned less commissions payable;

plus premium supplements;

minus both adjusted claims incurred and profit sharing.

C. All the transactions associated with non-life insurance

~~24.34~~24.35 This section describes the full set of entries needed in the accounts to record all the implications of a non-life insurance policy. Policies may be taken out by corporations, government units, NPISHs, households and units in the rest of the world. However, when a policy taken out by a member of a household qualifies as social insurance, the entries required are as described in ~~part 2~~sections G to K of this chapter on social insurance and not as described here.

1. ~~Net p~~Premiums less service charges and consumption of insurance services

~~24.35~~24.36 The actual premiums earned~~payable~~ and the premium supplements are shown in the sequence of economic accounts~~SNA~~ divided between two types of transactions. The first is the value of the output of insurance, which is shown as either consumption or export of insurance services. The second is ~~net~~ premiums earned less service charges by the insurance corporations. ***~~Net p~~Premiums less service charges are defined as actual premiums earned plus premium supplements less the insurance service charge payable by the policyholders***. Because of the way in which the value of the service output is defined, ~~net premiums for~~ non-life insurance premiums less service charges are equal in total to adjusted, and not actual, claims. Any variation between adjusted and actual claims represents a transfer between the policyholders and the insurance corporation. Over time, a transfer in one direction is offset by one in the other.

~~24.36~~24.37 Insurance services are consumed by those sectors (and the rest of the world) that pay premiums. Estimates of the value of consumption by sector are usually made by allocating the total value of the service in proportion to the actual premiums ~~payable~~earned. Estimates of ~~net~~ premiums less service charges are then made by deducting the consumption of services from the total value of actual premiums ~~payable~~earned plus the value of the premium supplements. (Because premium supplements are also allocated in proportion to actual premiums earned, the ~~net~~ premiums less service charges are also in effect allocated in the same proportions as the actual premiums earned.)

2. Recording non-life insurance claims

~~24.37~~24.38 The time of recording claims incurred is generally in the period in which the event to which the claim relates took place. This principle is applied even when, in the case of disputed claims, the settlement may take place years after the event concerned. An exception is made in cases where the possibility of making a claim is recognized only long after the event has happened. For example, an important series of claims were recognized only when exposure to asbestos was established as a cause of serious illness and was judged to give rise to claims under an insurance policy valid at the time of the exposure. In such cases the claim is recorded at the time that the insurance company accepts the liability. This may not be the same time as when the size of the claim is agreed on or when the claim is paid.

~~24.38~~24.39 Because the formula for output uses adjusted claims and not actual claims, only when the actual claims happen to be the same value as expected claims will ~~net~~ premiums less service charges and claims be equal in a given period. They should however be approximately equal over a period of years excluding a year in which a disaster is recorded.

~~24.39~~24.40 Claims are normally recorded as current transfers payable by the insurance corporation to the policyholder. In some circumstances, an insurance corporation may set the level of premiums so low that they are not expected to cover costs and the predicted level of claims. This may happen when the surplus from one line of business, for example home insurance, is being used to cross-subsidise another line of business, for example, vehicle insurance.

24.41 There is one case where claims may be recorded as capital transfers rather than current transfers and that is in the wake of a major catastrophe. 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. The rationale for recording the claims as capital transfers in this case comes from the fact that many of the claims will relate to destruction or serious damage to non-financial assets such as dwellings, buildings and structures, inventories and valuables. Damage corresponding to a normal level of claims is covered by, for example, ~~consumption of fixed capital~~depreciation or losses from inventories. These losses are thus captured as current expenditure elsewhere in the system. However, major losses in the wake of a catastrophe are recorded as the result of unforeseen events in the other changes in assets accounts and omitted from current expenditures. The recommendation is thus to record claims as current or capital transfers analogously.

~~24.40~~24.42 It is noted the recording of claims due to catastrophic events as capital transfers is restricted to damages to non-financial assets. Claims due to losses to consumer durables should be recorded as income transfers. The increase in disposable income would thus cancel out final consumption expenditure on replacing the damaged consumer durables, leaving saving unaffected. However, from a feasibility perspective, it may be difficult to differentiate catastrophic damages to non-financial assets, including inventories from similar damages to consumer durables. This would require further details on claims arising from insurance policies of households as consumers, to exclude those related to non-life insurance of dwellings and unincorporated enterprises. Unless this information is available, it is recommended to treat all claims arising from catastrophic events as capital transfers as the default option.

24.43 The recording non-life insurance claims due to catastrophic events as capital transfers may also have an impact on the recording of reinsurance. However, what constitutes an exceptional event for insurers at the national level may be business-as-usual for a large worldwide operating reinsurance company. As a consequence, one may end up with a national insurer recording claims due to a catastrophic event as capital transfers, while the related claims received from the reinsurer are recorded as current transfers. Disposable income and saving of the national insurer would thus be positively affected by a catastrophic event, which is very counterintuitive. To avoid this, it is recommended to resolve them on a case by case basis. A strict delineation of catastrophic events would reduce the instances where this might occur.

~~24.41~~24.44 It is recommended that following a catastrophe, the total value of the claims related to the catastrophe should be recorded as a capital transfer from the insurance corporation to the policyholders. Information on the level of claims to be met under insurance policies should be obtained from the insurance industry. If the insurance industry cannot provide this information, one approach to estimating the level of the catastrophe-related claims is to take the difference between the adjusted claims and the actual claims in the period of the catastrophe.

24.45 A consequence of recording such claims as capital transfers means that the disposable income of households and other policyholders does not increase counter-intuitively as would be the case if the claims were recorded, as normal, as current transfers. The net worth of the policyholders will show the effects of both the destruction of assets (as an other volume change) and an increase (initially) in financial assets from the capital transfers. This recording is consistent with the recording of assistance by government of an NPISH to cover some or all of the costs of repairing or replacing the assets of those affected by the catastrophe who are not covered by an insurance policy.

3. Insurance services provided to and from the rest of the world

~~24.42~~24.46 Resident insurance corporations frequently provide insurance cover to households and enterprises in the rest of the world, and resident households and enterprises may purchase cover from insurance corporations in the rest of the world. The investment income attributed by resident insurance corporations to policyholders includes an allocation to policyholders in the rest of the world. These non-resident policyholders then also pay premium supplements to the resident insurance corporation. This information should be available for resident insurers and should be included in the rest of the world account.

~~24.43~~24.47 Similar considerations also apply to the treatment of resident enterprises and households taking out policies with non-resident insurers. They receive imputed investment income from abroad and pay premiums and supplements to abroad. Estimation of the size of these flows is more difficult, especially when there is no resident insurer of the same type against which to make comparisons. However, very often the country providing the service will be known and it may be possible to use counterpart data to make estimates for the national economy. The level of transactions by residents should be known and the ratio of premium supplements to actual premiums earned in the economy providing the services could be used to estimate the investment income receivable and premium supplements payable.

4. The accounting entries

~~24.44~~24.48 Altogether six pairs of transactions need to be recorded in respect of non-life insurance that is not part of social insurance; two pairs relating to the measurement of the production and consumption of the insurance service, three pairs relating to redistribution and one in the financial account. Under exceptional circumstances, a seventh transaction relating to redistribution may be recorded in the capital account. The value of the output of the activity, the investment income to be attributed to the policyholders and the value of the service charge are calculated specifically for other non-life insurance in the manner described above.

~~24.45~~24.49 The production and consumption transactions are as follows:

a. Since all such activity by resident institutional units is undertaken by insurance corporations, the output is recorded in the production account of insurance corporations;

b. The service may be consumed by any of the sectors of the economy or by the rest of the world; the value of the service is payable to insurance corporations. Payments by non-financial corporations, financial corporations, general government or ~~non-profit institutions~~NPISHs constitute intermediate consumption, recorded in their production account. Insurance clearly associated with the productive activity of a household unincorporated enterprise is also recorded as intermediate consumption in the production account of households. Other insurance payments by households are part of final consumption expenditure, recorded in the use of income account. Payments by the rest of the world are recorded as exports in the external account of goods and services.

~~24.46~~24.50 The redistributive transactions cover investment income attributed to policyholders in respect of non-life insurance, ~~net~~ non-life insurance premiums less service charges, and insurance claims:

a. Investment income attributed to policyholders in respect of non-life insurance is recorded as payable by insurance corporations. It is recorded as receivable by all sectors and the rest of the world. Both payables and receivables are recorded in the allocation of ~~primary~~earned income account.

b. N~~et n~~on-life insurance premiums less service charges are calculated as actual premiums earned plus premium supplements (equal to the investment income attributed to policyholders) less the value of the services consumed. These ~~net~~ premiums less service charges are payable by all sectors of the economy or the rest of the world and receivable by insurance corporations.

c. Insurance claims incurred are payable by insurance corporations and receivable by all sectors of the economy and the rest of the world. Both ~~net~~ premiums less service charges and claims are recorded in the ~~secondary distribution of~~ income transfers other than social transfers in kind account.

d. If some claims are to be treated as capital rather than current transfers, these are recorded in the capital account as payable to policyholders by insurance corporations.

~~24.47~~24.51 N~~et n~~on-life insurance premiums less serviced charges should be recorded on the basis of the amounts due to obtain cover in the period of account, not the amounts actually paid in the period. Insurance claims should be recorded as payable on the date of the event concerned occurred, except in the type of case described above when the claim is recorded ~~when~~at the time the insurance company accepts that a liability exists. An entry in the financial account records any difference between actual premiums payable and actual premiums earned and claims due and claims payable.

~~24.48~~24.52 By convention, unearned premiums and reserves against outstanding claims are shown as a change in liabilities of insurance corporation (with a negative sign if necessary) and a change in assets of all sectors and the rest of the world.

~~24.49~~24.53 An example of these flows is shown in table ~~17~~24.1.

Table ~~17~~24.1: Accounts for non-life insurance - ~~uses~~expenditures

Table ~~17~~24.1 (cont): Accounts for non-life insurance - ~~resources~~revenues

D. All the transactions associated with life insurance

~~24.50~~24.54 This section describes the way in which recording of the entries for life insurance differs from non-life insurance. As for non-life insurance, but more significantly in practice, a life policy that qualifies as social insurance is recorded not as described here but as described in ~~part 2~~sections G to K of ~~the~~this chapter. The major difference between a normal life insurance policy and one qualifying as social insurance is that under the former, the premiums and benefits related to~~from~~ the policy are treated as mainly changes in~~rundowns of~~ wealth, recorded in the financial account. For a policy qualifying as social insurance, the contributions and benefits (pensions) are recorded as income transfers in the ~~secondary distribution of~~ income transfers other than social transfers in kind account. The reason for the different treatment is that an individual policy other than social insurance is entered into entirely on the initiative of the policyholder. Policies that qualify as social insurance reflect the intervention of a third party, usually the government or the employer, to encourage or oblige the policyholder to make provision for income in retirement. Distinguishing all payments made under social insurance schemes, including those coming from qualifying individual policies, shows how far social policies to ensure income in retirement are successful.

~~24.51~~24.55 The holder of a life insurance policy is always an individual. (If a company takes out an insurance policy on the life of an employee, this should be treated as term insurance and therefore as non-life insurance in the SNA.) Life insurance transactions therefore take place only between insurance corporations and households, resident and non-resident. The production of the insurance services is matched by the value of the services consumed by households as part of final consumption expenditure and exports. The investment income attributed to insurance policyholders is treated as premium supplements. However, premiums and claims are not shown separately in the case of life insurance and are not treated as current transfers. Rather they constitute components of a net transaction recorded in the financial account, the financial asset involved being life insurance and annuit~~ies~~y entitlements.

