A MODEL SURVEY FOR INSURANCE

VOORBURG GROUP CONFERENCE
OSLO, NORWAY
SEPTEMBER 27 TO OCTOBER 2, 1993

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Background

Insurers are engaged in the pooling of risk. Insured persons or businesses pay a premium to insurance carriers to perform this function. In addition, there is an associated function of providing annuities and managing pension funding. These activities involve investment of the policyholders funds.

Insurers may also engage in other activities such as sales and management of mutual funds. Of course they also make loans to policyholders.

To reduce the overall risk to any one business, it is common to reinsure, that is, to make an agreement with another insurer to spread the risk. The reinsurer receives a portion of the premium, pays a portion of the selling and claims costs, and invests and receives the investment income from the policy reserves. In some cases there is an agreement between the two parties to the reinsurance to share profits on their joint insurance activity. Policy reserves are set aside to pay future claims.

Generally a licence is required to undertake insurance business in a country. There are often two types of insurance licences - the first is life and annuity and the second is property and casualty. Either of these two categories could take the form of stock companies, which issue shares, or mutual companies in which the policyholders are the owners. In addition some companies are not separately incorporated in the country of operations but rather operate as branches of foreign insurers. These branches would be considered resident for purposes of measuring production that is, they would be included in the GDP of the country.

Usually it is necessary for and insurer to be licensed in each country in which it operates. However, there may be exceptions. For example, within the European Community, being licensed in one country permits the insurer to operate in other EC countries. At the present time most of the exports and imports of services are related to reinsurance. This could change in the case of an arrangement such as the EC. This would require the collection of different information in the model survey in order to measure GDP correctly within countries.

Conceptual Model and Data Requirements

Nominal Values

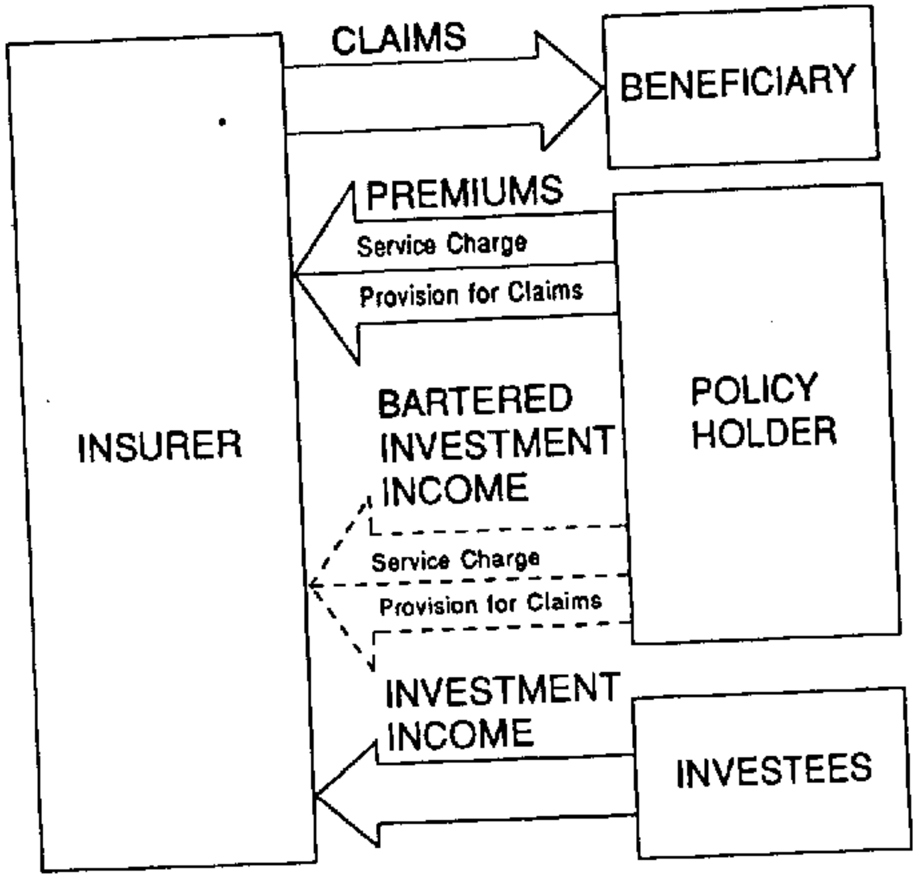
In the basic model, insurers receive revenue from two sources - premiums and investment income. This revenue consists of two components - a service charge for the insurance services and a transfer component to pay claims. The insured effectively barters the investment income for a lower rate of premium.

The gross output of the insurer consists of the following:

Premiums + Investment Income - Claims

Chart 1 illustrates the basic model and shows the various service and payment flows.

