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REGULATION

OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL

ON THE EUROPEAN SYSTEM OF NATIONAL AND REGIONAL ACCOUNTS

IN THE EUROPEAN UNION

(ESA 2010) - (ANNEX A - CHAPTER 16)

CHAPTER 16
INSURANCE

INTRODUCTION

16.01 Insurance is an activity whereby institutional units or groups of units protect themselves against the negative financial consequences of specific uncertain events. Two types of insurance can be distinguished: social insurance and other insurance.

16.02 Social insurance is a scheme that covers social risks and needs. It is often organised collectively for a group; participation in the scheme is generally obligatory or encouraged by a third party. Social insurance comprises: social security schemes imposed, controlled and financed by the government; and employment-related schemes provided or operated by employers on behalf of their employees. Social insurance is described in Chapter 17.

16.03 Insurance other than social insurance covers against events such as death, survival in life, fire, natural disasters, flooding, car accidents, etc. Insuring against death and survival in life is known as life insurance, and insuring against all other events is known as non-life insurance.

16.04 This Chapter is concerned with life and non-life insurance. It describes how insurance activities are recorded in the accounts.

16.05 The rights and obligations of insurance are defined by an insurance policy. The policy is an agreement between an insurer and another institutional unit, called the policyholder. Under the agreement, the policyholder makes a payment called a premium to the insurer and when a specified event occurs, the insurer makes a payment called a claim to the policyholder or a nominated person. In this way, the policyholder protects against certain forms of risk; by pooling the risks the insurer aims to receive more from the receipt of premiums than it has to pay out as claims.

16.06 The insurance policy defines the roles of the parties involved, which are as follows:

(a) the insurer providing cover;

(b) the policyholder responsible for paying premiums;

(c) the beneficiary who receives compensation;

(d) the insured person or object that is subject to the risk.

In practice, the policyholder, the beneficiary and the insured can be the same person. The policy lists those roles and specifies the person corresponding to each role.

16.07 The most common form of insurance is called direct insurance, where institutional units insure themselves with an insurer against the financial consequences of specific risks. But direct insurers may in turn insure themselves, by insuring part of the directly insured risks with other insurers. This is called reinsurance, and the providers of this are called reinsurers.

Direct insurance

16.08 There are two types of direct insurance: life insurance and non-life insurance.

16.09 *Definition*: life insurance is an activity whereby a policyholder makes regular payments to an insurer in return for which the insurer guarantees to provide the beneficiary with an agreed sum, or an annuity, at a given date or earlier if the insured person dies beforehand. A life policy can grant benefits arising from a series of risks. For example, an old-age life insurance policy can grant a benefit when the insured becomes 65 years of age and, after the death of the insured, can grant a benefit to the surviving spouse until his death.

16.10 Life insurance also covers supplementary insurance against personal injury including incapacity for employment, insurance against death resulting from an accident and insurance against disability resulting from an accident or sickness.

16.11 Some classes of life insurance provide compensation in case the insured event occurs, e.g. insurance that is linked to a mortgage loan and only pays a benefit to redeem the mortgage if the income earner dies before maturity of the corresponding loan. Most of such classes contain a significant savings element combined with an element of risk coverage. Given the large savings element, life insurance is seen as a form of saving, and the corresponding transactions are recorded in the financial account.

16.12 *Definition*: non-life insurance is an activity whereby a policyholder makes regular payments to an insurer in return for which the insurer guarantees to provide the beneficiary with an agreed sum on the occurrence of an event other than the death of a person. Examples of such events are: accidents, sickness, fire, etc. Accident insurance that covers life related risks is classified as non-life insurance in most European countries.

16.13 A life 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 in the national accounts as non-life insurance because a claim is payable only if a specified contingency occurs and not otherwise. In practice, because of the way in which insurance units keep their accounts, it may not always be possible to separate term insurance from life insurance. In such circumstances, term insurance can be treated in the same way as life insurance.

16.14 Life and non-life insurance both involve spreading risk. Insurers usually receive small regular payments of premiums from policyholders and pay larger sums to claimants when the events covered by the policy occur. For non-life insurance, the risks are spread over the whole population that takes out the insurance policies. An insurer determines the premiums charged for providing an insurance service in a year according to the amount of claims it expects to pay 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 insurer 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 insurer. 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 is a form of saving. The insurer must combine this aspect of a policy with the actuarial calculations about the insured population concerning life expectancy, including the risk 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 insurer earns income from investing a part of the premiums received. This income also affects the levels of premiums and benefits set by the insurers.