~~24.52~~24.56 Four pairs of transactions are recorded in the accounts; two pairs relate to production and consumption of the insurance service, one pair shows the attribution of investment income to the property holders and one pair shows the change in life insurance and annuit~~ies~~y entitlements:

a. The output of the life insurance activity is recorded in the production account for the insurance corporations.

b. The value of the services consumed is recorded as final consumption expenditure payable by households in the use of disposable income account or as payable by the rest of the world (exports to non-resident households). Households may also make payments to non-resident insurers. Such payments are treated as imports of insurance services.

c. Investment income attributed to insurance policyholders in respect of life insurance is recorded in the allocation of ~~primary~~earned income account. Bonuses declared in connection with life policies are treated as being distributed to policyholders even if they exceed the investment income earned by the institution declaring the bonus. The investment income is recorded as payable by insurance corporations and receivable by resident households or non-resident households in the rest of the world.

d. In the financial account, the item change in life insurance and annuit~~ies~~y entitlements is shown as a change in assets of households and the rest of the world and a change in liabilities of insurance corporations. It is equal to actual premiums plus premium supplements (equal to the investment income attributed to policyholders; see paragraphs 24.16 to 24.21) less the value of the services consumed and less benefits due.

~~24.53~~24.57 An example of these flows is shown in table ~~17~~24.2.

Table ~~17~~24.2: Accounts for life insurance - ~~uses~~expenditures

Table ~~17~~24.2 (cont): Accounts for life insurance - ~~resources~~revenues

~~24.54 1. Annuities~~

~~24.55~~

24.58 Some life insurance policies yield a lump sum at a given date rather than a stream of payments. The lump sum may be used to purchase an annuity that itself converts a lump sum into a stream of payments. The recording of annuities is described in section F.

E. All transactions associated with reinsurance

~~24.56~~24.59 Before discussing how the various elements contributing to the measurement of output of reinsurance are recorded in the SNA, it is necessary to describe how reinsurance is measured and recorded.

~~24.57~~24.60 The transactions between the direct insurer and the policyholder are measured as described in the previous section without any reference to the transactions between the direct insurer and the reinsurer. 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.

~~24.58~~24.61 The direct policyholder does not know, or need to know, whether the direct insurer involves a reinsurer to protect it against loss on the policy. The direct insurer receives actual premiums from its policyholders. Some of these are ceded to a reinsurer. The premiums are shown as being first payable to the direct insurer and then a lesser premium is payable to the reinsurer. This non-consolidation is sometimes referred to as gross recording on the part of the direct insurer. The alternative (net recording) would be to show part of the direct policyholders' premiums being paid to the direct insurer and part to the reinsurer but this option is not recommended either in commercial accounting or in the SNA.

~~24.59~~24.62 The actual premium payable by the direct insurer to the reinsurer is 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. Thus a direct insurer pays investment income to its policyholders based on the whole of the actual premiums earned (or by approximation payable) but also receives investment income from the reinsurer corresponding to the amount of the premiums it has ceded to the reinsurer. The investment income receivable by the direct insurer from the reinsurer may be used to offset some of the investment income payable by the direct insurer to its policyholders but is not recorded explicitly as such.

~~24.60~~24.63 As with direct insurance, in exceptional cases, for example following a catastrophic natural disaster, some part of reinsurance claims may be recorded as capital transfers rather than as current transfers; see also paragraph 24.42.

~~24.61~~24.64 The whole of the output of the reinsurer represents intermediate consumption of the direct insurer holding the reinsurance policy. As noted above, many reinsurance policies are between insurance corporations resident in different economies. Thus the value of the output in these cases represents imports by the insurance corporation taking out the reinsurance policy and exports by the reinsurance corporation.

~~24.62~~24.65 The recording of flows associated with reinsurance resembles the recording for non-life insurance except that the policyholder of a reinsurance policy is always another insurance corporation.

~~24.63~~24.66 The production and consumption transactions are as follows:

a. Since all such activity by resident institutional units is undertaken by insurance corporations, the output is recorded in the production account of insurance corporations. Reinsurance services may be, and often are, provided by non-resident units and thus are recorded in imports.

b. The service may only be consumed by another insurance corporation, though this may be a non-resident unit, and is intermediate consumption of that unit unless the policyholder is non-resident in which case it is recorded as exports of the reinsurer.

~~24.64~~24.67 The redistributive transactions cover investment income attributed to policyholders in respect of reinsurance, ~~net~~ reinsurance premiums less service charges and reinsurance claims:

a. Investment income receivable by reinsurance policyholders is payable by insurance corporations, resident or non-resident, and receivable by similar institutions either resident or non-resident.

b. ~~Net r~~Reinsurance premiums less service charges are calculated as actual premiums earned plus premium supplements (equal to the investment income attributed to policyholders) less the value of the services consumed. These ~~net~~ premiums less service charges are payable by insurance corporations and receivable by [other] insurance corporations. (Either of the units due to make the payment or to receive it may be non-resident.)

c. Reinsurance claims are payable by insurance corporations and receivable by [other] insurance corporations, either resident or non-resident. Both ~~net~~ premiums less service charges and claims are recorded in the ~~secondary distribution of~~ income transfers other than social transfers in kind account.

d. Commissions payable by reinsurers to the insurance corporation as the reinsurance policyholder are treated as reductions in the premiums payable to the reinsurers.

e. Profit sharing payable by the reinsurer to the direct insurer is recorded as a current transfer. (Although they are recorded differently, both commissions payable and profit sharing serve to reduce the output of the reinsurer.)

f. If some direct insurance claims are treated as capital and not current transfers, any reinsurance claims relating to the same event should also be treated as capital transfers.

~~24.65~~24.68 An entry in the financial account records any difference between actual premiums payable and actual premiums earned and claims incurred and claims payable.

F. Annuities

~~24.66~~24.69 The simplest case of a life insurance policy is one where a stream of payments is made by the policyholder to the insurance corporation over time in return for a single payment received as a claim at some point in the future. With the simplest form of annuity, the equivalent to the policyholder, called the annuitant, pays a single lump sum to the insurance corporation and in return receives a stream of payments either for a nominated period or for the rest of the annuitant's life (or possibly for the rest of the life of both the annuitant and a nominated other person).

~~24.67~~24.70 Annuities are organized by insurance corporations and are a means of risk management. The annuitant avoids risk by agreeing to accept a known payment stream (known either in absolute terms or subject to a formula, such as being index-linked) in return for parting with a considerable sum. The insurance corporation takes the risk of making more from investing the sum than is due to the annuitant. The rates of annuities are determined taking life expectancy into account. The insurance corporation has to pay more than originally planned to long-lived annuitants who may receive more than their original payment and the income earned on it. Those who die early receive less, possibly considerably less, and the insurance corporation receives more than expected.

1. How an annuity works

~~24.68~~24.71 It is simplest to explain the working of an annuity by means of an example. Suppose an insurance corporation offers an individual payments of 600 for life in return for a lump sum payment of 10 000 and further suppose that the insurance corporation expects the individual concerned to live for 25 years and that the discount rate being used is five per cent. As shown in figure ~~17~~24.1, the net present value of 600 for 25 years is only 8 700. Thus the remaining 1 300 represents the net present value of the service charges of about 90 per year the insurance corporation expects to make. Thus, whether the annuitant recognizes it or not, the insurance corporation offer of 600 a year is a ~~net~~ figure adjusted for service charges. The annuitant will actually be entitled to 690 a year but 90 is retained by the insurance corporation as a fee for its services.

Figure ~~17~~24.1: Example of an annuity

~~24.69~~24.72 Each year there is investment income payable to the annuitant equal to the unwinding of the annuity entitlements, equal to the discount factor of five percent on the remaining amount held by the insurance corporation. In the first year, the proportion of the investment income relating to the prepaid service charges~~premium~~ (1 300) is 65 and the remaining 25 of the service charge is met from a drawdown of the value of 1 300 to 1 275. The remaining investment income (435) adds to the value of the net annuity entitlement~~reserve~~ of 8 700. At the end of the first year, therefore, the annuity entitlement~~reserve~~ is 8 535; the original sum of 8 700 plus the ~~interest~~investment income of 435 and less the payment of 600. The drawdown on the start of year amount of the net annuity entitlement~~reserve~~ is thus 165 and the drawdown on the prepaid service charges~~premiums~~ is 25.

~~24.70~~24.73 This process continues year by year. As time progresses, the drawdown of the remaining reserves is an increasingly larger part of the payments due and the investment income payable a smaller part. In principle, every year the insurance corporation can review its assumptions about the remaining life expectancy of the annuitant and recalculate the amount available as a service charge. (In practice this is likely to be done at intervals and by cohort of annuitants.)

~~24.71~~24.74 The detailed numerical example is intended to demonstrate the way an annuity functions but in fact it is not necessary to undertake all these calculations to determine the output of the insurance corporation. The value of output can be determined more simply as the total investment income due to the annuitant (500) less the amount payable to him (600) less the change in the value of the reserves (a reduction of 190), or 90 (500-600-(-190)). This result can be seen to be parallel to the measurement of life insurance except that there is no actual premium element.

2. The output associated with an annuity

~~24.72~~24.75 The output of an insurance corporation associated with administering annuities is calculated as:

the investment income attributable to the annuitants;

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

minus the change in the annuity entitlements~~reserves~~ 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.

3. All the transactions associated with annuities

~~24.73~~24.76 There are three sets of transactions recorded for an existing annuity and further entries required for the initiation and termination of an annuity.

a. A service charge associated with the annuity is payable every year. It is recorded as output of the insurance corporation and final consumption expenditure of the household to which the beneficiary belongs. This might be a non-resident household.

b. Investment income equal to the discount factor times the level of annuity entitlements~~reserves~~ at the beginning of the period is recorded in the ~~primary distribution of~~earned income account as payable by the insurance corporation and receivable by the household.

c. The change in the value of the reserves for annuities is recorded in the financial account as payable by the household to the insurance corporation.

~~24.74~~24.77 When an annuity is initiated, there is a transfer of funds from the household to the insurance corporation. In many cases, however, this may simply be a "rollover" from a lump sum payable by that or another insurance corporation from the maturing of a normal life insurance policy immediately into an annuity. In such a case there is no need to record the payment of the lump sum and the acquisition of the annuity; there will simply be a change from life insurance reserves to annuity entitlements~~reserves~~ in the insurance corporation~~ and pension fund~~ subsector. If an annuity is purchased independently of the maturing of a life insurance policy, this is recorded as a pair of financial transactions between the household and the insurance corporation. The household makes a payment to the insurance corporation and receives in return an asset arising from the terms of the annuity. The insurance corporation receives a financial asset from the household and incurs a liability towards it.

~~24.75~~24.78 Annuities are normally terminated by death, at which point any remaining reserves for that annuitant are transferred to the insurance corporation. However, assuming the insurance corporation has predicted life expectancy accurately, for the group of annuitants as a whole, the average funds remaining at death will be zero. If life expectancies change, revisions to the reserves must be made. For annuities in operation, an extension of life expectancies will reduce the amount available to the insurance corporation as a service charge, possibly making this negative. In such a case, the insurance corporation will have to draw on its own funds and hope to build these up again in future by associating higher service charges with new annuities.

G. Introduction to social insurance

~~24.76~~24.79 Social insurance schemes are an important way in which individuals who participate in the scheme are paid benefits, described as social benefits, when certain conditions exist that would adversely affect their welfare. Some social benefits, however, are payable independently of participation in a social insurance scheme. It is the conditions under which the benefits are payable that identify a social insurance scheme, not the nature of the benefits in themselves.

~~24.77~~24.80 A social insurance scheme is a form of contract and always involves at least one unit other than the beneficiary. The other unit may be an employer, general government or a financial institution (often an insurance corporation) or sometimes a non-profit institution serving households (NPISH).

~~24.78~~24.81 The objective of this part of the chapter is to describe how the various sorts of social benefits provided under social insurance schemes are recorded in the SNA. In order to do this, it is necessary to clarify the identifying characteristics of a social insurance scheme, the nature of the other unit involved, the types of benefits payable and the ways in which these are funded.

