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Draft for a Swiss Insurance Index

(Working Paper)

by

The Swiss Federal Statistical Office

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Appendices:

Draft for a Swiss Insurance Index
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At present, Swiss price statistics have no yardstick for gauging inflation in the insurance sector. Neither the consumer price index nor the producer price index contain indicators about the movement of insurance premiums. To fill this gap, the Swiss Government commissioned the Federal Statistical Office (FSO) to develop a separate insurance index aimed at making a first-ever statistical record of changes in premiums and a thorough analysis of insurances within the framework of price statistics. The FSO started work on this project in November 1994.

This report presents the preparatory work, summarizing present position of the project and at the same time providing a basis for discussion and decision-making in the design of the statistics as the project progresses.

1 Content, objective and priorities, general framework

11 Coverage

The insurance sector is so varied that a rough subdivision (table 1) is the minimum requirement as the starting point for further consideration.

Probably the most important distinction is between national social and private insurances, the latter being subdivided into mass and industrial business.

Table 1: Coverage

Social insurance scheme
Private insurance
Mass business
Life insurance
Casualty insurance
Industrial business
Direct insurance
Reinsurance

In Switzerland, the concept of ***social insurance*** describes insurance organized or ordered for natural persons by the Government for its socio-political ends (such as protecting the social position of the family against emergencies). Primarily, insurance conditions are not regulated by contract but are laid down by the State, and premiums largely take the form of compulsory contributions. It should be emphasized that, in Switzerland, the socio-political objective criterion plays a key role. This means that health insurances are counted as social insurances even though they have typical private insurance features such as freedom of contract and risk-based premiums.

Private insurances are civil-law contracts which, with a few exceptions, are concluded on a voluntary basis. The difference between *mass business* and *industrial business* in this sector is significant because private household expenses comprise expenditure on mass business insurance only. *Direct insurance* in the industrial sector concerns entrepreneurial insurance, while *reinsurance* is insurance of the insurance company.

12 Objectives and priorities

The general objective of the planned insurance index is to periodically establish as accurate a picture as possible of price changes in the insurance premiums paid by private households and enterprises in Switzerland. The aim is to measure premium movements with maximum elimination of quantity and quality effects[1]. Thus, the index touches on both the consumer price index and the producer price index for services.

The objective of covering the whole insurance sector with a price index is an ambitious one, in the light of the number of different products on offer in the many branches of insurance. In addition, dealing with insurance in price statistics represents a new, methodologically challenging project, implementation of which will take several years, if all branches are really included. For this reason, the FSO is aiming at a modular approach, processing clearly delineated segments one by one for gradual introduction over a period of time. The FSO has set itself the following partial targets:

1. Premium index for health insurance
2. Premium index for mass business
3. Possible inclusion of insurance in the CPI
4. Premium index for social insurances
5. Premium index for industrial and reinsurance business

Initially, the project focuses on information that supplements the CPI, so priority will be given to designing partial indices for insurance premiums in private households (phases 1 and 2) and dealing with the question of whether insurance should be incorporated into the CPI (phase 3).

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[1] Increased claim frequency and substitution of out-patient for hospitalized treatment are examples of quantity effects impacting on health insurance premiums. Technical progress or new therapies are factors affecting the quality of medical treatment.

13 Applications

The insurance index provides data for any future incorporation of insurance into the CPI and is at the same time intended as a building block in the planned producer price index for services.

In official statistics, the results are to be used to adjust nominal price values in the National Accounts.

Moreover, the results can also be used by insurance supervisory authorities and by enterprises - particularly in the insurance industry - as well as for monitoring and analyzing the economy.

14 General framework

The index calculation must be easy to follow, as well as having a clear methodological basis.

Data are to be collected, checked, analyzed and distributed as efficiently and inexpensively as possible. Private individuals or corporate bodies will be surveyed direct only when the necessary data is not available at government level or from other public institutions.

For data protection reasons, the data collected and the name of reporting unitsmust be kept strictly confidential and may be used solely for statistical purposes.

The insurance index is closely linked to other statistics, particularly to the CPI, the planned producer price index for services, the National Accounts, statistics on private insurance and on social insurances. Hence the importance of coordinating methodologies, nomenclatures and data collection.