16.15 There are significant differences between life and non-life insurance that lead to different types of entries in the accounts. 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.

Reinsurance

16.16 *Definition*: an insurer may protect against an unexpectedly large number of claims, or exceptionally heavy claims, by taking out a reinsurance policy with a reinsurer. Reinsurance corporations are concentrated in a limited number of financial centres, and so many of the reinsurance flows are transactions with the rest of the world. It is common for reinsurers to take out reinsurance policies with other reinsurers to spread their risks further. This extended reinsurance is called retrocession.

16.17 Limitation of risks can also be achieved when a group of insurers called underwriters jointly accept the risks associated with a single policy. Each individual insurer is only responsible for its own share of the policy, receives the corresponding share of the premium and pays the same share in the case of a claim or benefit paid. Management of the policy is either by the lead-manager or by the insurance broker. Lloyds of London is an example of an insurance market where direct and indirect risks are spread over a large number of underwriters.

16.18 Various options exist with the direct insurer to organise indirect coverage against the risks the insurer has accepted. The following classes of reinsurance are distinguished:

(a) proportionate reinsurance where the policyholder cedes to a reinsurer an agreed percentage of all risks, or of all risks of a specified portfolio of direct insurance policies. This means that the direct insurer transfers the corresponding percentage of the premiums to the reinsurer who then meets the same proportion of the claims when it incurs. In such cases, any reinsurance commission paid by the reinsurer to the policyholder is treated as a reduction in reinsurance premiums written;

(b) non-proportionate reinsurance known as excess of loss reinsurance, where the reinsurer is only at risk if the amount of the direct claim exceeds an agreed threshold. If there are no or few direct claims above the threshold, the reinsurer may pass a share of its profits to the direct insurer. Profit sharing is treated in the accounts as current transfer from the reinsurer to the direct insurer, in a similar way to the payment of claims.

The units involved

16.19 The institutional units involved in direct insurance and reinsurance are pre-eminently insurers. 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, and so a separate institutional unit, classified to the insurance corporations (S.128) and pension funds (S.129) subsectors, is identifiable. Government may conduct other insurance activities, but again it is likely that a separate unit can be identified. Having noted that other sectors may be involved, in what follows it is assumed that insurers, either resident or non-resident, carry out all insurance.

16.20 Units that are primarily engaged in activities closely related to insurance, but do not themselves incur risks, are insurance auxiliaries. Such units are classified within the financial auxiliaries subsector (S.126) and include for example the following:

(a) insurance brokers;

(b) private non-profit institutions serving insurance enterprises and pension funds;

(c) units whose main activity is to act as supervisory authorities of insurance enterprises, pension funds and of insurance markets.

OUTPUT OF DIRECT INSURANCE

16.21 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 insurance company sets the level of the premiums to be such that the sum of the 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. The output of the insurance industry is measured reflecting the premium setting policies of the insurers. To that end, four separate items need to be defined. These are

(a) premiums earned;

(b) premium supplements;

(c) claims incurred, or benefits due;

(d) insurance technical 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.

Premiums earned

16.22 *Definition*: premiums earned are the proportion of premiums written that have been earned during the accounting period. Premiums written cover the period contracted in the insurance policy. The difference between premiums written and premiums earned are amounts set aside, and included in the reserves for unearned premium. Such amounts are treated as assets of the policyholders. The concept of premium earned in insurance accounting is consistent with the accruals recording principle of national accounts.

16.23 The insurance premium is either a regular premium payable monthly or yearly, or a single premium paid usually at the start of the insured period. Single premiums are usual for the insurance of risks associated with large events, such as the construction of large buildings or equipments and the road, train, sea- or air transport of goods.

16.24 The premiums earned in the year in question take the following form:

premiums written

plus the reserves for unearned premiums at the beginning of the accounting year

less the reserves for unearned premiums at the end of the accounting year.

Or presented differently, it takes the form of:

premiums written

less the change (less increase or plus decrease) in the reserves for premiums unearned.

16.25 The reserves for unearned premiums and other reserves are included within non-life insurance technical reserves (AF.61) and life insurance technical reserves (AF.62). A description of insurance technical reserves is given in paragraphs 16.43 to 16.45.

16.26 Policyholders often have to pay a dedicated tax on payment of the insurance premium. Life insurance premiums are excluded from this insurance tax in many countries. As the insurers have to transfer this tax to government, the relevant amounts do not enter the annual accounts of insurers. Only a relatively small amount — the residual amount concerning the year that still has to be transferred to government — could enter the insurers' balance sheet under trade credit. The tax payments are not recorded as such in the accounts of insurers. Such a tax is treated as a tax on products in national accounts. Policyholders are assumed to pay such amounts directly into the tax authorities' accounts.