H. Basic definitions

1. Social benefits

~~24.79~~24.82 Social benefits become payable when certain events occur, or certain conditions exist, that may adversely affect the welfare of the households concerned either by imposing additional demands on their resources or reducing their incomes. Social benefits may be provided in cash or in kind. There are a number of circumstances in which social benefits may be payable:

a. The beneficiaries, or their dependants, require medical, dental or other treatment, or hospital, convalescent or long-term care, as a result of sickness, injuries, maternity, chronic invalidity, old age, etc. The social benefits may be provided in kind in the form of treatments or care provided free or at prices that are not economically significant, or by reimbursing expenditures made by households. Social benefits in cash may also be payable to beneficiaries needing health care.

b. The beneficiaries have to support dependants of various kinds: spouses, children, elderly relatives, invalids, etc. The social benefits are usually paid in cash in the form of regular dependants' or family allowances.

c. The beneficiaries suffer a reduction in income as a result of not being able to work, or to work full-time. The social benefits are usually paid in cash regularly for the duration of the condition. In some instances a lump sum may be provided additionally or instead of the regular payment. People may be prevented from working because of:

- voluntary or compulsory retirement;
- involuntary unemployment, including temporary lay-offs and short-time working;
- sickness, accidental injury, the birth of a child, etc., that prevents a person from working, or working full time.

d. The beneficiaries receive payments to compensate for suffering a reduction in income because of the death of the main income earner.

e. The beneficiaries are provided with housing either free or at prices that are not economically significant or by reimbursing expenditure made by households. These are social benefits in kind.

f. The beneficiaries are provided with allowances to cover education expenses incurred on behalf of themselves or their dependants. Occasionally education services may be provided in kind.

~~24.80~~24.83 The above are typical circumstances in which social benefits are payable. However, the list is illustrative rather than exhaustive. It is possible, for example, that under some social insurance schemes other benefits may be payable. Conversely, by no means all schemes provide benefits in all the circumstances listed above. In practice, the scope of social insurance schemes is liable to vary significantly from country to country, or from scheme to scheme within the same country.

2. Social benefits provided by general government

~~24.81~~24.84 Many social benefits are provided by general government. They may appear in the accounts as payments under social security, social assistance or social transfers in kind. Government may also be involved, as an employer, in other social insurance schemes.

~~24.82~~24.85 Social security is the name given to the social insurance scheme operated by general government. As will be explained below, in order to receive social security benefits, an individual must participate in a social security scheme.

~~24.83~~24.86 Social assistance is not a scheme and thus does not require participation. However, social assistance is frequently restricted to individuals with low incomes, disabilities or other particular characteristics. In some countries, though, a universal pension may be paid without any need for participation in which case it is part of social assistance also. There is a section discussing the difference between social insurance and social assistance at greater length in chapter ~~8~~9.

~~24.84~~24.87 The definition of social benefits includes the possible provision of health and education services. Typically general government makes such services available to all members of the community without requiring participation in a scheme or qualifying requirements. These services are treated as social transfers in kind and not as part of social security or social assistance. Social transfers in kind are also discussed in chapter ~~8~~9.

~~24.85~~24.88 In addition to health and education services provided by general government, such services may also be provided to individuals by NPISHs. These also are treated as social transfers in kind and not as part of social insurance schemes.

3. Social benefits provided by other institutional units

~~24.86~~24.89 Social benefits may also be provided by employers to the employees and their dependents or may be provided by other units such as a trades union. Collective arrangements that provide social benefits may also be set up for selected groups of self-employed persons. All social benefits provided by units other than general government are made under a social insurance scheme.

4. Social insurance schemes

~~24.87~~24.90 A social insurance scheme is a form of contractual insurance scheme where the policyholder is obliged, or encouraged, to insure against certain contingencies by the intervention of a third party. For example, government may oblige ~~all~~ employees or self-employed persons, which may include persons temporarily without employment, to participate in a social security scheme; employers may make it a condition of employment that employees participate in an insurance scheme specified by the employer; an employer may encourage employees to join a scheme by making contributions on behalf of the employee; ~~or~~ a trades union may arrange advantageous insurance cover available only to the members of the trades union; or a separate institutional unit may be established to manage a collective arrangement for selected groups of self-employed persons (see paragraph 24.100). Contributions to social insurance schemes are usually paid by, or on behalf of employees, though under certain conditions persons temporarily without employment~~non-employed~~ or self-employed persons may also be covered.

~~24.88~~24.91 ***A social insurance scheme is an insurance scheme where the following two conditions are satisfied:***

a. the benefits received are conditional on participation in the scheme and constitute social benefits as this term is used in the SNA; and

b. at least one of the three conditions following is met:

- ***Participation in the scheme is obligatory either by law or under the terms and conditions of employment of an employee, or group of employees;***
- ***The scheme is a collective one operated for the benefit of a designated group of workers, whether employees~~d~~ or self-employed persons, which may also include persons temporarily without employment, ~~or non-employed,~~ participation being restricted to members of that group;***
- ***An employer makes a contribution (actual or imputed) to the scheme on behalf of an employee,***

whether or not the employee also makes a contribution.

The second of these conditions implies that employer-independent schemes established specifically to provide social benefits for groups of self-employed persons may qualify as social insurance schemes; see paragraph 24.100 for a further elaboration.

~~24.89~~24.92 Those participating in social insurance schemes make contributions to the schemes (or have contributions made on their behalf) and receive benefits. Contributions and benefits are defined in similar ways to insurance premiums and claims. ***A social insurance contribution is the amount payable to a social insurance scheme in order for a designated beneficiary to be entitled to receive the social benefits covered by the scheme. A social insurance benefit is a social benefit payable because the beneficiary participates in a social insurance scheme and the social risk insured against has occurred***.

~~24.90~~24.93 Social security is a form of social insurance scheme. The relative importance of social security relative to other social insurance scheme varies considerably from one country to another depending on institutional arrangements. In some countries, social security may be restricted to basic pension provision of the social safety net variety. ~~In such cases even the pension provision of general government employees may be dealt with other than via social security.~~ At the other extreme, almost all pension provision, including that accruing to employees in government, private and public enterprises as well as self-employed persons, which may include persons temporarily without employment, may be routed through social security.

~~24.91~~24.94 The two classes of social insurance schemes are:

a. Social security,

b. ~~Employment-related~~Other social insurance schemes ~~other than social security~~.

The other social insurance schemes ~~other than social security~~ may be managed by an employer directly on his own behalf, or by a designated institutional unit set up to provide a collective social insurance type of arrangement. Alternatively, the other social insurance scheme may be arranged with an insurance corporation as a group policy or series of policies or they may be managed by an insurance corporation in return for a fee. ~~Alternatively, the schemes may be managed by an employer directly on his own behalf.~~

Multiemployer schemes

~~24.92~~24.95 An insurance corporation may, for a fee, agree not only to administer~~manage~~ a pension scheme but to take on the risks associated with it. This can be~~is~~ done in the context of performing this service for a number of schemes collectively under what is called a multiemployer scheme. Under many such schemes, the insurance corporation takes over the responsibility of managing the funds at its disposal so as to make sufficient funds available to meet pension liabilities and to make a surplus it can retain. If it fails to make sufficient funds available for the pension entitlements, it is then the responsibility of this firm and not the original employers, to make good the difference from its own resources.

24.96 Alternatively, special institutional units may be set up to administer multiemployer pension schemes, for which the risks associated with the scheme are shared between those participating in the scheme, be it the employers, the employees and/or the persons in retirement. Such schemes may have at some stages positive, or occasionally even negative, own funds, depending on whether the accumulated asset are higher, or lower, than the pension entitlements. Similar arrangements may exist for groups of self-employed persons, or self-employed persons may be permitted to join multiemployer schemes that are predominantly intended for employees.

~~24.93~~24.97 When government takes over the responsibility for providing pensions to large sections of the community, the social security function is in effect filling the role of a multiemployer scheme. Like the insurance corporation, the government then takes on the responsibility for any shortfall in funds to meet the pension liabilities or may be entitled to retain any surplus generated. It is often the case, though, that social security is funded on a pay-as-you-go basis so there is no question of a surplus arising and, if there is a shortfall in resources, government may have powers to change the entitlements not just relating to future employment but for the past also.

5. Individual insurance policies qualifying as social insurance

24.98 Many social insurance schemes are organized collectively for groups of workers so that those participating do not have to take out individual insurance policies in their own names. In such cases, there is no difficulty distinguishing social insurance from insurance taken out on a personal basis. However, some social insurance schemes may permit, or even require, participants to take out policies in their own names. Most of these individual policies that may qualify as social insurance schemes are likely to be for pension provision but it is also possible that they may cover other eventualities, for example by providing income in the case the policyholder is unable to work for a prolonged period because of ill-health.

24.99 In the case of employer-employee relationships, t~~T~~he determinants for the insurance to count as a social insurance policy, and not as an individual insurance policy, are that the benefits must be of the social benefit type (see paragraph 24.82), and an employer makes an actual or imputed contribution to the scheme on behalf of an employee. If participation to a scheme is not obligatory, but only encouraged, it can become more difficult to differentiate between social insurance type of schemes and individual insurance policies. It is clear, however, that insurance policies solely taken out by individuals would not qualify as social insurance, even if, for example, a discount is arranged for a designated group of people.

24.100 Schemes providing social benefits may also be established for groups of self-employed persons. When organized by government, as part of a broader arrangement, such schemes would typically qualify as social insurance. If government is not directly involved, the default option is to not treat such types of schemes as part of social insurance, unless the schemes are collective arrangements which provide policies, for certain industries or professions, with a strong resemblance to similar arrangements organized by employers or government. These schemes may, or may not, be encouraged by government; in the former case, this would strengthen the case for a classification as social insurance. In addition, to qualify as social insurance, generally separate institutional units should be established, which are subject to regulation or supervision in line with or similar to other social insurance schemes. In the case of pension-related schemes, an additional criterion for the qualification as social insurance is that accumulated contributions are set aside for retirement income.

~~24.94~~24.101 The premiums payable, and claims receivable, under individual policies taken out under a social insurance scheme are recorded as social contributions and social insurance benefits. Contributions to social insurance schemes are frequently paid on a monthly or even more frequent basis as they are often made directly when wages and salaries are payable.

~~24.95 Most individual policies that qualify as social insurance schemes are likely to be for pension provision but it is possible that they may cover other eventualities, for example to provide income if the policyholder is unable to work for a prolonged period because of ill-health.~~

~~24.96~~

~~24.97~~24.102 Individual insurance policies that do not qualify as social insurance are described as individual insurance not qualifying as social insurance, or in short as other insurance. They are recorded in the accounts of the sequence of economic accounts~~SNA~~ as described in sections A to F~~part 1~~ of this chapter.

6. Benefits payable under social insurance schemes

~~24.98~~24.103 In the SNA, social insurance benefits and the corresponding contributions are divided between those relating to pensions and those relating to all other forms of benefit. The most important pension benefit covered by social insurance schemes is income in retirement but a number of other contingencies may be covered also. For example, pensions may be payable to widows and widowers or to people who suffer an industrial injury and are no longer able to work. All of these sorts of contingencies that give rise to payments because the main income earner is no longer able, through death or incapacity, to provide an income for himself or herself and dependants are treated as pensions.

~~24.99~~24.104 All other benefits are grouped together as non-pension benefits. The distinction between the two is important because the sequence of economic accounts~~SNA~~ recognizes liabilities for some pensions whether there are actually assets set aside to meet the entitlements or not but recognizes reserves for non-pension benefits only when these actually exist.

I. Accounting for non-pension contributions and benefits

~~24.100~~24.105 Non-pension benefits may be payable under social security and under ~~employment related~~other social insurance schemes~~ other than social security~~. Although in many countries there may in fact be no non-pension benefits, a description is given of how these should be recorded if they exist. For other, non-pension related, social insurance schemes, the way of recording varies depending on whether reserves for provision of future benefits are set aside or not. Although in many cases there may be no such reserves and the benefits are paid on a pay-as-you-go basis, a description of the appropriate recording in each case is given.