To ensure the Swiss insurance index is internationally comparable, the systematics used are to be aligned as far as possible on the methods and nomenclatures used in statistics on international services.

2 Existing information

Initial investigations have shown that, to date, there is no specific index for insurance premiums in Switzerland or in statistical offices and organizations abroad.

The picture as regards current practice on including insurances in the consumer price index is hard to survey. In Switzerland, the CPI does not cover any insurances. Within the EU and the OECD, opinions differ about which insurances and premium components should be included in a consumer price index. Appendix 1 provides an overview of practices in some countries.

Appendix 2 contains a summary of the main basic sources consulted in the preliminary phase.

3 Methodological principles

3.1 The premium and its components

The aim of the insurance index is to reflect premium movement for the major insurance products.

What counts for the planned insurance index are the premiums actually paid, ie the **gross premiums** paid by Switzerland's permanently resident population and by Swiss-based companies to supervised private insurance companies and social insurance schemes.

The gross premium represents the price paid by insured parties to the insurer for protection against the (financial) consequences of an insurance claim. It comprises the net premium and a surcharge for operating costs[2].

The **net** or **risk premium** covers the total amount of claims expected to be paid and is determined by taking account of the frequency of damage (number of claims lodged per unit of time) and the average damage (average compensation paid per claim). In the private insurance sector, contingency and benefit loading are usually added to the net premium.

The second key component of the gross premium covers the insurance company's **operating costs**. Basically, these costs comprise staff salaries and expenses, commissions (eg for concluding insurance contracts), rents, consumption of fixed capital, ordinary maintenance and repair etc.

The operational and benefit loading on net premiums reflect the **service** provided by the insurer and which could conceivably be included in the CPI (see chapter 4).

The composition and factors determining social and/or private insurance premiums play an important part in the calculation of insurance indices. Most social insurance premiums are based on labor and entrepreneurial income and are paid by both the insured parties and their employers. Furthermore, to finance social benefits and administrative costs, further public subsidies in addition to premiums and property income are used. In contrast, net private insurance premiums are risk-based and contain benefit loading[3].

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[2] In life insurances, there is also a further premium not absorbed by risk.

[3] Study of the premiums shows just how difficult it is to find a solution for health insurances which satisfies both theoretical and practical requirements: health (sickness) insurance is an important element in the Swiss social insurance system but premiums are levied independently of salary and are largely determined according to individually insured risks.

32 The product outline

The purpose of the product outline on which the future insurance index will be based is to subdivide the insurances into **branches** which are as **homogeneous** as possible and which feature the major product variants.

At the moment, there is no mandatory demarcation and classification for price statistics purposes, either in Switzerland or at international level. The development of such systematics presupposes in-depth analysis of the broad range of insurance products and of existing national and international insurance systematics and nomenclatures (see list in Appendix 3).

Table 2 presents an initial draft of a possible product outline classification for the insurance index. The draft is intended as the point of departure and basis for discussion in fixing the final structure as work progresses. A definitive classification and definition of the degree of detail of the product outline will come at a later stage of the project.

The first basic distinction is between **social** and **private insurances**. Here, the focus is on the criteria of financing, the nature of the premiums and insurer/insured person relations.
In the social insurance sector, the employer and/or the government, as well as the insured person, make substantial contributions to the financing which have a tangible effect on the level and development of the relevant premiums. Furthermore, premiums related to ensured risks are of less importance than in private insurance because social insurance aims at achieving a redistribution of resources, or rather a social equalization, among the insured parties. Lastly, individual freedom of contract is largely absent in social insurance schemes or is at least considerably curbed by government stipulations.

In contrast, the premiums paid by policy-holders are far and away the main source of financing for private insurances, and insurer/policy-holder relations are regulated by contract.
For insurance index purposes, it is important to remember that among social insurances, health insurance has especially close links to the consumer price index because it represents previous financing of expenditure which is a regular part of household consumption.

In the **private insurance** segment, a distinction is made between **mass business** and **industrial business**. Private household expenditure covers outlay on mass business only.