CHART 1



- Between the insurer and the beneficiary, there is a payment in respect of claims incurred in the current period.

- Between the insured and the insurer, there is a premium flow.

- Between the insurer and the insured there is a barter arrangement in which the insured barters the investment income on the reserves in order to reduce the premium level.

- These two flows in combination consist of two components - a payment for a service and a payment which is a provision for future claims associated with those income flows. The payment for future claims is a transfer to the insurer which will eventually be returned to the beneficiary in the form of a claim.

- Between the investee and the insurer is a flow of investment income. This investment income is a transfer between the investee and the insurer. The right to retain this transfer represents the barter arrangement with the insured.

There are several issues. First should investment income be included in revenue of the insurer. Secondly, which types of investment income should be included in revenue. Finally, how should net underwriting revenue be derived.

Inclusion of Investment Income in Output

The inclusion of investment income must be justified since the normal treatment in production statistics of investment income is that it is a transfer and not a payment for production.

Investment income has been included in the proposed model survey for a number of reasons.

1. Insurers state that they charge lower premiums because they receive investment income. This suggests a barter arrangement and that investment income should be included in revenue from production.

2. Without investment income non-life insurers and life insurers would be in a loss position.

3. The failure to recognize investment income for annuities would be absurd - look at the case of money purchase annuities where the payment is deferred. The value of the original premium would never cover the payments if investment income were not included.

   This can be also be demonstrated by considering the differences in products for life insurance and annuities. In simple terms there are two "pure" products which are combined differently into different commodities - a pure insurance product (variable premium term insurance) and a pure investment product (a single payment annuity with a guaranteed fixed payment at some future date). Most of the various products of life insurance and annuity companies can be considered to be combinations of these pure products.

The Definition of Claims

The issue is what definition of claims to deduct from revenue to determine service charges. To do this it is helpful to consider the three different major products - life insurance, annuities and property and casualty insurance - separately.

The practices of insurance companies in recording revenue is one factor in this decision. Only earned premiums are included in the revenue of the insurer. The earned premiums are calculated on the basis of the coverage period that is within the accounting period. This is consistent with the treatment in other industries where revenue would only include the revenue earned in the current period. Put differently, payments in respect of past or future coverage periods would not be included in revenue.

Property and casualty insurers calculate a net underwriting income which is premiums less claims. Property and casualty insurance contracts have a one year term. In calculating the net underwriting income, the insurer deducts an amount which is the sum of actual claims, unpaid reported claims and unreported claims related to the premiums earned in the period. Claims that are for previous accounting periods would not be deducted from current period's revenue in calculating net underwriting income.

The alternative to this treatment is to include claims in the period in which they are paid. However, this seems intuitively unappealing, since there could be a lengthy period between claims and the income from which the claims are paid. In the extreme, revenue could all be received in one period and claims paid in another. There would be a large positive service charge in the first period and a large negative service charge in the second.

For life insurance and annuities a large part of current periods income is for the payment of claims in future periods. Reserves for future claims amount to 20 times claims paid in the current period. Consequently a large part of the total amount set aside for claims is actually a transfer to reserves.

Rating Experience Refunds and Policy Dividends

In some kinds of insurance, the insured may receive a return of premiums, where the claim experience is lower than expected or where the investment income is higher than expected.

There are basically two different possible treatments of these flows. They could be treated as a transfer from the insurer to the policyholder - like dividends. Alternately they could be treated as a reduction of premium, although the amount is not known at the time that the premium is paid.

The proposed treatment is to reduce premiums by the amount of Rating Experience Refunds and Policy Dividends actually paid to the policyholder. However, amounts that are are not withdrawn should be treated as premiums and added to the investment account. They would then accumulate investment income.

The client that reinvests his refunds or policy divididends (bonuses) is receiving a larger amount of portfolio management than the one who does not. As a consequence, it would be possible to define two different products in that they contain different amounts of portfolio management. However, given the current state of measurment of the insurance industry, this is an unnecessary refinement.

The Definition of Investment Income

The proposal is to include all forms of investment income in the value of investment income. This would include forms that may be considered as transfers - interest income - and capital gains. Some capital gains should be amortized over the period to which they apply. This is proposed for bonds and debentures and mortgage loans. For other gains e.g. gains on the sale of property, realized gains should be used.

The Commodity Disaggregation of Gross Output

To calculate nominal gross output by commodity for insurance products the proposed approach is to extend the approach taken for the total gross output to the commodities. In other words to calculate premiums plus investment income less claims for each commodity.

An alternative would be to treat underwriting activity and investment activity as two separate categories of products each with a different commodity composition and each with a separate deflation methodology. Investment activities would be a single product and underwriting would be divided into a variety of products. However, there appear to be a series of products on a continuum from pure insurance to pure investment. To separate these activities would require separating them for each product. That is each mixed insurance and investment product would have to be treated as two products, effectively two different transactions with each client. This does not seem reasonable, and is certainly inconsistent with the treatment of goods.