1. Non-pension benefits payable under social security

~~24.101~~24.106 As is typical of social security schemes, there may be contributions payable by both the employer and the employee. Contributions may also be payable by self-employed persons, or persons temporarily without employment. The costs of operating social security schemes are treated as part of the normal expenditure of general government and so the accounting for social security operations does not include measures of output.

~~24.102~~24.107 In the sequence of economic accounts~~SNA~~ flows are recorded as follows.

a. Employers' social security contributions are shown as payable by the sector in which the employer is located and receivable by households. The sector of the employer may be any of non-financial corporations, financial corporations, general government (as an employer), employer households, NPISHs or the rest of the world (when a resident works for a non-resident institutional unit). For resident employers the payables are shown in the generation of earned income account; payables by non-resident employers are shown in the ~~primary distribution of~~earned income account for the rest of the world. Receivables by resident households are shown in the allocation of ~~primary~~earned income account and by non-resident households in the ~~primary distribution of~~earned income account for the rest of the world.

b. In the ~~secondary distribution of ~~income transfers other than social transfers in kind account, the sum of employers' social security contributions and social security contributions by households in their capacit~~ies~~y as employees or any other capacity, is shown as payable by households and receivable by government. Further, social security benefits in cash payable to households are shown as payable by government (or the rest of the world if from a foreign government) and receivable by households.

~~24.103~~24.108 An example of these flows is shown in table ~~17~~24.3.

Table ~~17~~24.3: Accounts for non-pension benefits paid through social security - ~~uses~~expenditures

Table ~~17~~24.3 (cont): Accounts for non-pension benefits paid through social security - ~~resources~~revenues

2. Unfunded non-pension benefits other than from social security

~~24.104~~24.109 In the SNA, an employer operating an unfunded scheme is regarded as making an imputed social contribution to the scheme on behalf of the employees. In practice, the value of the employers' and employees' contributions is usually set equal in value to the benefits payable in the period under consideration (plus the cost of operating the scheme as described in the following paragraph). The imputed contribution forms part of the ~~compensation~~remuneration of employees and is also shown as being payable by the employees to the scheme together with any actual payments by the employees. Even though the scheme is unfunded, the employee may still make a contribution; however, it is not uncommon for unfunded schemes to be non-contributory for the employees.

~~24.105~~24.110 Even if a scheme is unfunded, there are costs involved in administering it. In principle, output equal to the sum of these costs should be treated as being paid for by the beneficiaries from an imputed element of contributions. The imputed contribution to employees should include these costs as well as the value of the benefits received by employees. A value equal to the amount of the costs of operating the scheme is then recorded in the use of income account as a purchase of a service by the employees from the employer.

~~24.106~~24.111 There are two transactions recorded for the production and consumption of the services provided by the employer. Because the scheme is unfunded, there are no investment income flows and no contribution supplements to be recorded. There are two sets of redistributive transactions recorded.

~~24.107~~24.112 The production and consumption transactions are as follows.

a. Output of services is imputed in the production account of the employer and the value of the output forms part of the imputed employers' contributions to social insurance incorporated in ~~compensation~~remuneration of employees.

b. Consumption of the service is recorded as household final consumption expenditure in the use of income account for resident households or as exports for non-resident households.

~~24.108~~24.113 The redistributive transactions are as follows.

a. Employers' imputed contributions to unfunded social insurance schemes are shown as a payable by the sector in which the employer is located in the generation of earned income account and a receivable by households in the allocation of ~~primary~~earned income account.

b. In the ~~secondary distribution of~~ income transfers other than social transfers in kind account, employers' imputed contributions and any actual contributions by employees are shown as payable by households and receivable by the employer. Further, benefits payable to households by the employer are shown as payable by the employer and receivable by households.

~~24.109~~24.114 An example of these flows is shown in table ~~17~~24.4.

Table ~~17~~24.4: Accounts for non-pension social insurance benefits from unfunded other employment-related schemes - ~~uses~~expenditures

Table ~~17~~24.4 (cont): Accounts for non-pension social insurance benefits from unfunded other employment-related schemes - ~~resources~~revenues

3. Funded social insurance other than pensions

~~24.110~~24.115 As noted above, funded schemes for benefits other than pensions are not very common. They may, however, exist in two circumstances. The first is when an employer has a fund for such benefits and accumulates any underspend in one year to pay for possible overspends in future years. Alternatively, an employer may realize that the commitments to make payments in future are such that it is prudent to build reserves to be able to make such payments. An example of such a scheme might be one that provides health cover to present and past employees. Unlike in the case of pensions, estimates of possible future claims on social insurance benefits other than pensions are not necessarily included in the SNA. Liabilities are recorded only when and to the extent that they exist in the employer's accounts.

~~24.111~~24.116 Funded social insurance covering benefits other than pensions for employees, including persons temporarily without employment, may be carried out by insurance corporations or by employers on behalf of their employees. Separate units may also be established for administering a scheme for self-employed persons. The output of this activity is measured in the same way as the output of non-life insurance but the matching consumption of the services is payable only by the households of the beneficiaries. These will be resident households except where a resident producer is liable to pay benefits to a present or former employee who is a non-resident or who has a non-resident family member entitled to the benefits. The investment income attributed to the beneficiaries of the social insurance schemes can only be receivable by the same households.

~~24.112~~24.117 Employers' contributions relate only to employees. However, both current and former employees who are now, or may in future be, beneficiaries may make contributions to the scheme and receive investment income from it. This investment income is then treated as contribution supplements payable by those receiving it.

~~24.113~~24.118 All contributions to the schemes are recorded as payable by households. These contributions include that part paid by the employer as part of ~~compensation~~remuneration of employees in the generation of earned income account as well as contributions paid directly by the employee funded from wages and salaries or by others including former employees and self-employed persons. Further, households receive investment income attributable to policyholders in respect of these contributions and this is treated, in total, as contribution supplements. Two items of contributions appear in the ~~secondary distribution of~~ income transfers other than social transfers in kind account. The first, the employers' actual social contributions, is exactly equal in value to the amount receivable by households from the employer in the generation of earned income account. The second item, called households social contributions, includes the direct payment by households, including those paid by former employees and self-employed persons, plus the contribution supplements less the service charge payable to the social insurance schemes.

~~24.114~~24.119 Eight transactions must be recorded, ~~one each~~two relating to production and consumption of the insurance service, three relating to contributions and benefits, one to the investment income attributable to policyholders and two relating to the difference between contributions and benefits:

a. The activity by resident units is undertaken by an insurance corporation~~s, or~~ by an employer, or by a unit specifically established for administering a scheme; the output is recorded in the production account of the insurance corporations or in the sector of the employer as appropriate;

b. Employers' actual social contributions to employment-related social insurance schemes are shown as payable by the sector in which the employer is located in the generation of earned income account and receivable by households in the allocation of ~~primary~~earned income account;

c. Investment income attributed to policyholders (beneficiaries) in respect of these schemes is payable by insurance corporations and employers, and receivable by households. Both payables and receivables are recorded in the allocation of ~~primary~~earned income account;

d. ~~Net s~~Social contributions less service charges are shown in the ~~secondary distribution of~~ income transfers other than social transfers in kind account as payable by households and receivable by insurance corporations or the sector of the employer as appropriate;

e. ~~Employment-related~~Other social insurance non-pension benefits ~~other than pensions~~ are also shown in the ~~secondary distribution of~~ income transfers other than social transfers in kind account as payable by insurance corporations or the sector of the employer and receivable by households;

f. The value of the service is payable by households as part of final consumption expenditure and is recorded in the use of income account, except for non-resident employee households where it is payable by the rest of the world;

g. The excess of ~~net~~ contributions less serviced charges over benefits represents an increase in the liability of the insurance scheme towards the beneficiaries. This item is shown as an adjustment in the use of income account. As an increase in a liability, it is also shown in the financial account. As noted, the item is likely to occur only rarely and, for pragmatic reasons, changes in such non-pension entitlements may be included with those for pensions.

~~24.115~~24.120 An example of these flows is shown in table ~~17~~24.5.

Table ~~17~~24.5: Accounts for non-pension social insurance benefits from funded other employment-related schemes - ~~uses~~expenditures

Table ~~17~~24.5 (cont): Accounts for non-pension social insurance benefits from funded other employment-related scheme – ~~resources~~revenues

J. Accounting for pension contributions and pensions

~~24.116~~24.121 Pensions are provided to individuals in an economy under one of three mechanisms, via social security, via ~~employment-related~~other social insurance schemes ~~other than social security~~ or via social assistance. Together, social security and ~~employment-related~~other social insurance pension schemes ~~other than social security~~ constitute social insurance schemes. Although the benefits provided under social assistance and some social insurance schemes may be very similar, the key distinction is that social insurance benefits are only paid if the beneficiary participates in the social insurance scheme, participation being normally evidenced by the beneficiary or another on his behalf having made qualifying contributions. Social assistance is paid without qualifying contributions having been made though means-testing may be applied to applicants.

~~24.117~~24.122 The means by which pensions are provided to persons in retirement varies considerable from one country to another. This section~~part of chapter 17~~ describes the most common forms of pension provision made under social insurance schemes though not all aspects may apply to all countries. Pensions provided under social assistance are not discussed in this chapter but in chapters ~~8~~9 and ~~9~~10.

~~24.118~~24.123 Social insurance pensions in all countries are provided, if at all, in part by general government and in part by employers. They may also relate to collective arrangements for self-employed persons (see paragraph 24.100). The part provided by general government (other than certain schemes provided by government in its role as an employer) is called social security and the ~~part by employers~~remainder is called ~~employment-related~~other social insurance schemes~~ other than social security~~. The division between which pensions are provided by social security and which by other ~~employment-related~~social insurance schemes varies considerably from country to country with the consequence that the coverage and therefore national perceptions of what the term "social security" designates also vary considerably. In order to make clear the recommendations in the SNA, it is necessary to consider the types of coverage provided in different countries.

~~24.119~~24.124 The narrowest form of social security pension is very basic. The level may be fixed independently of the size of contributions (though not of the fact that contributions have been made for a given period of time). In the case of employer-employee types of arrangements, ~~A~~an employee's right to a pension under social security is often transferable ("portable") from one employer to another, which is an advantage not always applying to other pension provisions, but for many people in low paid jobs, working temporarily or intermittently, it may be the only form of pension provision they can expect to receive.

~~24.120~~24.125 ~~By contrast, i~~In some countries most or all pension provision may be made via social security. In this case, government acts as an intermediary relative to the employer, or self-employed person, so that once the government has received the contributions to the scheme paid by the employer and the households, the government then takes on the risk of making the eventual payment. Government relieves the employer, or the self-employed person, of the risk that the cost of pensions may be too great~~ for his enterprise~~ to meet and assures the population that pensions will be paid, though it may do so with the qualification that it may alter the amount of pensions payable, even retrospectively, if economic conditions so dictate.

24.126 Pension schemes derived from an employer-employee relationship, including those run by ~~private~~public employers, are usually not subject to retrospective adjustments of the amounts payable, but there is a risk that the employer may be unable to pay because he has gone out of business. Increasingly, though, protection for the pension entitlements of individuals is becoming more common. Equally, the pension built up with one employer may not be transferable to a new employer though this too is undergoing change. While social security may be, and very often is, financed on a pay-as-you-go basis, without building up reserves for future liabilities, other ~~employer~~social insurance schemes are increasingly likely to have reserves set aside. Even if there are no reserves, accounting conventions may require employers~~them~~ to recognize pension entitlements of present and past employees in their accounts.