Premium supplements

16.27 *Definition*: premiums supplements are the income earned from the investment of the insurance technical reserves of the insurers, which represent liabilities towards the policyholders.

16.28 For life insurance in particular, but also to a lesser extent for non-life insurance, the total amount of benefits due or claims incurred in a given period often exceeds the premiums earned. Premiums are usually paid regularly, often at the start of an insurance period, whereas claims are incurred later, and in the case of life insurance benefits are often due 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 insurer to invest and earn income from it. Such amounts are called insurance technical reserves. The income earned on the reserves allows the insurers to charge lower premiums than would be the case otherwise. The measure of the service provided takes account of the size of this income as well as the relative size of premiums and claims.

16.29 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 insurer 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 insurer described as unearned premiums. Similarly, although claims become due for payment by the insurer when the contingency specified in the policy happens, they may not be paid 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.

16.30 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. The reserves are generally invested in financial assets and the income is in the form of investment income. They may be used to fund economic activity such as real estate, to generate a net operating surplus either in a separate establishment or as a secondary activity.

16.31 All investment income attributed to policyholders is shown as payable to the policyholders in the primary distribution of income account. For non-life insurance, the same amount is then repaid to the insurer as premium supplements in the secondary distribution of income account. For life insurance, the premiums and premium supplements are shown in the financial account.

Adjusted claims incurred and benefits due

16.32 *Definition*: claims incurred and benefits due are the financial obligations of the insurers with respect to the beneficiary concerning the risks that the event realises in the period in question as defined by the policy.

16.33 The concept of claims incurred in non-life insurance and benefits due in life insurance is consistent with the accruals basis of measurement in national accounts.

Non-life insurance adjusted claims incurred

16.34 Claims can be distinguished between claims paid and claims incurred. Claims incurred refer to the amounts due from insured risks that have been realised in the year. Whether the policyholder has reported the corresponding event is irrelevant. Part of the claims will be paid in the next year or even later. On the other hand claims that are the effect of events that have occurred in previous years are paid in the current year. The unpaid part of the claims incurred is added to the reserve for claims outstanding.

16.35 Non-life insurance claims incurred in the calendar year take the following form:

claims paid

less the reserve for claims outstanding at the beginning of the accounting year

plus the reserve for claims outstanding at the end of the accounting year.

Or presented differently, they take the form of:

claims paid

plus the change (plus increase or less decrease) in the reserves for claims outstanding.

16.36 Any claims-related costs undertaken by the insurer, either external or internal, are not included in claims incurred. Such costs may consist of: costs of acquisition, policy management, investment management, and claims handling. Some costs might not be separately identifiable in the accounting source data. The external costs include expenditure for works that the insurer commissioned to another unit, thus recorded in the accounts as intermediate consumption. The internal costs include expenditure for works performed by the insurers' own employees, thus recorded in the accounts as labour costs.

16.37 In the event of catastrophes, the losses incurred shall not affect the value of claims. The catastrophic losses shall be recorded as a capital transfer from the insurer to the policyholder. The advantage of such recording is that the disposable income of the policyholder does not increase counter-intuitively as would be the case if the claims were recorded otherwise (see paragraphs 16.92 and 16.93).

16.38 The production of insurance services is a continuous process, not just when the risk occurs. However, the level of claims incurred by policyholders of non-life insurance varies from year to year and there may be events that cause a particularly high level of claims. Neither the volume nor the price of insurance services is directly affected by the volatility of claims. Insurers set the level of premiums on the basis of their own estimation of the likelihood of claims incurring. For this reason, the formula used for the calculation of output uses adjusted claims incurred, which is an estimate corrected for volatility in claims.

16.39 The estimate for adjusted claims incurred 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 such claims that is met under the terms of the direct insurer's reinsurance policy. For example, when the direct insurer has an excess of loss reinsurance, known as non-proportionate reinsurance, it sets the level of premiums to cover losses up to the maximum loss covered by its reinsurance policy plus the reinsurance premium it must pay. Under a proportionate reinsurance policy, it sets its premiums to cover the proportion of claims it has to pay plus the reinsurance premium.