Reinsurance

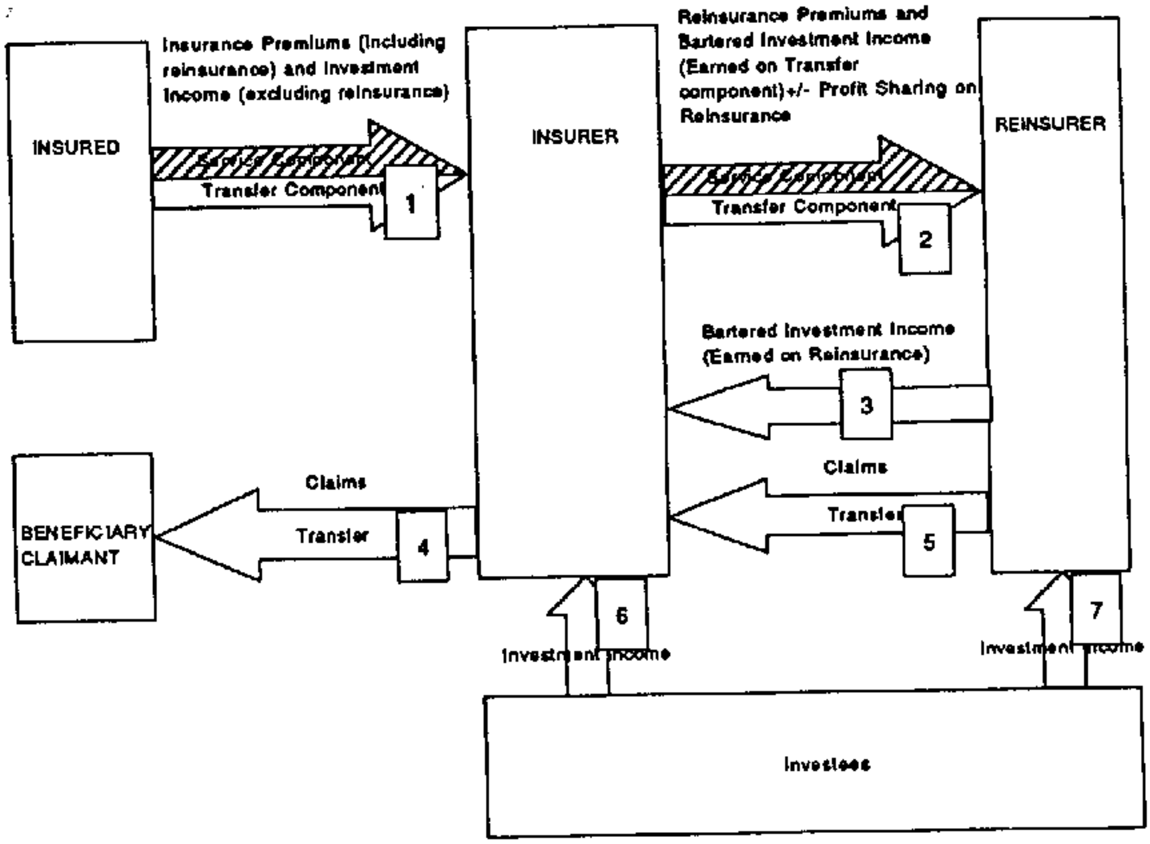
To understand the approach to reinsurance, it is necessary to explain the assumptions about the nature of reinsurance. It is assumed that the direct insurer maintains the relationship with the client (payment of claims, collection of premiums and other administrative costs associated with the policy). It is also assumed that the reinsurer receives a portion of the premiums, maintains reserves and invests them and pays a portion of the claims and the administrative expenses of the direct insurer.

Chart 2 shows the flows of payments for services and some of the other flows. All of the cross hatched flows represent payments for services. If they point towards the insurer they are gross output and if they point away they are intermediate input. In the diagram, flow number one consists of the total premium income (including reinsurance) and investment income (on reserves reduced by reinsurance). To obtain the full price of insurance requires adding flow 3 which is the value of investment income earned by the reinsurer.

The basic assumption is that there is one set of products produced. All of the primary and intermediate inputs associated with the provision of the insurance contracted for by the direct insurer should be considered as being used in the production of the direct insurer.

Flow number 1 also includes the service value of flow number 2. This is intermediate input to the direct insurer and gross output to the reinsurer. The relationship between direct insurer and reinsurer is similar to that of a general contractor and a subcontractor. The general contractor provides the service to the client and subcontracts certain parts of the work. The value of the reinsurance service should be the total premium income recieved plus investment income less expenses charged by the direct insurer to the reinsurer plus any profit sharing recieved from the reinsurer and less any profit sharing paid to the reinsurer. In other words, the value of the reinsurance service is premiums less provision for claims reduced by policy acquisition and claims administration expenses of the direct insurer that are charged to the reinsurer plus the profit sharing adjustment mentioned above.