The distinction between **direct insurance** and **reinsurance** is relevant because private households can only incur insurance expenditure by concluding insurance policies direct. With very few exceptions, reinsurance is the insurers' insurance and is part of industrial business. Direct insurance in the industrial business context is insurance of companies.

National social and private insurances also have to be subdivided into insurance branches which are as homogeneous as possible as regards the object insured (persons, objects) and/or the risk insured (eg accident, liability, health). For instance, within mass business, a differentiation which suggests itself is between **life and casualty** insurance.

Table 2: Draft of possible products systematics

Social insurances	Private insurances	
	Mass business	**Industrial business**
	Life insurance	**Direct insurance**
Old-age and survivors' insurance	Capital insurance on survival or death	Transport insurance
Disability insurance	Annuities	Goods
Compensation for loss of earnings for persons on military/civil defence service	Other risks	Valuables
	Supplementary insurance against death through accident	Baggage
Unemployment benefit insurance		Accident to conveyance
Accident and occupational disease insurance (mandatory accident insurance)	**Casualty insurance**	Liability
	Health insurance	Building insurance
Health insurance (sickness and maternity)	Accident insurance	Fire
	Liability insurance	Natural hazards
Pension funds	Private liability	Liability
	Family liability	Installation insurance
Collective accident and health insurance	Legal expenses insurance	Fire
	Building insurance	Theft
	Fire	Water damage
	Natural hazards	Glass insurance
	Liability for party having a housebuilt	Lock replacement
	House contents insurance	Motor vehicle insurance
	Fire	Third-party
	Theft	Partial cover
	Water damage	Fully comprehensive
	Glass insurance	Liability
	Lock replacement insurance	Repair
	Motor vehicle insurance	Other direct insurances
	Third-party	Business liability
	Partial cover	Loss of profits insurance
	Fully comprehensive	Business legal expenses
	Liability	Contractors' insurances
	Repair	Credit and guarantee insurance
	Travel insurance	Environmental liability insurance
	Baggage	Loss of licence insurance
	Cancellation	Executive organ liability insurance
	Livestock insurance	Art work insurance
	Insurance of valuables	
		Reinsurance
		Life
		Accident
		Health
		Liability
		Third-party
		Fire
		Transport
		Credit and guarantee
		Other branches

Then the individual branches are subdivided into homogenous sub-groups. For example, in motor vehicle insurance, a distinction can be based on whether the vehicle insured is a car, motorbike, etc.

In defining the insurance branches and subgroups, special attention should be paid to the *trend towards combined private insurance* where a single contract insures the same object against several risks. For instance, combined car insurance covers liability, vehicle and passenger insurance. Classification should be based on the object insured and not on the risk insured, to ascertain the movement of premiums for the combined contracts as a whole.

A variety of **additional and special classifications** can be established to supplement the basic insurance systematic. Primarily, these promote the analysis and interpretation of results and provide important additional information for index users. Examples of additional classifications are the subdivision into an index of individual and group insurances and a classification which includes/excludes reinsurance.

33 Weighting

In all probability, two weightings will be defined for the insurance index, one for the product outline and a sales channel weighting for insurance companies.

331 Weighting of the product outline

The findings of FSO consumer surveys and Federal Office of Private Insurance (FOPI) statistics about insurance companies subject to Swiss surveillance are available as the basis for weighting the product outline (cf Appendix 2).

The consumer surveys show the level, structure and development of private household expenditure in Switzerland. On the basis of these findings, social insurances and mass business can be approximately weighted. According to the 1992 consumer survey, an overall 16.4% of household expenditure went on insurance premiums, the lion's share thereof (13.5%) on social insurance for old-age and survivors, disability, military/civil defence compensation[4], pension funds, mandatory accident insurance and health insurance.

FOPI statistics provide an insight into the total volume and structure of premiums in Swiss direct and reinsurance business, making it possible to weight the whole private insurance spectrum. However, account should be taken of the fact that the premium revenue of supervised private insurance companies is not broken down separately into mass and industrial business. For this reason, the relevant percentages had to be estimated after the event on the basis of consumer survey data. The Swiss National Accounts already have the corresponding procedure and

[4] This is a compulsory insurance against loss of income during military/civil defence service.

estimate values which are also applicable to the insurance index. However, a reliable weighting could also be achieved by exploiting new data sources, more specifically internal company data or association statistics.