~~24.121~~24.127 When it comes to the recognition of pension entitlements, entitlements related to social security type of schemes are typically not recognised as assets (and liabilities) in the sequence of economic accounts, while entitlements derived from an employer-employee relationship are recognized as such. The main reason for treating the latter entitlements as assets is that they are usually not subject to retrospective adjustments of the amounts payable. The entitlements can be regarded as part of the conditions of employment, whereas social security schemes are generally imposed by law. The legal nature of the employment contract underlying the scheme significantly limits the possibility of the manager, be it a private employer or a public employer, to change the basis on which entitlements are determined. This assumes that the conditions of employment are the same, or at least sufficiently similar, for employees of private and public employers. If this is indeed the case for schemes for public employees, the related entitlements would qualify as assets (and liabilities) in the sequence of economic accounts, most certainly if the schemes are clearly separated from the social security type of pension schemes. In certain circumstances, defining similarity may not be that straightforward. A public employment contract may not follow the same terms as a private employment contract. The former type of contracts may be more generous in some aspects (e.g., tenure) but more restrictive in other aspects (e.g., ability to join political groups). Moreover, in some countries, public employees are governed by a general law, not by individual employment contracts. In such cases, where there are separate schemes for public employees, the concept of similarity should first and foremost focus on the terms and conditions of compensation, both current compensation and future compensation after retirement.

~~24.122~~24.128 Employment-related pensions, other than the most basic form of social security, are seen as part of the compensation package and negotiations between employees and employers may focus on pension entitlements as much as on current conditions of service and pay scales. Often pensions are provided by ~~private~~ employers from funds that the employers control or contract to a third party such as an insurance corporation, or another unit specifically established to administer the scheme. These funds may also provide social benefits other than pensions, for example private medical coverage. It is sometimes possible for a specialized unit to agree to assume responsibility for providing pensions for a number of employers in return for assuming the risk of ensuring adequate funding is available to make the promised pensions. Such an arrangement is called a multiemployer pension scheme; see also paragraphs 24.95 to 24.97.

~~24.123~~24.129 As with non-pension social benefits, ~~both~~ current employees, ~~and~~ former employees and self-employed persons, who are current or future beneficiaries may make contributions to the scheme and receive investment income from it. This investment income is then treated as contribution supplements by those receiving it.

1. Social security pensions

~~24.124~~24.130 It is common but not essential for both employers and employees to make contributions towards a social security pension. In addition, contributions may be made by self-employed persons and persons temporarily without employment. It is also common for the contributions to be compulsory. Social security pensions are frequently funded on a pay-as-you-go basis. The normal assumption in the ~~main~~sequence of economic accounts of the SNA is that this is how social security pensions are funded. That is the contributions receivable in a period are used to fund the benefits payable in the same period. There is no saving element involved, either for the government operating the scheme or for the individuals participating in it. No liabilities for the scheme are recognized in the ~~main~~sequence of economic accounts of the SNA although concern is often expressed that benefits may exceed contributions and this situation is likely to worsen in an ageing population. For this reason, estimates of the liabilities of social security as well as any other pension schemes not included in the ~~main~~sequence of economic accounts are included in a supplementary table described below in section ~~J~~xx.

~~24.125~~24.131 The recording of the flows for social security pension schemes is simple. Any contribution made by the employer is treated as part of ~~compensation~~remuneration of employees. It is recorded as payable by the employer in the generation of earned income account and receivable by the employee in the ~~distribution of primary~~allocation of earned income account. The employee then pays an amount equal to what he receives from the employer together with any contribution he is liable to make on his own behalf to the social security fund. This amount is recorded as payable by households in the ~~secondary distribution of~~ income transfers other than social transfers in kind account and receivable by the government in the same account. Any contributions made by self-employed persons or persons temporarily without employment~~non-employed people~~ are also included with the contributions payable by households to government. Social security benefits are also recorded as payable by government and receivable by households in the ~~secondary distribution of~~ income transfers other than social transfers in kind account.

~~24.126~~24.132 An example of these flows is shown in table ~~17~~24.6. It is similar in content to table ~~17~~24.1 except that table ~~17~~24.1 relates to non-pension benefits and table ~~17~~24.6 to pension benefits.

Table 24~~17~~.6: Accounts for pension benefits paid through social security - ~~uses~~expenditures

Table ~~17~~24.6 (cont): Accounts for pension benefits paid through social security - ~~resources~~revenues

2. ~~Employment-related~~Other social insurance pension schemes ~~other than social security~~

~~24.127~~24.133 There are two forms of ~~employment-related~~other social insurance pension schemes ~~other than social security~~. One is called a defined contribution scheme, sometimes referred to as a money purchase scheme. ~~(The expression "defined contribution pension scheme" is not intuitive but is widely used in the pension industry.)~~ The other is a defined benefit scheme, for which the benefits are typically based on salaries earned during employment and the years of service~~sometimes referred to as a final salary scheme, though this term does not accurately describe all defined benefit schemes~~. Typically both schemes are contributory, in the case of schemes derived from an employer-employee relationship often by both the employer and the employee.

~~24.128~~24.134 ***A defined contribution scheme is one where the benefits payable to an employee, or self-employed person, on retirement are defined exclusively in terms of the level of the fund built up from the contributions made over the ~~employee's~~ working life and the increases in value that result from the investment of these funds by the manager of the scheme*.** The entire risk of the scheme to provide an adequate income in retirement is thus borne by the employee, or self-employed person.

~~24.129~~24.135 ***A defined benefit scheme is one where the benefits payable to an employee, or a self-employed person, on retirement are determined by the use of a formula, either alone or as a minimum amount payable.*** In this case the risk of the scheme to provide an adequate income in retirement is either borne entirely~~either~~ by the employer or is shared between the employer(s), the~~and~~ employees, or self-employed persons, and the retired persons. In certain cases, the ~~employer's~~ risk may be borne by the multiemployer scheme that operates the defined benefit pension scheme ~~on behalf of the employer~~. A scheme that may be defined in terms similar to a defined contribution scheme but with a guaranteed minimum, say, or other such hybrid schemes are grouped with defined benefit pension schemes in the SNA. Notional defined contribution schemes are also grouped with defined benefit schemes.

~~24.130~~24.136 For both types of schemes, pension entitlements of the participants are recorded as they build up. In both cases, there is investment income earned on existing entitlements and this is recorded as being distributed to the beneficiaries and reinvested by them in the pension scheme. There are, though, a number of different features of the two schemes, so the transactions relating to each are described in detail separately before turning to other changes in the levels of pension entitlements. The recording of transactions for a defined contribution scheme is less complicated than the defined benefit scheme and is described first.

~~24.131~~24.137 ~~For both types of schemes, a pension fund is assumed to exist.~~ For a defined contribution pension scheme, a fund must exist. For ~~a~~ defined benefit pension schemes, there are three cases: (i) a fund of accumulated assets~~may~~ exists and is sufficient to cover the pension entitlements (fully funded) ~~in reality~~; (ii) a fund of accumulated assets exists, but is insufficient to meet the pension entitlements (partially funded); or (iii) ~~or it may be a notional~~no fund exists (unfunded). If ~~it~~a fund exists, it may be part of the same institutional unit as the employer, it may be a separate institutional unit (an autonomous pension fund~~scheme~~) or it may be part of another financial institution, either an insurance corporation or a multiemployer pension scheme. In describing the recording of transactions, transactions with the pension fund must be attributed to the sector where the fund is located.

Defined contribution pension schemes

~~24.132~~24.138 Recording the transactions related to a defined contribution pension scheme presents no conceptual problems. There are no associated imputations either for the flows concerned or for the values appearing in balance sheets for the pension entitlements of the beneficiaries nor any doubt as to which unit has a liability and which an asset.

Transactions recorded for a defined contribution pension scheme

~~24.133~~24.139 The contribution made by an employer to a defined contribution pension scheme on behalf of his employee is treated as part of ~~compensation~~remuneration of employees. It is recorded as payable by the employer in the generation of earned income account and receivable by the employee in the ~~distribution of primary~~earned income account.

~~24.134~~24.140 The investment income on the cumulated pension entitlements is also recorded as being distributed to (receivable by) households in the allocation of earned~~primary~~ income account and is shown as payable by the pension fund. The investment income includes interest and dividends payable plus the distributed income of collective investment schemes if the pension fund holds shares in them. It is possible that the pension fund may own property and generate net operating surplus on this which is also included along with the investment income as being distributed to the pension beneficiaries. In this case, the term investment income is to be interpreted as being elastic enough to include this source of income if it exists. Holding gains and losses generated by the investment of the cumulated pension entitlements are not included in investment income.

~~24.135~~24.141 Part of the income distributed to households is used to meet the costs of operating the pension fund. This cost is shown as the output of the pension fund in the production account and as an element of consumption expenditure by households in the use of income account. The remaining part of the distributed income is treated as pension contribution supplements paid back by households to the pension funds.

~~24.136~~24.142 In the ~~secondary distribution of~~ income transfers other than social transfers in kind account, social contributions are shown as payable by households and receivable by the pension fund. The total amount of the social contributions payable is made up of the actual contributions payable by the employers as part of ~~compensation~~remuneration of employees, actual contributions by employees and possibly by other individuals (individuals formerly participating in a scheme, self-employed and non-employed persons as well as retirees) plus the contribution supplements just specified. For clarity, and to enhance the comparison with defined benefit schemes, the supplements are shown at full value in both the allocation of earned~~primary~~ income account where they appear as investment income and in the ~~secondary distribution of~~ income transfers other than social transfers in kind account where they appear as contribution supplements. However, the service charge is shown as an offsetting negative element to total household contributions in the ~~secondary distribution of~~ income transfers other than social transfers in kind account. The total contributions made by households to the pensions scheme are ~~net~~adjusted for the service charges in the same way that direct insurance premiums are ~~net~~adjusted, that is to say they are the total of all contributions made less the service charge appearing in the use of income account.

~~24.137~~24.143 Those other than employees who contribute to a defined contribution pension scheme may be self-employed persons participating in a defined contribution pension scheme or may be persons not employed who participate in a defined contribution pension scheme by virtue of their profession or former employment status, for example.

24.144 Also in the ~~secondary distribution of~~ income transfers other than social transfers in kind account, the pension benefits payable to households by the pension fund are shown. However, the benefits payable under a defined contribution pension scheme take the form of a lump sum payable at the moment of retirement. It may be a requirement of the scheme that these sums are to be immediately converted to an annuity with the same or another financial institution but this is not a universal requirement. The appropriate recording of the benefits is not to show the benefit as payable immediately on retirement and then, where appropriate, reinvested in terms of an annuity or other forms of financial assets but to record the transfers of the entitlements and related assets as financial transactions. Any difference between the transfer of entitlements and the transfer of related assets is to be recorded as a capital transfer between the pension scheme and the unit providing the annuity.~~notionally as a reclassification from life insurance entitlements to annuities entitlements. However, since no distinction is normally made between these two sets of entitlements, no actual classification change will show in the accounts~~. In this respect, it is also important to note that the benefits from such an annuity continue to be recorded as pension benefits. For more information on the transfer of entitlements, see paragraphs 24.196 to 24.200. In case the benefits become payable in the form of a lump sum, and the subsequent investment into an annuity (or another form of investment) is an individual decision, the lump sum would be recorded as pension benefits, followed by the purchase of a (individual) life insurance contract. The recording of annuities is discussed in ~~part 1~~section D of this chapter.

~~24.138~~24.145 In the use of income account, there is an entry for the payment of the service provided by the pension fund (equal to the value of the pension fund's output) payable by households to the pension fund.

~~24.139~~24.146 In the same account there is an entry showing the increase (or decrease) in pension entitlements caused by the excess (or deficit) of contributions payable less benefits receivable in the ~~secondary distribution of~~ income transfers other than social transfers in kind account. This amount is shown as payable to households by the pension fund. Because much of the increase in the pension entitlement of participants in a defined contribution pension scheme, and thus ultimately the funding for the benefits, come from holding gains that are not included in the contribution supplements of participants in defined contribution pension schemes, the adjustment for the change in pension entitlements for these individuals will frequently be negative.

~~24.140~~24.147 The adjustment for the change in pension entitlements that is included in the use of income account as payable by the pension fund to households is shown in the financial account as payable by households to the pension fund. The effect of any transfer of the obligations to meet pension entitlements from a unit in one sector to another are also reflected in the financial account item.