Chart 2



Claims are not cross hatched and are not considered a payment for a service but rather a transfer. The rationale for this is that, the total premiums plus (bartered investment income) consist of a service portion and a transfer portion. The service portion is estimated residually by deducting the transfer portion (usually expressed as claims) from the total payment. Aside from this relationship, that is its use to measure the service portion to be included in gross output, claims are not related to output. In this assumption, the service component is the same regardless of whether the particular client made a claim or not. There is an average service to each client (of the same type of insurance). This applies to internal and external transaction. In addition, there may be claims paid from the current or accumulated transfers (reserves). These I would regard as completely separate from the payments for services. I would not calculate the services portion separately (by deducting claims from premiums) for each client or group of clients (including non-resident reinsurer). The service provided to non-residents would be the same fixed proportion of premiums and investment income as for residents.

To complete some other relationships in the diagram, flow 5 includes flow 6. Flow 4 is equal to flow 8. The investment flows related to direct investment only are represented by flow 7 which is included in flow 1.

Estimating Constant Price Gross Output

The intention is to estimate constant price gross output as it is usually estimated for other industries. Individual commodity of outputs must be revalued to base-year prices. Total gross output in constant prices for the industry is the sum of the gross output in constant prices of the individual commodities. Price indexes or quantity projectors must be developed to revalue gross output to base year values.

The Definition of Insurance Commodities

For purposes of deflation, commodities should be defined so they are similar in terms of price change and different in terms of price change from other commodities. Since the commodity classification must be delineated initially without actual data on price movements, it is necessary to describe products whose characteristics suggest that they would probably have different price movements or, if it is not possible to judge this, which might have different price levels. In theory, price in this case should refer only to the "insurance service charge".

The conceptual model suggests that there are at least two broad activities - direct insurance intermediation and reinsurance It appears that these two products should be distinguished in the data collected because they are different in nature - certainly they have a very different price level. Furthermore, they must be distinguished for each type of insurance.

The Valuation of Commodities

The conceptual model does imply that data are needed about investment income, direct insurance premiums and claims, and about reinsurance with a commodity dimension. However, since it is not the practice to segregate investments by line of insurance, it is proposed to distribute investment income on the basis of the commodity distribution of policy (technical) reserves.

In this proposed approach, there remains one problem - how to attribute investment revenue bartered by the direct insurer to the reinsurer. There are potentially two different rates of return on investments that could be applied - the rate realized by the direct insurer and rate realized by the reinsurer. insurer, there might be a significant additional burden to prepare it. It would probably be appropriate to use the rate of interest earned by the direct insurer. If there is a difference between the rate realized by the direct insurer and the reinsurer, it would appear as a different level of profits for each.

DATA ITEM	DIRECT INSURANCE	REINSURANCE CEDED	REINSURANCE ACCEPTED
Items Needed With a Commodity Dimension			
Premiums	Direct Insurer	Direct Insurer	Reinsurer
Claims	Direct Insurer	Direct Insurer	Reinsurer
Technical Reserves	Direct Insurer	Direct Insurer	Reinsurer
Premiums less Claims Administration and Policy Acquisition Expenses +/- Profit Sharing on Reinsurance	Not Applicable	Direct Insurer[1]	Reinsurer[2]
Items Needed Without a Commodity Dimension			
Investment Income			

1. This is part of intermediate input of the direct insurer.
2. This is part of gross output of the reinsurer.

Although all of these data elements are needed based on the conceptual model, it is not clear that all data elements need to be collected and if each data element should be treated as a commodity. Investment income (including technical reserves) is obviously not a separate commodity.

The previous section dealt mainly with the commodity dimension of gross output (the exception is reinsurance) which is gross output of the direct insurer and intermediate input for the reinsurer. In addition, there is a requirement to distinguish those costs that are intermediate and those that are primary. This will be a problem mainly with independent (selling) agents and claims adjusters. Insurers may not distinguish between own staff and external staff costs.

The Relationship to the Standard Model Survey Format

For convenience of presentation a number of modules of the standard model survey format have been combined in tables 1-7 in the next section of the model survey. The following table indicates the relationship between the tables and the standard modules. The data should be combined as proposed in the previous sections to obtain data by commodity.