16.40 An alternative method of adjusting claims incurred for volatility is to use accounting data on change in own funds and in equalisation reserves. The equalisation reserves are amounts that insurers set aside in compliance with legal or administrative requirements to cover irregular or unforeseeable large claims in the future. Such amounts are included within non-life insurance technical reserves (AF.61).

Life insurance benefits due

16.41 Life insurance benefits due 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.

16.42 Any benefits-related costs shall not be included within the benefits due, but recorded as intermediate consumption and labour costs.

Insurance technical reserves

16.43 *Definition*: insurance technical reserves are the amounts that insurers set aside. The reserves are assets to the policyholders and liabilities to the insurers. The technical reserves can be distinguished between non-life and life insurance and annuities.

16.44 In accordance with Council Directive 91/674/EEC[1], seven types of technical reserves are distinguished. In each case the amount gross of reinsurance, the amount ceded to reinsurers and the net amount are shown in the balance sheet. The seven categories are as follows:

(a) reserve for unearned premiums — the difference between written premiums and earned premiums. This reserve can, depending on the national legislation, include a separate element relating to unexpired risks;

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[1] Council Directive 91/674/EEC of 19 December 1991 on the annual accounts and consolidated accounts of insurance undertakings (OJ L 374, 31.12.1991, p. 7).

(b) reserves for life insurance — such reserves reflect the present value of the expected future benefits (including but not confined to declared bonuses) less the present value of future premiums. Supervisory authorities may set a ceiling to the discount rate used in the calculation of present value;

(c) reserve for claims outstanding — the difference between incurred and paid claims. It equals the total estimated ultimate cost to an insurance undertaking of settling all claims arising from events which have occurred up to the end of the financial year, whether reported or not, less amounts already paid in respect of such claims;

(d) reserve for bonuses and rebates (unless shown within the category referred to in point (b) — comprising the amounts intended for policyholders or contract beneficiaries by way of bonuses and rebates, to the extent that such amounts have not already been credited to policyholders or contract beneficiaries;

(e) equalisation reserve comprises amounts set aside in compliance with legal or administrative requirements to equalise fluctuations in loss ratios in future years or to provide for special risks. National authorities may not permit this reserve;

(f) other technical reserves comprise, inter alia, the reserve for unexpired risks if not included within the category referred to in point (a). This item might also include ageing reserves taking into account the effect of ageing on the amount of claims, e.g. with health insurance;

(g) technical reserves for life insurance policies where the investment risk is borne by the policyholders. This item shall comprise technical reserves constituted to cover liabilities to policyholders in the context of life insurance policies where the value of the return is determined by reference to investments for which the policyholder bears the risk, or by reference to an index, as is the case with index-linked life insurance. This item shall also comprise the technical reserves concerning tontines.

16.45 When deriving the changes in the insurance technical reserves (F.61 and F.62) used in the calculations of output, realised and unrealised holding gains and losses are not included.

Defining insurance output

16.46 Insurers provide an insurance service for their clients, but do not charge explicitly for their service.

16.47 The insurer collects premiums and pays claims or benefits on the occurrence of an insured event. The claims or benefits compensate the beneficiary for the financial consequences of the insured event.

16.48 The insurance technical reserves are funds that insurers use to invest and to earn income. Such funds and the corresponding investment income (premium supplements) are a liability towards the beneficiaries.

16.49 This section describes the information needed to calculate the output for direct insurance and reinsurance services.

Non-life insurance

16.50 The output of the insurer is the service provided to the beneficiaries.

16.51 If an expectations approach is being used, the formula to calculate output is:

premiums earned

plus premium supplements

minus adjusted claims incurred;

where adjusted claims incurred is corrected for the volatility in claims using historical data or accounting data on changes in the equalisation reserves and own funds. Premium supplements are less volatile than claims, and no adjustment for volatility is necessary. In estimating adjusted claims, information is broken down by product, for example motor insurance, buildings insurance, etc.

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'.

Life insurance

16.52 The output of direct life insurance is calculated separately as:

premiums earned

plus premium supplements

minus benefits due

minus increases (plus decreases) in technical reserves and with-profits insurance.

16.53 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, is to be used. As for non-life insurance, an allowance for normal profits is included.

16.54 In the calculation of output, holding gains and losses must not be included.

Reinsurance

16.55 The formula to calculate the output of reinsurance services is analogous to that 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.

16.56 The output of reinsurance is measured in the same way as the output of direct non-life insurance. However, there are some payments peculiar to reinsurance. Such payments 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 is calculated as:

premiums earned *less* commissions payable

plus premium supplements

minus both adjusted claims incurred and profit sharing.