At some later stage of the project, we may be able to exploit the statistics of the Federal Office of Social Insurance and so far unknown data sources, such as market research data, internal insurance company data or association statistics, as a basis for empirical weighting.

332 Weighting of sales channels

The weighting of sales channels can be used to take account of the market share of the private insurance companies included in the survey. FOPI statistical data provide a good-quality basis for this weighting.

34 Data collection

341 Choice of companies

In line with our objective of giving priority to insurances as they impact on consumers (cf 12), the focus is on "recognized" health insurances[5] and on private insurance companies which deal in direct insurance.

In 1993, a total of 143 insurance and reinsurance companies were supervised in Switzerland by the Federal Office of Private Insurance[6], operating in the following fields.

Supervised private insurances in Switzerland, 1993

A. Direct insurance	**123**
Life insurance	30
Claims insurance	93
B. Reinsurance	**20**
Total	**143**

Source: Private insurances in Switzerland, 1993, Federal Office of Private Insurance, Berne, 1994, p 7.

[5] Recognized health insurances are health insurance institutions which are subject to the Federal Health Insurance Act and are supervised by the Federal Office of Social Insurance.

[6] Cf "Die privaten Versicherungseinrichtungen in der Schweiz 1993", Federal Office of Private Insurance, Berne 1994, page 7.

Including the 207 "recognized" health insurances, which are supervised by the Federal Office of Social Insurance, and subtracting reinsurance companies (20), the reference population for the survey consists of 330 insurance companies.

The companies included in the survey will be chosen either by means of simple random or stratified sampling. In the latter case, a survey of all major insurers and a representative selection of medium and small companies should be sufficient to obtain a representative picture of premium movements.

342 Choice of insurance products

Among the different insurance branches, specific product variants are selected for which premiums are actually collected. The most important selection criterion is the *premium volume of the products*. Primarily, big-selling products of significance to large groups of policy-holders were considered. The second criterion of representativity is the degree to which the selected insurance products reflect premium movement in other products.

On comparability grounds, the products should be selected from those that are provided over a longer time without substantial changes in their conditions. The detailed analysis and subsequent choice of suitable insurance products will in any event be very time consuming.

343 Organization of survey

An initial evaluation of survey methods revealed that a written consultation would also serve insurance index investigation purposes. Previous experience with this type of survey and the fact that it is comparatively inexpensive are arguments in favour of a direct survey. To avoid overburdening the insurance companies, the survey should focus solely on information which cannot be obtained from other sources.

A written questionnaire presupposes a detailed analysis and description of each product variant containing the gross premium (ideally subdivided into net premium, benefit and operational loading), the risk insured, the object insured, type of coverage, extent of coverage and other characteristics which determine price.

344 Survey periodicity and base period

An annual survey should be sufficient to ascertain a representative movement in premiums because insurance tariffs are not generally subject to short-term fluctuation.

The calculation and publication of the first premium index is scheduled for around the year 2000, so 1998 could be adopted as the base year because that is when the next consumer survey is likely to be conducted.

35 Calculation method

The main aim of the index is to present premium movement in itself, while the absolute level of the premiums is of secondary importance.

FSO investigations during the revision of the CPI showed that measuring price movements alone is a very demanding challenge[7] because of the pronounced quantity and quality effects involved in insurance premiums (cf chapter 3.5.2). So choosing an appropriate method is correspondingly difficult.

351 Price index based on the Laspeyres formula

Swiss price statistics are largely based on Laspeyres' concept, and the insurance index too will probably be calculated using it. The Laspeyres index has major practical advantages. It is easy to interpret and generally intelligible. Furthermore, costs for establishing weights are comparatively low because, with this approach, the products and weights structure is kept constant over a specific period and reweighting is generally not necessary for several years.

352 Changes in product lines and quality standards

The calculation method should make it possible, within the fixed structure of the Laspeyres model, to exclude the influence of quality variations and quantity effects on premium movement from the index calculation while including on-going changes in product lines. The influence of quantity and quality effects varies in each branch of insurance, so the effects have to be determined and quantified individually for each risk group.