RECONCILIATION BETWEEN TABLES 1-7 AND STANDARD MODULES OF THE MODEL SURVEY

	Table 1	Table 2	Table 3	Table 4	Table 5	Table 6	Table 7
	Column						
Module 2 - Revenue from the Sale of Services	1-6	1-6	1,2			1,3	
Module 3 - Intermediate Inputs	7-9	7-9					1,3
Module 5 - Exports			1,2	1-6	1-6	2,4	
Module 6 - Imports				7-9	7-9		2,4

TABLE 1 - DIRECT INSURANCE, REINSURANCE ACCEPTED AND CEDED (LIFE INSURANCE)

		Direct Insurance (Gross Output)			Reinsurance Accepted (Gross Output)			Reinsurance Ceded (Intermediate Input)		
		Premiums	Policy (Actuarial) Reserves	Claims Including Additions to Policy (Actuarial) Reserves	Premiums	Policy (Actuarial) Reserves	Claims Including Additions to Policy (Actuarial) Reserves	Premiums	Policy (Actuarial) Reserves	Claims Including Additions to Policy (Actuarial) Reserves
		1	2	3	4	5	6	7	8	9
Term Life Insurance	1									
Other Life Insurance - Participating	2									
Other Life Insurance - Non-Participating	3									
Annuity (Pension Funding) Services - Participating	4									
Annuity (Pension Funding) Services- Non-Participating	5									
Other Life Insurance and Pension Funding Services	6									

1. Direct insurance and reinsurance accepted are gross output. Reinsurance ceded is intermediate input.
2. Premiums (columns 1,4 and 7) should be calculated as gross premiums less rating experience refunds and policyholders dividends paid.
3. Policyholders dividends not paid (i.e. reinvested) should be included in reserves.
4. Provision for unreported claims (columns 2,5 and 8) should be used to distribute investment income by product . If some other method of distribution were used, then this data would not need to be collected.
5. Claims (columns 3,6 and 9) includes provision for unreported claims (column 2, 5 and 8).
6. Reinsurance assumed claims (column 6) should be decreased by the amount of profit participation paid to direct insurers and reduced by the amount of profit participation recieved from direct insurers.
7. Reinsurance paid claims (column 9) should be increased by any profit participation recieved from direct insurers and reduced by any profit participation paid to direct insurers.

TABLE 2 - DIRECT INSURANCE, REINSURANCE ACCEPTED AND CEDED (NON-LIFE INSURANCE)

		Direct Insurance (Gross Output)			Reinsurance Accepted (Gross Output)			Reinsurance Ceded (Intermediate Input)		
		Premiums	Provision for Unpaid and Unreported Claims	Claims Including Provision for Unpaid and Unreported Claims	Premiums	Provision for Unpaid and Unreported Claims	Claims Including Provision for Unpaid and Unreported Claims	Premiums	Provision for Unpaid and Unreported Claims	Claims Including Provision for Unpaid and Unreported Claims
		1	2	3	4	5	6	7	8	9
Motor vehicle	1									
Marine/Aviation	2									
Fire and Property	3									
Liability	4									
Accident and Health	5									
Other	6									

1. Direct insurance and reinsurance accepted are gross output. Reinsurance ceded is intermediate input.
2. Premiums (columns 1,4 and 7) should be calculated as gross premiums less rating experience refunds and policyholders dividends
3. Provision for unreported claims (columns 2,5 and 8) sould be used to distribute investment income by product . If some other method of distribution were used, then this data would not need to be collected.
4. Claims (columns 3,6 and 9) includes provision for unreported claims (column 2, 5 and 8).
5. Reinsurance assumed claims (column 6) should be decreased by the amount of profit participation paid to direct insurers and reduced by the amount of profit participation recieved from direct insurers.
6. Reinsurance paid claims (column 9) should be increased by any profit participation recieved from direct insurers and reduced by any profit participation paid to direct insurers.

TABLE 3 - SOURCES OF INVESTMENT INCOME

		Life Insurance	Non-Life Insurance
		1	2
Interest Earned	1		
Bonds and Debentures	2		
Mortgage Loans	3		
Loans to Policyholders	4		
Other	5		
Amortization	6		
Bonds and Debentures	7		
Mortgage Loans	8		
Dividends	9		
Real Estate	10		
Rentals	11		
Gains on the Sale of Property	12		
Gains on the Sale of Security	13		

1. Interest earned (Rows 1-5) should be included not interest recieved.
2. Unrealized gains on bonds and debentures(Row 7) and mortgage loans (Row 8) should be included .
3. Gross rent should be included. Expenses related to rental income should be treated as intermediate and primary inputs.
4. Gains on the Sale of property (Row 12) and gains on the sale of securities (Row 13) should be included when realized.