TRANSACTIONS ASSOCIATED WITH NON-LIFE INSURANCE

16.57 This section describes the set of entries recording the implications of a non-life insurance policy. Policies may be taken out by businesses, households as individuals 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 Chapter 17.

Allocation of insurance output among users

16.58 The output of non-life insurers is described in paragraph 16.51. The value of the output of insurers is recorded as a use as follows:

(a) intermediate consumption of businesses, including the following sectors: non-financial corporations (S.11), financial corporations (S.12), general government (S.13), households as employers (S.141) and own-account workers (S.142), or non-profit institutions serving households (S.15);

(b) final consumption expenditure of households as individuals (S.143 and S.144); or

(c) exports to non-resident policyholders (S.2).

16.59 The value of output is allocated to users according to the type of insurance.

16.60 Alternatively, the value of output is allocated as uses to policyholders in proportion to their actual premiums payable.

16.61 The allocation of output to intermediate consumption is broken down by industry.

Insurance services provided to and from the rest of the world

16.62 Resident insurers may provide insurance cover to households and businesses in the rest of the world, and resident households and businesses may purchase cover from insurers in the rest of the world. The investment income attributed by resident insurers to policyholders includes an allocation to policyholders in the rest of the world. Such non-resident policyholders then also pay premium supplements to the resident insurer.

16.63 Similar considerations also apply to the treatment of resident businesses and households taking out policies with non-resident insurers. Resident policy holders receive imputed investment income from abroad and pay premiums and supplements to abroad. Estimation of the size of such flows is difficult, especially when there is no resident insurer against which to make comparisons. Counterpart data may be used to make estimates for the national economy. The level of transactions by residents has to be known and the ratio of premium supplements to actual premiums in the economy providing the services can be used to estimate the investment income receivable and premium supplements payable.

The accounting entries

16.64 Altogether six pairs of transactions are 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 distribution and one in the financial account. Under exceptional circumstances, a seventh transaction relating to distribution 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 non-life insurance in the manner described below.

16.65 The production and consumption transactions are as follows:

(a) since all such activity by resident institutional units is undertaken by insurers, the output (P.1) is recorded in the production account of insurers;

(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 insurers. Payments by business constitute intermediate consumption (P.2), recorded in their production account. Insurance payments by households as individuals are final consumption expenditure (P.3), recorded in the use of income account. Payments by the rest of the world are recorded as exports of services (P.62) in the external account of goods and services.

16.66 The distributive transactions are investment income attributed to policyholders in respect of non-life insurance, net non-life insurance premiums, and insurance claims:

(a) investment income from investing non-life insurance technical reserves is attributed to policyholders (D.441). Thus it is recorded as payable by insurers and as receivable by all sectors and the rest of the world. The investment income shall be allocated among policyholders in proportion of their non-life technical reserves, or alternatively in proportion to the actual premium written (payable). Both payables and receivables are recorded in the allocation of primary income account;

(b) net non-life direct insurance premiums (D.711) are the amounts of premiums and investment income used to finance expenditures of the insurers. Such premiums are calculated as premiums earned plus premium supplements less the output value of the insurers. Those net premiums are recorded as payable by all sectors of the economy or the rest of the world and as receivable by insurers. The allocation of net premiums between sectors is carried out according to the allocation of the output;

(c) non-life direct insurance claims (D.721) are amounts in respect of which insurers become liable to the policyholder when an event occurs. The insurance claims are recorded as receivable by all sectors of the economy and the rest of the world and as payable by the insurers. Both net premiums and claims are recorded in the secondary distribution of income account. Some claims arise because of damage or injuries that the policyholder causes to the property or persons of third parties. In such cases, valid claims are recorded as directly payable by the insurer to the injured parties and not indirectly via the policyholder;

(d) claims arising from catastrophic losses are other capital transfers (D.99) rather than current transfers, and they are recorded in the capital account as payable to policyholders by insurers;

(e) the financial balance sheet records the non-life insurance technical reserves (AF.61). Such reserves are recorded as liabilities of insurers and assets of all sectors and the rest of the world. The reserves consist of prepayments of premiums and payments of claims. A breakdown of this category is not required, although both components are needed in the calculation of premiums earned and claims incurred.