~~24.141~~24.148 The other factors affecting the change in the balance sheet entry for the change in pension entitlements are shown in the other changes in assets accounts. In particular, the liabilities of the scheme to the beneficiaries show holding gains or losses in the revaluation account corresponding exactly to those on the assets held by the scheme to meet these obligations. ~~When payments under a defined contribution scheme are made via annuities, other volume changes may need to be recorded as explained in paragraph 17.136~~.

~~24.142~~24.149 Table ~~17~~24.7 illustrates the entries necessary to record the transaction related to a defined contribution scheme. It is simpler than the corresponding table for a defined benefit scheme, which is described in the following section, because of the absence of any imputed transactions.

Table ~~17~~24.7: Accounts for pension benefits payable under a defined contribution scheme - ~~uses~~expenditures

Table ~~17~~24.7 (cont): Accounts for pension benefits payable under a defined contribution scheme - ~~resources~~revenues

Defined benefit pension schemes

Differences between a defined benefit and a defined contribution pension scheme

~~24.143~~24.150 The fundamental difference in accounting for a defined benefit pension scheme as compared with a defined contribution pension scheme is that, for the defined benefit pension scheme, the benefit to the employee in the current period is determined in terms of the undertakings made by the employer about the level of pension ultimately receivable, whereas for the defined contribution pension scheme the benefit to the employee in the current period is determined entirely by the contributions made to the scheme and the investment income and holding gains and losses earned on these and previous contributions. Thus while there is (in principle) exact information available on the ~~benefits~~pension entitlements accrued to date by ~~for~~ the participants in ~~a~~the defined contribution pension scheme, the ~~benefits~~pension entitlements accrued to date by ~~for~~ the participants in a defined benefit pension scheme must be estimated. The source of these estimates is the actuarial estimates drawn up by the employer or other institutional unit administering the scheme~~is faced with in drawing up his own accounts~~.

~~24.144~~24.151 There are four sources of changes in pension entitlements in a defined benefit pension scheme. The first of these, the current service increase, is the increase in entitlements resulting from the employee service~~associated with the wages and salaries earned~~ in the current period. The second source~~, the past service increase,~~ is the increase in the value of the entitlement due to the fact that for all participants in the scheme, retirement (and death) are one year nearer. The third change in the level of entitlement is a decrease due to the payment of benefits to retirees of the scheme. The fourth source of change comes from the past service increase, which is the change in the present value of the pension entitlement for employee service in prior periods resulting from scheme amendments or curtailments, and other factors~~, factors that are reflected in the other changes in assets account~~.

~~24.145~~24.152 As with a defined contribution pension scheme, both employer and employee may make actual contributions to the scheme in the current period. However, these payments may not be sufficient to meet the increase in the benefits accruing from the current year's employment. Therefore an additional contribution from the employer is imputed to bring equality between the contributions and the increase in current service entitlements. These imputed contributions are usually positive but it is possible for them to be negative if the sum of the contributions received exceeds the increase in current service entitlements. The implications of this case are discussed below when examining the relationship between the employer and the fund.

~~24.146~~24.153 At the end of an accounting period, the level of the pension entitlements due to past and present employees can be calculated by estimating the present value of the amounts due to be paid in retirement using actuarial estimates of the expected life length of the beneficiaries. This is the amount that appears in the balance sheet as the liability towards the employees. One element in the increase of this amount year by year is the fact that the present value of the entitlements existing at the beginning of the year and still due at the end of the year have increased because the future is one year nearer and so one fewer discount factor must be used to calculate the present value. It is this unwinding of the discount that accounts for the investment income earned by the pension beneficiaries~~past service increase in entitlements~~.

~~24.147~~24.154 A further basic difference between a defined benefit pension scheme and a defined contribution pension scheme concerns the payment for the cost of operating the pension scheme. As already noted, under a defined contribution pension scheme all the risk is borne by the beneficiaries. The pension scheme is operated on their behalf and they pay for the cost of it. Since the fund may be operated by a unit other than the employer, it is appropriate to treat the operating cost as part of the investment income that is retained by the fund to meet its costs (and generate a profit). In keeping with accounting for insurance, the investment income is treated as being attributed in full to the beneficiaries, part being used to meet the cost and the remainder being reinvested with the fund.

~~24.148~~24.155 For a defined benefit pension scheme, the situation is somewhat different. The risk that the fund may be insufficient to meet the promises of entitlement is met in part or in whole by the pension manager (either the employer or a unit that has assumed the risk of meeting the pension obligations, often referred to as the pension sponsor) and not by the beneficiaries alone. The fund may be directly controlled by the employer and be part of the same institutional unit or may be purely notional. Even in this case, there are costs associated with operating the scheme. Although these are initially borne by the employer, it is appropriate to regard this as a form of income in kind provided to the employees and for convenience it may be included with the employers' contributions. There is an element of pragmatism in this since this assumes all the costs are borne by current employees and none by retirees. It also assumes that the attribution that must be made in the case of notional schemes can be applied in other circumstances also.

~~24.149~~24.156 For a defined benefit scheme, it is unlikely that self- and non-employed persons currently contribute though it is possible if they were previously in employment giving rise to a defined benefit pension and have the right to continue to participate. Those previously in employment (whether currently in receipt of a pension or not) receive investment income and pay contribution supplements.

Transactions recorded for a defined benefit pension scheme

~~24.150~~24.157 The initial discussion assumes that the employer retains the whole responsibility for meeting the pension payments. Alternatives involving the use of a multiemployer scheme or where government assumes responsibility on behalf of the employer are discussed subsequently.

24.158 The total contribution made by an employer to a defined benefit pension scheme on behalf of his employee must be sufficient that, together with any actual contribution by the employee and excluding the cost of operating the scheme, it exactly matches the current service increase in the employee's pension entitlements. The contribution by the employer is divided into an actual and an imputed part, the latter being calculated so as to meet the need of an exact match between all contributions to the fund adding to the entitlements of the employee and the current service cost of these entitlements.

~~24.151~~24.159 The contribution by the employer should be calculated in relation to the pension entitlements earned in the period regardless of any investment income earned by the scheme in the same period or any overfunding of the scheme. The current period entitlement is part of ~~compensation~~remuneration of employees and not to include the full value of the employer's contribution understates ~~compensation~~remuneration of employees and therefore overstates operating surplus. An extreme case has occurred in the past when the investment of the pension entitlements has done so well that the employer has taken a "contribution holiday", that is he has not made an actual contribution towards new entitlements. It is important that contributions continue to be recorded even in the event of a contributions holiday, the benefit to the employer being regarded as a change in liabilities between the pension fund and the employer. This leaves the net worth of both the same as when contributions are not recorded under a contributions holiday without reducing ~~compensation~~remuneration of employees artificially.

~~24.152~~24.160 Under many defined benefit schemes, there is a qualifying period before an employee does in fact become eligible to receive a pension in retirement. Despite this qualifying period, both contributions and entitlements should be recorded from the start of employment adjusted by a factor reflecting the probability that the employee will in fact satisfy the qualifying period.

~~24.153~~24.161 The sum of employers' actual and imputed pension contributions is treated as part of ~~compensation~~remuneration of employees. It is recorded as payable by the employer in the generation of earned income account and receivable by the employee in the allocation of ~~primary~~earned income account.

~~24.154~~24.162 The increase in the present value of the entitlements of continuing employees and those who no longer contribute but remain eligible for pensions in future ~~(the past service increase)~~ represents the investment income distributed to the employees. No deduction is made for any amount that may be funded from holding gains or that is not actually matched by existing funds. It matches the amount that is unequivocally due to the employee under the prevailing agreements; the means by which the employer may ultimately match this obligation is not relevant for the recording of this as investment income any more than t he means by which interest or dividends are actually financed affect their recording as investment income. The investment income is recorded as payable by the pension fund and receivable by households. It is immediately reinvested by the households in the fund and in this guise is described as pension contribution supplements.

24.163 Especially in the case of (significantly) underfunded schemes, the income earned on the accumulated assets may fall short of the investment income payable on pension entitlements. On the other hand, there may be schemes where the income earned from accumulated assets is in excess of the investment income payable on pension entitlements. The shortfall (or excess) in investment income receivable by the pension fund is treated as an imputed investment income attributable to surplus/shortfall in defined benefit pension funds. This income flow is recorded as a (negative) payable and a (negative) receivable between the pension manager (i.e., the sponsor of the pension scheme) and the pension fund. As a result, the income related to the unwinding of the entitlements exactly matches the income earned on the accumulated assets plus the imputed income from the pension manager.

~~24.155~~24.164 In the ~~secondary distribution of~~ income transfers other than social transfers in kind account, social contributions are shown as payable by households and receivable by the pension fund. The total amount of the social contributions payable is made up of the actual and imputed contributions payable by the employers as part of ~~compensation~~remuneration of employees (excluding the amount of the costs of running the pension scheme), plus actual contributions by employees, plus the contribution supplements ~~just~~ specified in paragraph 24.162. As explained in the discussion under defined contribution schemes, the accounts show the full value of the contributions and contribution supplements with an offsetting item representing the service charge payable. ~~The amount actually payable is thus a net contributions figure.~~

~~24.156~~24.165 Also in the ~~secondary distribution of~~ income transfers other than social transfers in kind account, the pension benefits payable to households by the pension fund are shown. When the benefits are taken in terms of an annuity, it is the annuity payments that are shown here, not the lump sums payable at the time of retirement. ~~(Unless the demographics of the retirees changes dramatically, the two figures will be very similar in any case.)~~

~~24.157~~24.166 In the use of income account, there is an entry for the payment of the service provided by the pension fund (equal to the value of the pension fund's output plus the output of the enterprises operating annuities bought with pension entitlements) payable by households to the pension fund and recorded as final consumption expenditure.

24.167 Also in the use of income account, there is an entry showing the increase (or decrease) in pension entitlements caused by the excess of contributions payable less benefits receivable in the ~~secondary distribution of~~ income transfers other than social transfers in kind account. This amount is shown as payable to households by the pension fund. In the case of a defined benefit pension scheme, the amount is unlikely to be negative unless it is a scheme for a defunct employer and it is only paying benefits and not receiving new contributions.

~~24.158~~24.168 The value of defined benefit pension entitlements may also be affected by changes in the terms of entitlements, mainly impacting past service costs. If these changes in terms are the result of negotiations between the employer (pension manager, often referred to as the pension sponsor) and beneficiaries, for example via a trade union, or the result of a legislative act, for instance on pension reforms for public sector employees, in which the 'negotiation' is deemed to have taken place via the discussion by members of the legislature, the changes in entitlements should be recorded as capital transfers from the beneficiaries to the pension scheme, and subsequently as a capital transfer from the pension scheme to the pension manager.

~~24.159~~24.169 The same amount that is included in the use of income account as the adjustment for the change in pension entitlements plus the changes in entitlements as a result of negotiations about the terms are~~is~~ included in the financial account as a change in the claim by households on the pension fund. ~~(The other part of this item reflects any change in responsibility for pension entitlements recorded as part of capital transfers.)~~The other factors affecting the change in the balance sheet entry for the change in pension entitlements are shown in the other changes in assets accounts and are discussed further below ~~in section 4~~.

Defined benefit pension schemes operated by other than employers

~~24.160~~24.170 It is possible that some other organization, such as a trades union, may operate a defined benefit pension scheme for its members that is in all respects parallel to an employer's defined benefit pension scheme. Exactly the same recording is followed as just described except that references to the employer should be understood to refer to the scheme organizer and references to the employee should be understood to refer to the participant in the scheme.

The relationship between the employer and the pension fund

~~24.161~~24.171 As noted above, an employer may contract with another unit to administer the pension scheme~~fund~~ and arrange disbursements to the beneficiaries. There are two ways in which this may happen. The operator of the pension scheme~~fund~~ may simply act as the employer's agent and the responsibility for any shortfall in the fund (or the benefit of any excess) remains with the employer. In this case the unit handling the day to day running of the pension scheme~~fund~~ is called the pension administrator.