TABLE 4 - DIRECT INSURANCE, REINSURANCE ACCEPTED AND CEDED (LIFE INSURANCE) WITH NON-RESIDENTS

		Direct Insurance (Exports)			Reinsurance Accepted (Exports)			Reinsurance Ceded (Imports)		
		Premiums	Policy (Actuarial) Reserves	Claims Including Additions to Policy (Actuarial) Reserves	Premiums	Policy (Actuarial) Reserves	Claims Including Additions to Policy (Actuarial) Reserves	Premiums	Policy (Actuarial) Reserves	Claims Including Additions to Policy (Actuarial) Reserves
		1	2	3	4	5	6	7	8	9
Term Life Insurance	1									
Other Life Insurance - Participating	2									
Other Life Insurance - Non-Participating	3									
Annuity (Pension Funding) Services - Participating	4									
Annuity (Pension Funding) Services- Non-Participating	5									
Other Life Insurance and Pension Funding Services	6									

1. Direct insurance and reinsurance accepted are gross output. Reinsurance ceded is intermediate input.
2. Premiums (columns 1,4 and 7) should be calculated as gross premiums less rating experience refunds and policyholders dividends paid.
3. Policyholders dividends not paid (i.e. reinvested) should be included in reserves.
4. Provision for unreported claims (columns 2,5 and 8) should be used to distribute investment income by product . If some other method of distribution were used, then this data would not need to be collected.
5. Claims (columns 3,6 and 9) includes provision for unreported claims (column 2, 5 and 8).
6. Reinsurance assumed claims (column 6) should be decreased by the amount of profit participation paid to direct insurers and reduced by the amount of profit participation received from direct insurers.
7. Reinsurance claims (column 9) should be increased by any profit participation recieved from direct insurers and reduced by any profit participation paid to direct insurers.
8. Pension Funding is included in Annuity Services

TABLE 5 - DIRECT INSURANCE, REINSURANCE ACCEPTED AND CEDED WITH NON-RESIDENTS BY COMMODITY

		Direct Insurance (Exports)			Reinsurance Accepted (Exports)			Reinsurance Ceded (Imports)		
		Premiums	Provision for Unpaid and Unreported Claims	Claims Including Provision for Unpaid and Unreported Claims	Premiums	Provision for Unpaid and Unreported Claims	Claims Including Provision for Unpaid and Unreported Claims +/- Profit Participation	Premiums	Provision for Unpaid and Unreported Claims	Claims Including Provision for Unpaid and Unreported Claims +/- Profit Participation
		1	2	3	4	5	6	7	8	9
Motor vehicle	1									
Marine/Aviation	2									
Fire and Property	3									
Liability	4									
Accident and Health	5									
Other	6									

1. Direct insurance and reinsurance accepted are exports. Reinsurance ceded is imports.
2. Premiums (columns 1,4 and 7) should be calculated as gross premiums less rating experience refunds and policyholders dividends
3. Provision for unreported claims (columns 2,5 and 8) should be used to distribute investment income by product. If some other method of distribution were used, then this data would not need to be collected. Ideally the data on unreported claims should be weighted by the number of days during the year.
4. Claims (columns 3,6 and 9) includes provision for unreported claims (column 2, 5 and 8).
5. Reinsurance assumed claims (column 6) should be decreased by the amount of profit participation paid to direct insurers and reduced by the amount of profit participation received from direct insurers.
6. Reinsurance paid claims (column 9) should be increased by any profit participation received from direct insurers and reduced by any profit participation paid to direct insurers.
7. The commodity detail in this table is the minimum. It could be expended according to the importance of commodities in individual countries.

TABLE 6 - REVENUE FROM OTHER SOURCES

		Life Insurance and Annuities		Non-Life Insurance	
		All Sources	Exports	All Sources	Exports
		1	2	3	4
A. Service Charges on Deposits	1				
B. Portfolio Managment Services	2				
C. Insurance Broking and Agency Services (CPC 81401)	3				
D. Average and Loss Adjustment Services (CPC 81403)	4				
E. Other Services Auxiliary to Insurance and Pensions Funding (CPC 81402,81404,81409)	5				
F. Other Operating Revenue	6				