16.67 An example of the accounting records for such flows is shown in Table 16.1.

Table 16.1 Non-life insurance

Uses: Total	Uses: Corresponding entries of the Goods and services account	Uses: Corresponding entries of the Rest of the world account	Uses: S.1 Total economy	Uses: S.15 NPISHs	Uses: S.14 Households	Uses: S.13 General government	Uses: S.12 Financial corporations	Uses: S.11 Non-financial corporations		Transactions and balancing items	Resources: S.11 Non-financial corporations	Resources: S.12 Financial corporations	Resources: S.13 General government	Resources: S.14 Households	Resources: S.15 NPISHs	Resources: S.1 Total economy	Resources: Corresponding entries of the Rest of the world account	Resources: Corresponding entries of the Goods and services account	Resources: Total
										External account									
0		0							P.62	Exports in services								0	0
0	0								P.72	Imports in services							0		0
										Production account									
6	6								P.1	Output		6				6			6
4		0	4	0	3	0	0	1	P.2	Intermediate consumption								4	4
										Distribution of primary income account									
6			6				6		D.441	Property income attributable to insurance policy holders	5	0	0	1	0	6	0		6
										Secondary distribution of income account									
44		1	43	0	31	4	0	8	D.711	Net non-life insurance premiums		44				44			44
45		0	45				45		D.721	Non-life insurance claims	6	0	1	35	0	42	3		45
										Use of disposable income account									
2			2		2				P.3	Final consumption expenditure								2	2
										Financial balance sheet (opening)									
74		0	74	0	40	0	9	25	AF.61	Non-life insurance technical reserves		74				74			74
										Financial balance sheet (closing)									
81		0	81	0	44	0	11	26	AF.61	Non-life insurance technical reserves		81				81			81
										Financial transation									
7		0	7	0	4	0	2	1	F.61	Non-life insurance technical reserves		7				7			7
										Revaluation account									
0		0	0	0	0	0	0	0	AF.61	Non-life insurance technical reserves		0				0			0

TRANSACTIONS OF LIFE INSURANCE

16.68 This section describes how records for life insurance differ from non-life insurance records. For a life insurance policy the benefits from the policy are treated as changes in wealth, recorded in the financial account. For a policy qualifying as social insurance, the benefits in the form of pensions are recorded as income in the secondary distribution of income account. The reason for the different treatment is that a 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 reserve for income in retirement. Social insurance is described in Chapter 17.

16.69 The holder of a life insurance policy is an individual classified within the households sector (S.143 or S.144). If a company takes out an insurance policy on the life of an employee, this is term insurance and not life insurance. Life insurance transactions therefore take place only between insurers (classified within the insurance corporations subsector — S.128) and resident households as individuals (S.143 and S.144), unless exported to non-resident households (classified within the rest of the world sector — S.2). The output value of life insurance is matched by the value of the households' final consumption expenditures and exports in services, following the same approach as for non-life insurance. 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 annuities entitlements.

16.70 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 policy holders and one pair shows the change in life insurance and annuities entitlements:

(a) the output (P.1) of the life insurance is recorded in the production account for the insurers;

(b) the value of the services consumed is recorded as final consumption expenditure (P.3) by households in the use of disposable income account or as payable by the rest of the world, treated as exports of services (P.62) to non-resident households. Payments by households to non-resident insurers are imports of services (P.72);

(c) investment income earned from investing life insurance technical reserves attributed to policyholders (D.441) is recorded in the allocation of primary 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 insurers and receivable by resident households or non-resident households in the rest of the world. The investment income shall be allocated among policyholders in proportion to their life technical reserves, or, if that information is not available, in proportion to the premiums written;

(d) the financial balance sheet holds entries for life insurance technical reserves and annuity entitlements (AF.62). Such reserves are recorded as liabilities of insurers and assets of households and the rest of the world. These amounts reflect the savings character of life insurance policies. This includes the prepayment of premiums and the payment of benefits. A breakdown of this category is not required, although both components are needed in the calculation of premiums earned and benefits due.

16.71 Life insurance technical reserves and annuities entitlements reflect policies that yield a lump sum at a given date. The lump sum may be used to purchase an annuity that itself converts a lump sum into a stream of payments. The conditional entitlements of the individual policyholders — the amount receivable at or after maturity as a lump sum payment or an annuity — do not aggregate to the value of the insurer's obligations. The difference is derived from the conditionality and the present value calculation. The amount to be reported under life insurance and annuity entitlements' is defined according to the insurers' accounting principles.