24.172 However, it is not uncommon for a single unit to contract with several employers to manage their pension schemes~~funds~~ as a multiemployer pension scheme~~fund~~. The arrangements are such that the multiemployer pension scheme~~fund~~ accepts the responsibility for any shortfall in the funds to meet the liabilities in return for the right to keep any excess funds. By pooling the risks over a number of employers the multiemployer fund expects to balance under- and over-funding so as to emerge with an excess over all the funds taken as whole in a similar way that an insurance corporation pools risk for many clients. In such a case, the unit assuming responsibility for meeting the pension obligations becomes the pension manager in place of the employer.

24.173 Alternatively, as noted in paragraph 24.96, special institutional units may be set up to administer a multiemployer pension scheme, for which the risks associated with the scheme are shared between those participating in the scheme, be it the employers, the employees and/or the persons in retirement. Such schemes may have at some stages positive, or occasionally even negative, own funds, depending on whether the accumulated asset are higher, or lower, than the pension entitlements. Similar arrangements may exist for groups of self-employed persons.

~~24.162~~24.174 In the case where the employer retains the liability for any underfunding or the benefit of any overfunding, a (negative) claim on ~~(or liability towards)~~ the employer (the pension manager) by the pension fund should be recorded for any deficit or surplus. The change in this claim is equal to the difference between the increase in pension entitlements and the sum of the contributions and contributions supplements in the period, plus the investment income earned on the entitlements, plus the holding gains made on them, less the pensions payable, less the fee charged by the pension administrator. When the amount accruing to the pension fund exceeds the increase in entitlements, there is an amount payable by the pension fund to the employer as pension manager. In this way the net worth of the pension fund remains exactly zero at all times.

~~24.163~~24.175 The amount due to the pension manager by the pension fund is where the impact of a contribution holiday shows up since it includes the amount of the employer's contributions that would normally be payable.

A numerical example

Transactions for ~~a~~ defined benefit schemes operated by other than employers

~~24.164~~24.176 In order to illustrate the recording of transactions connected with a defined benefit pension scheme, table ~~17~~24.8 shows a numerical example. Figures that are imputed are shown in bold; those that result from re-routing are shown in italics.

Table ~~17~~.8: Accounts for pension benefits payable under a defined benefit scheme - ~~uses~~expenditures

Table ~~17~~24.8 (cont): Accounts for pension benefits payable under a defined benefit scheme - ~~resources~~revenues

~~24.165~~24.177 Actuarial calculations show that the increase in pension entitlement coming from current service, that is the pension "earned" in the year in question is 15. Households (the employees) contribute 1.5. The employer therefore is obliged to provide 13.5. In addition the cost of operating the scheme is estimated at 0.6. In total therefore the employer must provide 14.1. He actually contributes 10 so the remaining 4.1 is an imputed contribution. The output of 0.6 is shown in the production account; the contributions by the employer are shown as payable by the employer in the generation of earned income account and receivable by the households in the allocation of ~~primary~~earned income account.

~~24.166~~24.178 In the allocation of ~~primary~~earned income account, investment income is also shown. The increase in pension entitlement coming from ~~past service, due to~~ the unwinding of the discount factor because retirement is one year nearer, is 4. This is shown as an imputed flow of investment income from the pension fund to households. At the same time, the pension fund actually earns 2.2 from investment income of the funds they manage. ~~At this point, therefore, there is a shortfall of 1.8 in the pension fund resources but it is not shown in the current accounts.~~ The difference between the unwinding of the pension entitlements and the actual investment income received is to be recorded as (imputed) investment income on the claim between a pension fund and its sponsor. As a consequence, the entitlement coming from past service is matched by actual receivables of investment income and imputed investment income receivable from the pension manager.

~~24.167~~24.179 In the ~~secondary distribution of~~ income transfers other than social transfers in kind account~~s~~, the payments from households to the pension fund are shown. This can be viewed in one of two ways. The sum of the contributions paid by households should be equal to the increase in entitlements coming from current service (15) plus that coming from income on past entitlements (4) or 19 in total. The amounts actually paid are 10 received as the employers' actual contributions, 4.1 as the imputed contributions, 1.5 of the households own contributions, contribution supplements of 4 less the service charge of 0.6; again 19 in total. In the same account pensions of 16 are also shown as payable by the pension fund to households.

~~24.168~~24.180 In the use of income account, as well as the purchase of the service charge as part of household final consumption expenditure, the change in pension entitlement is shown as payable by the pension fund to households. In this example, the amount of household contributions of 19 is set against pension benefits of 16. There is thus an increase in pension entitlements of 3 owing to households.

~~24.169~~24.181 Households have saving of 17.5 of which 3 is the increase in their pension entitlements. This means that they have acquired other financial assets (or reduced liabilities) by 14.5. This figure is the difference between the benefits received (16) and households' actual contributions of 1.5.

~~24.170~~24.182 For pension funds, saving is ~~-1.2~~0.6 but this can be seen as the composite of the actual and imputed elements. In terms of actual flows, pension funds receive contributions of 10 from employers routed via households, 1.5 from households and pay out benefits of 16. In addition, they receive investment income of 2.2. Their disposable income is thus -2.3. When the change in pension entitlements of 3 is taken into account, saving is -5.3. In addition, employers make an imputed contribution of 4.1 and also pay an imputed investment income on the claim of the pension fund of 1.8. ~~This~~The former element is routed via households. Both elements together ~~but~~ add~~s~~ ~~4.1~~5.9 to the saving of the pension fund and reduces saving of the employer by the same amount.

~~24.171~~24.183 In the financial account of the pension fund, the figure of 4.1, which was the imputed contribution, as well as the figure of 1.8, which was the imputed investment income, are~~is~~ shown as the claim of the pension fund on the employer. There is a claim by households on the pension fund of the change in pension entitlements of 3. In addition the pension fund either runs down financial assets or increases liabilities by 2.3, the figure corresponding to disposable income excluding the imputed contribution element from the employer.

Transactions for ~~D~~defined contribution pension schemes

~~24.172~~24.184 Table ~~17~~24.7 shows the similar flows for a defined contribution scheme. The accounts are simpler, compared to the defined benefit case, because there are no imputed contributions. Further, the investment income payable by the pension fund to households reflects only investment income received by the pension fund and does not involve calculations about increases in entitlement from the operation of a formula.

~~24.173~~24.185 The investment of the entitlements of defined contribution pension schemes leads to holding gains (and possibly losses). These come about through the management of the assets held by the fund but an amount exactly equal to the holding gains and losses should be attributed as an increase in the pension entitlement of the beneficiaries. The holding gains appear under entries for the relevant assets in the revaluation account for the pension fund with a matching entry for the increase in the liability of the pension fund towards households.

Other flows for ~~a~~ defined benefit pension schemes

~~24.174~~24.186 At first sight it would seem that there are no entries to be made in the other changes in assets accounts for a defined benefit pension scheme since the two components recorded as the pension contributions and investment income are matched exactly to the increase in entitlements. However, because the nature of a defined benefit pension scheme is that the amounts due are determined by a formula, there are other factors that may intervene to change the level of entitlements. These factors include, for example, actuarial gains and losses, i.e., changes in entitlements resulting from experience adjustments (the effects of differences between the previous actuarial assumptions and what has actually occurred) and the effects of changes in actuarial assumptions, among which changes in the discount rate, changes in demographic assumptions about life length and other changes in the formula used to determine benefits. It may also include the impact of settlements that eliminate all further entitlements for part or the whole of entitlements. ~~a price escalation clause, changes in the formula used to determine benefits and demographic assumptions about life length. The special case of the impact of promotions on entitlements is discussed separately below.~~ These changes in entitlements are generally to be recorded as other changes in the volume of assets and liabilities, unless they are clearly driven by a price element (such as change in the estimates of entitlements due to changes in the expected levels of price indexation).

~~A pension fund invests the funds at its disposal. If they work on a fully funded basis, the investment income should be more than enough to cover any price escalation clause in the pension agreement. The excess may also be sufficient to cover some other adjustments to entitlements. However, a major source of revenue comes from holding gains on investments. These were assumed to be sufficient to cover most or all changes in entitlements. It has become clear that many schemes were underfunded in the expectation that holding gains would make up this shortfall also.~~

~~Given these adjustments are funded in large part by holding gains which appear in the revaluation account, it seems reasonable to record the contingencies that they are assumed to cover in the other changes in the volume of assets account except for the price escalation factor which should appear in the revaluation account.~~

~~The issue of promotions~~

~~Many defined benefit pension schemes use a formula to set benefits that involves either the final salary or average salary as a key determinant. This implies that any promotion means that the total pension entitlements accrued to date are increased to take account of the new salary level. This is a significant benefit for the individual being promoted but what are the consequences for the employer's pension liabilities?~~

~~The accounting profession uses two actuarial terms that bear on this discussion. The accrued benefit obligation (ABO) records, as it name implies, only the benefits actually accrued to date. It represents the amount the employee could walk away with if he left the firm tomorrow and may be the basis of assessing a person's net worth in the case of a divorce settlement, for example. A projected benefit obligation (PBO) is a more prudent measure of what the eventual level of entitlement is likely to be. For an individual, the PBO makes assumptions about how many future promotions the person is likely to receive and calculates his final salary accordingly. Then, if he has in fact only worked 20 out of an expected 40 years, it halves the final salary and calculates pension entitlement for the individual as if this were his current salary. Where an individual's ABO increases in steps as he is promoted, the PBO increases steadily over time. For the individual, PBO is always higher than ABO until the moment of retirement when the ABO catches up with the PBO.~~

~~It would seem at first sight that the level of pension entitlements for a corporation should be the sum of all the pension entitlements of each of the employees and that therefore the sum of the PBO estimates would be considerably higher than that of the sum of the ABO estimates and would evolve more smoothly over time. However, what is true for the individual is not necessarily true for the cohort of employees. Suppose the employer has five classes of people for whose pensions he is responsible, four grades of employees and one set of retirees, and for simplicity there are the same number of each. Consider the situation where in a year the retirees die; the most senior set of employees retire, the next three sets of employees are all promoted and a new set of employees is recruited at the lowest level. Every current employee is better off after promotion but the overall liability of the employer has not changed. The effect of aggregating ABOs is to smooth the total entitlement and while it will still be lower than the aggregate PBOs, it will not necessarily be more volatile. Indeed it may be more stable.~~

~~While the profile of the ABO of an individual will show step changes when promotions occur, for a cohort of employees, the effect is much smoother. For a cohort of the same age remaining with the corporation for the whole of their working lives, the ABO estimates will be considerably lower than PBO estimates in the early years but the rate of increase of the ABOs will be faster than that of the PBOs so that at the point immediately before retirement, the two sets of estimates will be equal. Merging cohorts of employees with different periods of service with the corporation will bring the ABO estimates for all employees closer to the PBO ones also.~~

~~As long as the grade structure of the corporation stays the same, ABO and PBO will move roughly in step. If the firm expands and takes on many new employees at the lower grades, the PBO will be increase noticeably faster than the ABOs because the PBOs make estimates of how long the new employees will stay and how far they will be promoted while the ABOs record simply the pension accrued in their first year. If the firm decides to downsize and reduces the number of their managerial staff, this will reduce the promotion prospects of the employees and a downward revision in PBO will be necessary. Because ABOs reflect simply the "locked in" pension, this estimate is not affected.~~

~~The question arises, though, of how to record the impact of promotion on the employee if an ABO recording is used. Any version of treating the increase as a form of compensation of employees or investment income falls back into the assumption that the aggregate of entitlements is the sum of the individual entitlements but without looking at other individual impacts on the aggregates such as when someone leaves and loses pension entitlement because not enough time has been served or when someone dies before retirement age. A simpler and adequate solution is to treat the impact of promotions for the unit as a whole as a price change and record the change in the revaluation account.~~

~~If the PBO method of recording entitlements is chosen as the preferred valuation, an adjustment in the other changes in volume of assets account is needed only if the structure of the enterprise changes so the chances of promotion change. On the other hand, the regular estimates of the employer's contributions to social insurance schemes included in compensation of employees will be systematically higher than those made under an ABO regime because the increase in pension entitlement that determines the size of the contributions will be based on a notional salary calculated on a PBO basis rather than the actual one.~~

3. Transferring pension entitlements

~~24.175~~24.187 One characteristic of the changing environment of pensions is the increasing possibility of having "portable pensions". ~~Until recently it was often~~It used to be the case that a person leaving one employer had his pension frozen at that point and had to start a new pension with the new employer. It is becoming more common now for a person moving jobs to be able to convert the pension entitlement with the former employer to one with the new employer. When this happens, the pension entitlement of the household concerned is unaffected but there is a transaction between the two pension funds as the new one assumes the liability of the former. In addition there will be a counterpart transaction in some assets to match these liabilities. If the new employer is running a scheme that is actually unfunded, he may receive cash from the former employer. If this cash is then used by the employer for purposes other than the pension fund, his liability to the fund increases and his use of the cash appears as net borrowing.