1. Portfolio Management services might need to be specified in more commodity detail.

TABLE 7 - GENERAL, OPERATING AND INVESTMENT EXPENSES

		Life Insurance and Annuities		Non-Life Insurance	
		From All Sources	Imports	From All Sources	Imports
		1	2	3	4
A. Wages and Salaries and Employee Benefits					
(a) Wages and Salaries	1				
(b) Employee Benefits	2				
B. Purchased (External) Business Services					
(a) Purchased Legal Expenses	3				
(b) Purchased Adjustment and Appraisal Services (CPC 81401)	4				
(c) Purchased Computer Services (CPC 84)	5				
(d) Purchased Advertising and Sales Promotion	6				
(e) Purchased Medical Examination Fees	7				
(f) Other Purchased Services Incidental to Insurance and Pension Funding (CPC 81402,81404,81405,81409)	8				
(g) Other Purchased Business Services	9				
(h) Counselling Fees (CPC 81332)	10				
C. Occupancy and Rental Property Costs					
(a) Depreciation	11				
(b) Rental and Leasing of land and buildings (CPC 82)	12				
(c) Other Occupancy Costs (not elsewhere specified)	13				
D. Telecommunication Services (CPC 752)	14				
E .Real Estate Services (CPC 822)	15				
F. Utilities	16				
G. Materials and Supplies for Own Use	17				
H. Property and Other Non-Commodity Indirect Taxes					
(a) Property and School Taxes	18				
(b) Permits, Licences and Other Non-Commodity Indirect Taxes	19				
I. Royalties and Patent Fees	20				
J. Services from Related Parties (Not Included Above)	21				
, Administrative and General Expenses (Please Specify ____________)	22				
TOTAL OPERATING, ADMINISTRATIVE AND GENERAL EXPENSES	23				

		Life Insurance		Non-Life Insurance	
		Opening	Closing	Opening	Closing
		1	2	3	4
Inventories	1				

MODULE 7 - EMPLOYMENT

		Non-Life Insurance		Life Insurance	
		Males	Females	Males	Females
		(1)	(2)	(3)	(4)
Paid Employees	1				
- Full Time	2				
- Part Time **	3				
Agents and Brokers	4				
- Full time	5				
- Part Time **	6				
Total	7				

** No definition of part-time is provided as it differs between countries. Each country should define part-time according to its own conventions.

MODULE 8 - FIXED ASSET STOCK, ADDITIONS AND DISPOSALS

			Additions				Reduction in Assets		
		Opening Balance	To Work In Progress	Transfers from Work in Progress to Fixed Assets	New Assets Purchased	Used Assets	Revaluation, Write-offs and Retirements	Disposals	Closing Balance
		1	2	3	4	5	6	7	8
Investment Assets									
Work In Progress	1			-					
Fixed Assets	2								
Land	3			+					
Building	4			+					
- Residential	5			+					
- Non-Residential	6			+					
Other	7			+					
Total	8			0					
Own Use Assets									
Work In Progress				-					
Fixed Assets	9								
Land	#			+					
Building	#			+					
- Residential	#			+					
- Non-Residential	#			+					
Other	#			+					
Total				0					

1. Other (Rows 7 and 14) includes leasehold improvements and machinery and equipment.
2. All values are gross i.e. before deducting accumulated depreciation
3. Additions should be gross of governement grants, tax credits and donations.

MODULE 9 - RESEARCH AND DEVELOPMENT

A. Has the organization been involved in R &D during the period ?

Yes ☐ Go to B.

No ☐ End of this module

B.

		Life Insurance and Annuities	Non-Life Insurance
		1	2
CURRENT EXPENDITURES ON R&D			
(a) Wages and Salaries	1		
(b) Other Current Costs	2		
Total	3		
CAPITAL EXPENDITURES ON R&D			
(a) Land	4		
(b) Buildings	5		
(c) Equipment	6		
Total	7		
Total Expenditure on R&D	8		

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APPENDIX

A NOTE ON THE COMMODITY CLASSIFICATION FOR INSURANCE

VOORBURG GROUP CONFERENCE
OSLO, NORWAY
SEPTEMBER 27 TO OCTOBER 2, 1993

R.W. COLLINS
STATISTICS CANADA
SEPTEMBER 1993

A Comparison of Proposed CPA, the CPC and Commodities Available in Canada

The following table compares the categories in the CPA with the categories currently available in Canada. The comparison raises some questions. Some of the links represent best guesses.

For the non-life insurance products it is possible to find a common set of classes that can be used by the EC and for Canada. These items are noted in upper case bold in the following table in both the CPA and Canadian columns. As the table shows this proposal has some disagreement with the current version of the CPC: some of the classes from the CPC would be eliminated. It is also likely that more commodity detail would be needed for some countries.

For the life insurance, pensions funding and annuity commodities, there is as yet no agreement within the EC countries. The CPA included in the table is one of a number of versions that was under consideration. In order to design a commodity classification for life insurance,pension funding and annuities, there are a number of issues that must be decided.

- Should there be a breakdown of insurance and annuities between group and individual policies?

- Should term insurance be a separate commodity from whole life insurance. Whole life contains a significant investment component. It is often argued that there is very little whole life insurance sold compared to term insurance and consequently on the grounds of significance, whole life does not warrant a separate commodity class. The level and evolution of price for term insurance would virtually be dependent on the pure insurance activity.