16.72 An example of such flows is shown in Table 16.2.

Table 16.2 Life insurance

Uses or assets: Total	Uses: Corresponding entries of the Goods and services account	Uses: Corresponding entries of the Rest of the world account	Uses: S.1 Total economy	Uses: S.15 NPISHs	Uses: S.14 Households	Uses: S.13 General government	Uses: S.12 Financial corporations	Uses: S.11 Non-financial corporations		Transactions and balancing items	Resources or liabilities: S.11 Non-financial corporations	Resources: S.12 Financial corporations	Resources: S.13 General government	Resources: S.14 Households	Resources: S.15 NPISHs	Resources: S.1 Total economy	Resources: Corresponding entries of the Rest of the world account	Resources: Corresponding entries of the Goods and services account	Resources: Total
										External account									
0		0							P.62	Exports in services								0	0
0	0								P.72	Imports in services							0		0
										Production account									
4	4								P.1	Output		4				4			4
										Distribution of primary income account									
7			7				7		D.441	Property income attributable to insurance policyholders				7		7	0		7
										Use of disposable income account									
4		0	4		4				P.3	Final consumption expenditure								4	4
										Financial balance sheet (opening)									
221		0	221		221				AF.62	Life insurance technical reserves		221				221			221
										Financial balance sheet (closing)									
243		0	243		243				AF.62	Life insurance technical reserves		243				243			243
										Financial transation									
22		0	22		22				F.62	Life insurance technical reserves		22				22			22
										Revaluation account									
0		0	0		0				AF.62	Life insurance technical reserves		0				0			0

TRANSACTIONS ASSOCIATED WITH REINSURANCE

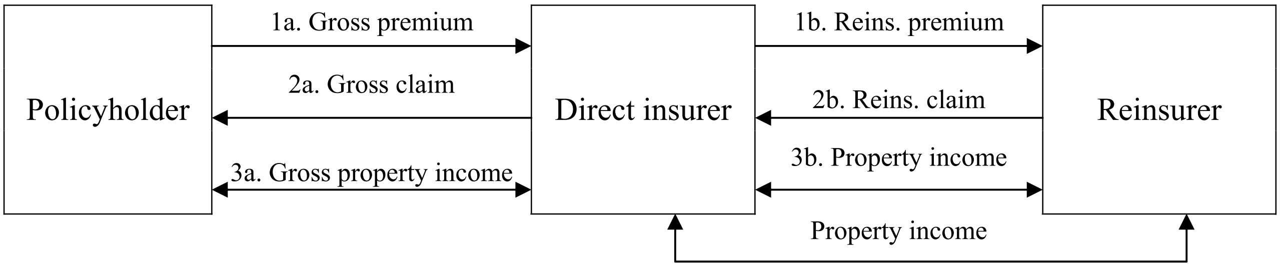
16.73 Accounts of reinsurers are largely the same as the accounts of direct insurers. The only difference is that direct insurance transactions with policyholders who are not themselves providers of insurance are replaced by insurance transactions between reinsurers and direct insurers.

16.74 Insurance transactions are recorded gross of reinsurance. Premiums are first payable to the direct insurer who may then pay a proportion of the premium to the reinsurer (cession), who might then pay a smaller amount to another reinsurer, and so on (retrocession). Analogously, the same applies to claims or benefits. The gross treatment is in line with the original policyholder's point of view. This policyholder normally is not aware of any amount ceded by the direct insurer to a reinsurer and, should the reinsurer go bankrupt, the direct insurer remains liable to pay the full amount of the claims on ceded risks.

16.75 The output of direct insurance is calculated gross of reinsurance. The alternative calculation net of reinsurance would be to show part of the direct policyholders' premiums being paid to the direct insurer and part to the reinsurer, but this way of recording, called 'net recording', is not allowed.

Chart 1 below illustrates this process.

Chart 1 — Flows between policyholders, direct and indirect insurers



16.76 Chart 1 summarises the following flows:

1 the policyholder makes the payment of the premium gross of reinsurance to the direct insurer (1a), of which the reinsurance part of the gross premium is ceded to the reinsurer (1b);

2 similarly, the payment of claim is recorded, but in the opposite direction. The claim is paid by the reinsurer to the direct insurer (2b). The direct insurer adds to this amount its own claim paid further to the policyholder (2a);

3 both the direct insurer and the reinsurer earned property income from investing their technical reserves. Property income is transferred by the reinsurer to the direct insurer (3b) who then adds this amount to its own property income earned and further distributes to the policyholder (3a).

16.77 All gross flows between the policyholder and the direct insurer include the corresponding amounts of the flows between the direct insurer and the reinsurer; for this reason these arrows are shown as being thicker in the chart.