In a narrowly interpreted Laspeyres concept, the survey should in principle be confined to the prices of those goods which are totally comparable with those of the base period. In the insurance sector with its extremely complex products, where new products are continually being launched on the market, this cannot be done using traditional methods.

However, a broader-based Laspeyres concept is to be used to take account of constantly changing product lines. We plan substitution of insurance products (incorporation of new and dropping of old products) according to the same rules as for the CPI[8].

It will be difficult to break down any changes in premiums into a quality component and a price component. The assessment and measurement of qualitative changes has long been a key problem in price statistics. Without detailed

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[7] Cf chapters 4.5.6 and 4.6.2 in "Die Revision des Landesindexes der Konsumentenpreise, Konzept für einen neuen Landesindex", Federal Statistical Office, Berne, 1993.

[8] Cf chapter 4.5.6 in "Die Revision des Landesindexes der Konsumentenpreise, Konzept für einen neuen Landesindex", Federal Statistical Office, Berne, 1993.

information and consolidated measurement methods, no conclusive statement can be made. Thus, different methodological approaches, including the hedonic approach, should be considered in order to master the quality problem in relation to the insurance index.

353 Aggregation of the individual premiums

In the Laspeyres approach, aggregation of the individual premiums is done either via the average price method or the base relations (elementary indices) method. In the **average price method**, the arithmetic mean of all insurance premiums within a certain branch is first calculated. The rate of change between the present average price and the corresponding base-period value produce the premium index. This method presupposes a high degree of homogeneity among the product outline items, but in the case of the insurance index, the constitution of exclusively homogenous items will be virtually impossible. For that reason, the **base relations method** for aggregating individual data is first choice. In this method, the rate of change is first found for each individual insurance premium and an elementary index or base relation formed. The arithmetic or geometrical mean of all base relations gives the index for the corresponding insurance.

354 Original base

The original base (Index = 100 points) can either be defined as a month or a year. The argument in favour of a month base is that the insurance index can be introduced much faster than would be the case if a year were chosen as the original base because in the latter event, the index would have to have been operable for a year before its introduction, and this would mean more work for all concerned.

36 Data evaluation and publication of results

The collection, control, analysis and storage of the insurance premiums surveyed is to be done using an existing database application specially designed for price statistic purposes. The insurance index will be included in this database as a further price sub-system. Its inclusion will generate a considerable synergy potential because we can profit from previous experience with the CPI and the producer and import price index.

Dissemination focuses on *price changes in the form of premium indices*.

4 Inclusion of insurances in the national consumer price index

As well as measuring premium movement, the insurance index is intended to provide data for including insurances in the CPI. The present index includes no insurances whatsoever,

and the omission of health insurance premiums in particular is repeatedly regarded as a weakniss in the present Consumer Price Index.

The crucial question to be evaluated in connection with including insurances in the CPI is which insurance expenditure should be considered as private household consumption. This involves a dual question:

- Which insurance branches should be linked to private consumption?
- Which premium components should be counted as private consumption? The National Economic Accounts have an established rule that generally only the service provided by the insurance institution, ie the premium volume of the households minus the claims paid to the households, counts as private consumption[9].

These questions cannot be answered conclusively as matters stand. The current position on insurance premiums has not changed since the issue was discussed on the introduction of the revised Consumer Price Index in May 1993. At that time, the following arguments against including insurances in the CPI carried the day:

- According to the 1992 consumer survey, the bulk of the insurance premiums paid by the households consists of social contributions which are defined as transfers. Only some 4% of the expenditure concerns premiums directly related to consumer expenditure. If account is taken of the fact that only the service component of premiums is to be regarded as consumption, then the consumer price index omits a mere 0.5% of household expenditure.
  This biais is quite acceptable, considering that the separate registration of the gross premium's service components is extremely time consuming.
- Apart from any savings component that may be involved, the remainder of the premium serves to cover a claim, such as the repurchase of goods or restoration to their original condition. This expenditure is already included in household expenditure, so incorporating these premium components separately would cause double accounting.
- The same applies to health insurance premiums. The CPI already includes the costs of dentist, doctor, hospital and paramedical services as well as medication prices. What is more, in heavily subsidized health insurance schemes, the service component is probably even smaller than in profit-oriented private insurances. Finally it was said back in 1993 that in Switzerland's National Accounts health insurances are included in the social insurance sector, so the corresponding expenditure should be regarded as transfers from households to the social insurance sector and not as final consumption.