- Should pension funding be a separate commodity from annuities? Should management of pension funds for others be a separate commodity? It is not difficult to distinguish life insurance and annuities in the commodity dimension. From the production point of view, it would not make sense to distinguish annuities which are part of pensions from those which are not. In the production sense such a distinction would only be needed if the value and evolution of price were quite different. The major distinction between annuities that are pensions and those that are not is that some of the annuity considerations (payments) come from tax paid funds and some do not. This would not materially affect the costs for the writer of the annuity to produce the product and probably would not affect the price level or change for the product. Information on registered plans could be obtained from the tax authorities.

- Should the various forms of whole life insurance be separate commodities? In the CPA proposal there are a number of categories which depend on the maturity and the contractual agreement concerning the bearing of investment risk.This decision should depend on how different the prices are for similar coverage. Since we do not have the information to determine this, it is necessary to guess how different they would be in terms of the share of pure insurance and portfolio management.

- Should commodities be delineated to aid with sectoring of the production of life insurance?

Canadian Categories	CPA	CPC
A. Individual Life Insurance (a) Participating B. Group Life Insurance (a) Participating	66.01 Life Insurance Services 66.01.1 Underwriting and Investment Services (where the policies mature on the death of the policy holder) 66.01.11 Contracts which mature whenever death occurs ("Whole of Life") 66.01.12 Contracts which mature only if death occurs within a stated period of time 66.01.2 Underwriting and Investment Services (where the policies mature on survival of the policy holder or named person) 66.01.22 Contracts where the maturity value is affected by bonuses not specified at the outset "bonus contracts" 66.02.23 Contracts where the maturity value depends entirely on the performance of a segregated fund in which premiums are invested ("contracts where the investment risk is borne by the policy holder") 66.01.6 Other underwriting and Investment Services belonging to activity 66.01, excluding pension funding (66.01) when this is a secondary activity 66.01.7 Reinsurance accepted on life risks	81211 - Life insurance services
A. Individual Life Insurance (b) Non-participating B. Group Life Insurance (b) Non-participating	66.01.21 Contracts where the maturity value is specified at the outset "non-bonus" Contracts 66.01.7 Reinsurance accepted on life risks	

C. Individual Annuity Services (a) Participating (b) Non-participating D. Group Annuity Services (a) Participating (b) Non-participating E. Other Annuity Services (a) Settlement Annuities (b) Disability Annuities F. Staff Pension and Insurance (a) Staff Pension and Insurance	66.01.3 Underwriting and Investment Services related to the sale of annuities 66.01.4 Underwriting and Investment Services related to permanent health insurance policies 66.01.5 Investment and Investment Services related to Capital Redemption Policies 66.02 Pension Funding Services 66.02.1 Schemes for individuals 66.02.11 "Bonus and Non-bonus" contracts 66.02.12 Contracts where the pension depends entirely on the value of a segregated and unitized fund managed by the intermediary 66.02.2 For Groups 66.02.21 "Money Purchase" bonus and non-bonus contacts with a life insurance enterprise 66.02.22 "Money Purchase" type where the fund is unitized and managed by a financial intermediary 66.02.23 "Final Salary" type, pension depends on final salary and length of contribution	81212 - Pension and annuity services
FIRE AND PROPERTY G Property (a) Personal (b) Commercial L. Fidelity M. Hail P. Mortgage R. Title	**FIRE AND PROPERTY** 66.03.5 Fire and Other Property Damage or Loss 66.03.10 Other Non-Life Insurance Services n.e.c. 66.03.7 Assistance (Including Travel)	81295 - Fire and other property damage insurance services 81296 - Pecuniary loss insurance services

LIABILITY K. Credit Q. Surety N. Legal Expenses J. Boiler and Machinery O. Liability	**LIABILITY** 66.03.8 Credit and Suretyship 66.03.92 Legal Expenses 66.03.6 General Liability Insurance	81297 - General liability insurance services
AUTOMOBILE H. Automobile (a) Liability (b) Personal Accident H. Automobile (c) Other	**AUTOMOBILE** 66.03.2 Motor Vehicle Insurance Services 66.03.21 Third Party Liability 66.03.22 Damage or Loss Services- Third Party Liability	81292 - Motor vehicle insurance services
MARINE/AVIATION I. Aircraft S. Marine	**MARINE/AVIATION** 66.03.3 Marine, Aviation and Other Transport Vehicle Insurance Services - Goods in Transit Insurance Services - Aircraft - Aircraft Liability - Ships (sea, lake, river and canal Vessels) - Liability for ships(sea lake river and canal vessels)	81293 - Marine, aviation and other transport insurance services 81294 - Freight insurance services
ACCIDENT AND HEALTH T. Accident and Sickness	**ACCIDENT AND HEALTH** 66.03.1 Accident and Health Insurance Services	81291 - Accident and sickness insurance services
OTHER NON-LIFE INSURANCE	66.03.11 Reinsurance of Non-life Risks n.e.c.	81299 - Other insurance services