16.78 As with direct insurance, for example following a catastrophic disaster, part of reinsurance claims are recorded as capital transfers rather than as current transfers.

16.79 The whole of the output of the reinsurer is intermediate consumption of the direct insurer holding the reinsurance policy. As noted above, many reinsurance policies are between insurers resident in different economies. Thus, the value of the output in such cases represents imports by the insurer taking out the reinsurance policy and exports by the reinsurer.

16.80 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 insurer.

16.81 The production and consumption transactions are as follows:

(a) the output (P.1) is recorded in the production account of reinsurers. Reinsurance services are often provided by non-resident reinsurers and in such cases are recorded as imports of services (P.72);

(b) the service of the reinsurer can only be consumed by a direct insurer or another reinsurer. If the policyholder is resident, the use of the reinsurance service is recorded as intermediate consumption (P.2) of the policyholder unit. Where the policyholder is non-resident, the use is recorded as exports of services (P.62).

16.82 The distributive transactions cover investment income attributed to policyholders in respect of reinsurance, net reinsurance premiums and reinsurance claims:

(a) investment income (D.441) earned by reinsurers from investing reinsurance technical reserves is payable to policyholders who can be direct insurers or reinsurers. Both reinsurance and direct insurers may be resident or non-resident;

(b) net non-life reinsurance premiums (D.712) are payable by policyholders and receivable by reinsurers. Either of the units due to make the payment or to receive it may be non-resident;

(c) non-life reinsurance claims (D.722) are payable by reinsurers and receivable by policyholders, either resident or non-resident. Both net premiums and claims are recorded in the secondary distribution of income account;

(d) the financial balance sheet holds records reflecting the reinsurance technical reserves (under AF.61, 'non-life insurance technical reserves'). Such reserves are recorded as liabilities of reinsurers and assets of policyholders. Such policyholders can be direct insurers or reinsurers.

16.83 Commissions payable by reinsurers to the insurer as the reinsurance policyholder are treated as reductions in the premiums payable to the reinsurers. 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 reduce the output of the reinsurer.

16.84 If direct insurance claims are treated as capital and not current transfers, the reinsurance claims for the same event are also treated as other capital transfers (D.99).

TRANSACTIONS ASSOCIATED WITH INSURANCE AUXILIARIES

16.85 The output of auxiliary insurance services is valued on the basis of the fees or commissions charged. In the case of non-profit institutions operating as business associations for insurance enterprises and pension funds, their output is valued by the amounts of subscriptions paid by the members of the associations. This output is used as intermediate consumption by the members of the associations.

ANNUITIES

16.86 The simplest case of a life insurance policy is one where a stream of payments is made by the policyholder to the insurer 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 insurer and in return receives a stream of payments either for a nominated period or for the rest of the annuitant's life, or for the rest of the life of both the annuitant and a nominated other person.

16.87 Annuities are organised by insurers 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 a single payment. The insurer takes the risk of making more from investing the single payment than is paid to the annuitant as a payment stream. Life expectancy is taken into account in determining the stream of payments.

16.88 When an annuity is initiated, there is a transfer of funds from the household to the insurer. In many cases, however, this may simply be a 'rollover' from a lump sum payable by that or another insurer 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 reserves in the insurer 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 insurer. The household makes a payment to the insurer and receives in return an asset arising from the terms of the annuity. The insurer receives a financial asset from the household and incurs a liability towards it.

16.89 Annuities are terminated by death, at which point any remaining reserves for that annuitant are transferred to the insurer. However, assuming the insurer 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 insurer as a service charge, possibly making this negative. In such a case, the insurer will have to draw on its own funds and hope to build them up again in future by associating higher service charges with new annuities.

RECORDING NON-LIFE INSURANCE CLAIMS

Treatment of adjusted claims

16.90 The time of recording claims incurred is generally when the related event occurs. 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 recognised only long after the event has happened. For example, an important series of claims were recognised 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.

16.91 Given that the formula for output uses adjusted claims and not actual claims, only when the actual claims happen to be the same values as expected claims will net premiums 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.

Treatment of catastrophic losses

16.92 Claims are recorded as current transfers payable by the insurer to the policyholder. There is one case where claims are recorded as other capital transfers (D.99) rather than current transfers and that is in the wake of a major catastrophe. The criteria for when the effects of a disaster 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 assets such as dwellings, buildings and structures.

16.93 Following a catastrophe, the total value of the claims in excess of the premiums is recorded as a capital transfer from the insurer to the policyholder. Information on the level of claims to be met under insurance policies is 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.