As already indicated, several statistics users did not find the 1993 solution totally satisfactory: however, no new light has been shed on the situation in the meantime. It is self-evident that the final allocation of products and suppliers to social and/or private insurance as well as the handling of premiums for consumer price index purposes require further clarification.

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[9] Cf "Versicherungen - Landesindex der Konsumentenpreise (LIK)", FSO, 1988 , BG LIK 88/9, especially enclosure 4.

5 Summary

Preliminary work by the FSO with a view to developing an insurance index has led to the following conclusions:

1. In the light of the wide range of product variants within the various branches of insurance, a price index for insurances can only be constructed in stages. Potential partial aims are:
   - Price index for the insurance premiums of private households,
   - Price index for national social insurances,
   - Price index for "industrial" business.

   From the FSO's standpoint, priority clearly lies with calculating a premium index for health insurance, or rather for "mass business" in the private insurance sector. The question arises of whether and how these partial indices are to be built into the Consumer Price Index at some later stage.

2. At present, there is no insurance premium index in Switzerland or in other countries, so tried-and-tested, standardized procedures are lacking. An important objective of this project is to develop a methodology based on existing or planned nomenclatures.

3. Developing an expedient calculation methodology involves several thorny questions:
   - Drawing up a product outline subdividing insurances into branches which are as homogeneous as possible and containing the major product variants. It transpires that the distinction between social and private insurances causes methodological problems. In Switzerland's case, this applies in particular to health insurance which combines social and private insurance components.
   - Breaking down the gross premium into its basic components. The empirical registration of the service components is particularly difficult and time consuming.
   - Taking account of changes in quality and quantity. Various methodological approaches have yet to be investigated.

4. The FSO has the following plans regarding the index formula as well data collection and analysis procedures:
   - price index based on Laspeyres formula, using a broader-based Laspeyres concept to take account of constantly changing products, as used in the CPI.
   - selection of products on the basis of premium volume and selction of the surveyed institutions on the basis of simple random or stratified sampling.
   - weighting of the product outline on the basis of consumer survey findings and private and social insurance statistics.
   - base period coordinated with the consumer survey likely to be held in 1998.
   - one-year survey periodicity, with written survey of insurance companies.
   - aggregation of the individual premiums using the base relations method.

   Over the next few years, work will focus on consistent pursuit of the above-mentioned priority partial objectives, with the aim of being able to publish concrete results around the year 2000.

Appendix 1

Insurances in the consumer price index

(An international comparison)

This list covers only those countries for which we already have documentation[1].

1. **Switzerland, Denmark** and **France** take no account whatsoever of insurances in the Consumer Price Index.

2. **Belgium**: Fire insurance, health and accident insurance, motor vehicle insurance and family liability insurance.

3. **Finland**: Home ownership insurance, vehicle contents insurance, compulsory motor vehicle liability insurance, travel insurance and other insurances (such as life and accident insurance).

4. **Great Britain**: Home ownership insurance, house contents, life and motor vehicle insurance.

5. **Netherlands:** Building insurance, motor vehicle insurance, health and accident insurance, life insurance.

6. **Luxembourg:** Car liability insurance.

7. **Sweden**: Insurances for detached and semi-detached houses, house contents, motor vehicle insurance.

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[1] The compilation is based on a written survey, conducted by the FSO in February 1995, among the Statistical Offices of the following 15 countries: Austria, Belgium, Canada, Denmark, Finland, France, Germany. Great Britain, Italy, Luxembourg, Netherlands, Norway, Sweden, Spain and the USA. The Spanish information is confidential and cannot therefore be published in this contribution.