24.188 More generally, pension entitlements may be transferred between schemes. These transfers may be fully requited, partially requited, or non-requited. In the case of a fully requited transfer, the transfer of entitlements is accompanied by an equal transfer of funds, and the transfer of the entitlements as well as the transfer of the funds should be recorded as financial transactions. The transfer of funds may include the claim on the pension manager, if the pension manager remains responsible for the shortfall of accumulated assets. In the case of a partially requited transfer which is accompanied with a change of the unit being responsible for the shortfall, the difference between the value of the pension entitlements and the value of the transferred funds should be recorded as a capital transfer between the unit taking over the responsibility for the entitlements (i.e., the new pension manager) and the unit who originally had the responsibility for the scheme (i.e., the original pension manager).

~~24.176~~24.189 Non-requited transfers may happen, ~~I~~if for example government assumes the responsibility for pension provision for the employees of a non-government unit through an explicit transaction.~~,~~ In such a case, a pension liability should be recorded in the balance sheet of government. If the government does not receive any matching assets in return, ~~the difference between~~ the increase in the government's liability ~~and the assets received~~ is shown as a capital transfer to the non-government employer. There is further discussion of this type of arrangement in chapter ~~22~~30.

24.190 Another way in which pension entitlements may be transferred between funds is when one corporation takes over another. If the pension fund is a separate institutional unit, all that changes is control of the pension fund. If there is no separate institutional unit, assuming the takeover does not change the terms of the pension plan for existing participants, the corporation being taken over passes both the pension liabilities and the corresponding assets to the new owner.

24.191 Finally, sometimes a transfer of entitlements may involve a reduction in the value of pension entitlements. For example, in the case of an employer bankruptcy, the scheme taking over (transferring in) the pension entitlements of the bankrupt employer's scheme may only offer members a proportion of the value of the future benefits (not the full benefits). Such a reduction should be recorded as an other change in the volume of assets, and in the case the original debtor still exists, a subsequent capital transfer for the reduced value from the unit taking over the entitlements to the unit transferring out the entitlements. In case the original debtor does not exist anymore, the original entitlements should be written down in full, via an other change in volume of assets, followed by a capital transfer from the unit taking over the reduced entitlements to the beneficiaries, combined with a financial transaction in entitlements.

4. A note on the tables

~~24.177~~24.192 For cross-reference with tables in other chapters, table ~~17~~24.9 shows the itemized components of transactions pertaining to social and other insurance in tables ~~17~~24.1 to ~~17~~24.8 inclusive.

Table ~~17~~24.9: Detailed transactions concerning social insurance

K. ~~The special case of government providing pensions via social security~~A supplementary table for pension schemes

~~24.178~~24.193 In recognition of the fact that social security is normally financed on a pay-as-you-go basis, entitlements accruing under social security (both pensions and other social benefits) are not normally shown in the SNA. If all countries had similar benefits provided under social security and under ~~private~~other social insurance pension schemes, international comparisons would be relatively straightforward. However, as pointed out at in section H~~the beginning of this part~~, this is far from being the case and national perceptions of exactly what is covered by social security vary considerably.

~~24.179~~24.194 There are two problems with simply suggesting that entitlements from social security should be shown in the SNA. The first is that reliable estimates of the entitlements may not be readily available whereas it is increasingly the case that such estimates exist for ~~private~~other social insurance pension schemes. Secondly, there is an argument that such estimates are of limited usefulness where government has the possibility of changing the basis on which entitlements are determined in order to keep the entitlements within the bounds of what is budgetarily feasible. However, the consequence of simply accepting that entitlements for ~~private~~other social insurance pension schemes are shown and for social security are not is that some countries would include the greater part of pension entitlements in the accounts and some would show almost none.

~~24.180~~24.195 In recognition of this dilemma, some flexibility regarding the recording of pension entitlements of unfunded pension schemes sponsored by government for all employees (whether private sector employees or government's own employees) is provided. Given the different institutional arrangements in countries, only some of these pension entitlements may be recorded within the ~~main~~ sequence of economic accounts ~~(here referred to as the "core accounts")~~. In addition, however, a further table is to be presented that provides information ~~disclosing the proportion of~~on pension provision covered in the ~~core~~sequence of economic accounts as well as pension provision covered by~~with some approximate estimates for~~ the remaining schemes. The aim of the supplementary table is to provide a full picture of countries' social insurance pension entitlements of resident and non-resident households, and related (constructive) liabilities of the pension providers. It is a requirement, though, that a set of criteria be provided to explain the distinction between those schemes carried forward to the ~~core~~sequence of economic accounts and those recorded only in the supplementary table.

24.196 The sort of criteria that might be considered are the following: Where a pension scheme provided by government or a public corporation in its role as an employer is clearly separated from social security pension schemes, ~~T~~the closer that the~~a government employer~~ pension scheme is to the prevailing pension arrangements provided by private employers, in the sense of being derived from an employer-employee relationship with similar terms and conditions of compensation, both current compensation and future compensation after retirement~~social security scheme~~, the ~~less~~more likely it is to appear in the ~~core~~sequence of economic accounts.~~;~~ Furthermore, the less the benefits are tailored to the specific characteristics of the individual and the more they are applicable to the population at large, the less likely it is to appear in the ~~core~~sequence of economic accounts.~~; the greater~~ Also the ability of government to alter the benefit formula~~,~~ would make it ~~the~~ less likely that the entitlements~~it is to~~ would be recognised~~appear~~ in the ~~core~~sequence of economic accounts. However, none of these criteria alone is necessarily decisive in determining whether the scheme is treated in the core accounts or not.

~~24.181~~24.197 By making this supplementary table and annotation a standard requirement for international reporting, analysts have the possibility of ensuring that cross country comparisons are not unduly clouded by the institutional variations from country to country. ~~Further work on refining the criteria for the distinction between the pension schemes fully recorded in the core accounts and those where the entitlements are shown only in the supplementary table is to be part of the SNA research agenda.~~

~~24.182~~24.198 The supplementary table is shown in table ~~17~~24.10. As well as the possibility of including less robust estimates for countries with large social security sectors, the possibility will also exist of working back to a narrower coverage of private pensions for all countries being analysed.

Table ~~17~~24.10: A supplementary table on social insurance pension schemes~~showing the extent of pension schemes included and excluded from the SNA sequence of accounts~~

~~24.183~~24.199 As noted above, providing detail on defined contribution schemes is relatively straightforward since full accounts must be available and no actuarial estimation is involved. Most of these are in the corporations sectors (column A) but it is possible that some government employees may be covered by them (column D). All defined contribution pension schemes should be included in the ~~core~~sequence of economic accounts. Estimates for all defined benefit pension schemes outside social security should also be included (column B).

~~24.184~~24.200 Government schemes for their own employees where separate accounting information, distinct from social security, is shown in the ~~main~~sequence of economic accounts appear in columns E and F. Column E shows schemes administered~~managed~~ by an insurance corporation, or a separate institutional unit, and column F those administered~~managed~~ by government itself. Any government schemes for their own employees distinct from social security ~~that~~for which the pension entitlements do not appear in the ~~main~~sequence of economic accounts, are shown in column G. The sum of columns E, F and G therefore show the total responsibility of government for pension provision for their own employees. (Column F shows that part of all defined benefit schemes of government that are retained within the government accounts as distinct from being moved into separate units or administered~~managed~~ for government by another institutional unit. Column H relates to social security schemes. Column C shows the total of all non-government schemes and column I the total of all schemes including social security.

~~24.185~~24.201 For the most part, the beneficiaries of pension schemes are likely to be resident households. In some countries, though, the number of non-resident households receiving pension benefits may be significant. In this case, column J should be added indicating the amount of the total that concerns non-resident households.

~~24.186~~24.202 Some of the entries in the rows of columns G and H, specifically the actual contributions made by both employers and employees and benefits received, appear in the ~~core~~sequence of economic accounts, even though the entitlements and change in entitlements do not. Other entries in the columns for G and H are only shown~~ only~~ in the supplementary table. These are shaded in the table indicating that these entries do not appear in the sequence of economic accounts, and explained below.

~~24.187~~24.203 The imputed contribution by employers for those government schemes for which entitlements appear in column G but not in the ~~core~~sequence of economic accounts requires special consideration. In the ~~core~~sequence of economic accounts, this item is calculated, by convention, as equal to the difference between current benefits payable and actual contributions payable (by both employees and employers). In the supplementary table, this is replaced by the amount needed to ensure the total contributions, actual and imputed, by both employers and employees, covers both the increase in pension entitlements from current service and the costs of operating the scheme. Therefore, the imputed employer contributions row is measured as a balancing item: it captures any changes in entitlements over the year not included in other rows of the table.

~~24.188~~24.204 An item calculated on the same basis in respect of social security (column H) is shown in row 3 as “other (actuarial) accumulation of pension entitlements in social security funds”. The distinction from employers’ imputed social contributions is deliberate and is intended to emphasize the probable fragility of these estimates.

24.205 Items for household social contribution supplements and the other changes in entitlements are shown on the same bases as for ~~private~~defined benefit schemes as recorded in the sequence of economic accounts; see paragraphs 24.157 to 24.169.

~~24.189~~24.206 Changes in pension entitlements due to transfers of entitlements between schemes are recorded as transactions in the supplementary table (as in the sequence of economic accounts).

~~24.190~~24.207 Changes in pension entitlements are recorded as transactions, more specifically capital transfers (in relevant cases to be routed via the pension fund involved), as follows~~in the following cases~~:

a. If the pension scheme is included in the ~~core~~sequence of economic accounts, and the employer manager agrees a change in the terms of pension entitlements via negotiation with the affected employees, this change should be recorded as a transaction in the ~~core~~sequence of economic accounts.

b. If the pension scheme is not recorded in the ~~core~~sequence of economic accounts, and the employer manager agrees a change in the terms of pension entitlements via negotiation with the affected employees, this change should be recorded as a transaction in the supplementary table.

c. In the case of social security, if changes in entitlements are agreed in parliament, this is also recorded as if it is negotiated in the supplementary table.

~~24.191~~24.208 Changes in pension entitlements that are imposed without negotiation are recorded as other changes in the volume of assets

24.209 The difference in the type of recording is one of principle but it is recognized that the distinction between what is negotiated and what is imposed without negotiation will be difficult to determine in practice with different situations prevailing in different countries.

~~24.192~~24.210 In addition to having a supplementary table on social insurance pension schemes, it could be considered to compile a supplementary table on household retirement resources. Such a table would focus on resident households. Moreover, it would not only include entitlements related to social insurance, both the ones recognised and the ones not recognised in the sequence of economic accounts, but could also include other types of retirement products, such as saving accounts with or without special fiscal arrangements. It could also be extended with the value of dwellings or other accumulated wealth items, which are often used to compensate for the drop in income after retirement. The development of such a table has been put on the research agenda of the 2025 SNA, as the table would need further elaboration, especially in relation to arriving at a table which can provide adequate international comparisons.