Appendix 2

List of the main methodological sources

1 Swiss information

Methodological foundations of Swiss price statistics

- Das zukünftige preisstatistische System der Schweiz, Office fédéral de la statistique, Berne 1989.

- La révision de l'indice suisse des prix de gros: Concept de détail du nouvel indice des prix à la production, documents techniques, Office fédéral de la statistique, Berne 1992.

- La révision de l'indice suisse des prix à la consommation, Conception du nouvel indice suisse des prix à la consommation, Office fédéral de la statistique, Berne 1993.

The insurance sector in the Swiss National Accounts

- Volkswirtschaftliche Gesamtrechnung: Ansätze für eine alternative Behandlung der Versicherungsunternehmen, Forschungsstelle für Empirische Wirtschaftsforschung, Hochschule St. Gallen, Prof. Dr. P. Kischka, Final report, April 1991, Office fédéral de la statistique, Berne.

Further information, nomenclatures and statistics

- Les services dans le futur indice des prix à la production, Eco'diagnostic analyses, Analyses et études économiques, Mandat de l'office fédéral de la statistique, section des prix et de la consommation, Arlette Cherix-Mueller/Alain Schoenenberger, Genève, janvier 1991.

- Nomenclature générale des activités économiques, documents techniques, Berne 1985.

- NOGA, Nomenclature générale des activités économiques, 1ère partie: structure détaillée, Berne 1995.
  (This systematic, which is based on NACE Rev.1, will replace the 1985 systematic for the September 1995 Business Survey.)

- Institutions de prévoyance en Suisse: Statistique suisse des caisses de pension, Office fédéral de la statistique, Berne.

- Enquête sur la consommation 1990: Les dépenses et les revenus des ménages privés, Office fédéral de la statistique, Berne 1992.

- Zahlenspiegel der Sozialen Sicherheit in der Schweiz, Office fédéral des assurances sociales, Berne

- Statistique de l'assurance-maladie. Caisses-maladies reconnues par la Confédération, Office fédéral des assurances sociales, Berne.

- Les institutions d'assurance privées en Suisse, Office fédéral des assurances privées, Berne.

2 International insurance statistics and nomenclatures

- Methodological manual on service statistics, chapter "Insurance Services", April 1993 version, EUROSTAT, Luxembourg.

- Statistical classification of economic activities in the European Community, Official Journal of the European Communities, No 83/1.

- International Standard Classification of All Economic Activities (ISIC), Third Revision, United Nations, Statistical Papers, Series M, No. 4, Rev. 3, New York, 1990.

- Statistical classification of products by activity (CPA) in the European Economic Community, Official Journal of the European Communities, No L 342/1.

- Provisional Central Product Classification (CPC)", United Nations, Statistical Papers, Series M, No. 77, New York, 1991.

- Proposal of the CPA for Insurance Services, EUROSTAT, Luxembourg, version 9.2.1995.

- Detailed recommendations of the Voorburg Group on service statistics for changes to the services part of the provisional central product classification (CPC), (with national bibliography), Statistical Commission, 28th session, 27.2-3.3.1995

Various contributions on service statistics by the **OECD** and the **Voorburg Group** provide invaluable methodological starting points for designing the insurance index but could not be taken into account here. A more exhaustive list of the contributions consulted is planned.

Appendix 3

Compilation of key typologies concerning the insurance sector

1. Sectoral Classification of the National Accounts of Switzerland.

2. NOGA, Nomenclature générale des activités économiques, 1ère partie: structure détaillée, Berne 1995, Berne 1995.

3. Insurance premium classification in line with Federal Statistical Office consumer surveys.

4. Social insurance classification in line with Federal Office of Social Insurance practice.

5. Private insurance classification in line with Federal Office of Private Insurance practice.

6. Allocation of the insurance branches subject to the Federal Loss/Damage Insurance Act in line with the Loss/Damage Insurance Ordinance of 8 September 1993.

7. European System of Integrated Economic Accounts (ESA) second edition, EUROSTAT, Luxembourg 1979.

8. Statistical classification of economic activities in the European Community, NACE.Rev.1.

9. Proposal of the CPA for Insurance Services, EUROSTAT, Luxembourg, version 9.2.1995.