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INSURANCE

Inter-regional Seminar on Insurance and Reinsurance

Prague, 20 - 30 October 1969

Report by the UNCTAD secretariat

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CONTENTS

Note: The designations employed and the presentation of the material in this document do not imply the expression of any opinion whatsoever on the part of the secretariat concerning the legal status of any country or territory, or of its authorities, or concerning the delimitation of its frontiers.

INTRODUCTION

1. This seminar, held at Prague from 20 to 31 October 1969, was the first United Nations inter-regional seminar on insurance and reinsurance. It was organized by the United Nations Conference on Trade and Development (UNCTAD) in co-operation with the Government of the Czechoslovak Socialist Republic within the framework of the United Nations Development Programme (UNDP). The offer of the Government of Czechoslovakia to invite the seminar to Prague was conveyed originally by that country's representative to the Committee on Invisibles and Financing related to Trade at its second session, during the discussion of questions of technical assistance[1/]. Within the United Nations, the Division for Invisibles and the Technical Assistance Co-ordination Unit of the UNCTAD secretariat and the Office of Technical Co-operation at United Nations Headquarters dealt with the organization of the seminar. In the host country, the Government of Czechoslovakia appointed the Ceská Státní Pojistovna (Czech State Insurance and Reinsurance Corporation) as the Government agency responsible for the organization of the seminar in Czechoslovakia.

2. The purpose of the seminar was to provide an opportunity for senior Government officials concerned with insurance and executives of the insurance industry in developing countries for discussions on the most important problems facing insurance and reinsurance today in the context of the objectives of economic development and of building and strengthening national insurance markets in developing countries. The discussions covered the following subjects (each of them corresponding to one of the chapters of the present report):

(i) The economic role of insurance;

(ii) Life and accident insurance;

(iii) Non-life insurance;

(iv) Marine cargo and hull insurance;

(v) Reinsurance;

(vi) Relations between the State and the insurance industry; legislation and supervision;

(vii) Insurance institutions and organizational aspects;

(viii) Insurance statistics, including applied mathematics and cybernetics.

1/ TD/B/118/Rev.1 - TD/B/C.3/51/Rev.1, para. 28.

3. In order to facilitate the work of the seminar, discussion papers were prepared in respect of each of these subjects by experts in insurance and reinsurance chosen by the UNCTAD secretariat from both developed and developing countries and socialist countries of Eastern Europe. Summaries of the discussion papers were circulated to the participants in advance. In addition, every participant was requested to prepare a contribution in writing on one of the subjects on the seminar's programme, with particular reference to insurance in his own country, preferably dealing with economic aspects of insurance and reinsurance transactions. Many participants availed themselves of this opportunity and submitted to the UNCTAD secretariat a considerable number of such country papers dealing with the various topics on the agenda. Owing to the limitations of space it is not possible to reproduce these contributions in the present report, which contains only the discussion papers prepared by the lecturers and a summary of the discussion which followed each lecture.

4. The official languages of the seminar were English, French and Spanish. Consequently, all the discussion papers and the written contributions by the participants were submitted in these three languages. The discussions at the seminar were also conducted in these languages.

5. The seminar was attended by 56 participants from 53 countries eligible for United Nations technical assistance. For this purpose, 53 fellowships were granted to participants coming from countries in different stages of development, and having different economic and social systems, in Africa, Asia, Latin America and Europe. Each country received one fellowship only. Three countries sent a second participant at Government expense. The seminar was also attended by representatives of several organizations as observers. A list of the lecturers and of the participants is given in an annex to this report.

6. The geographical distribution of the participants was as follows: Africa 22 participants, Asia 16, Latin America 12, Europe (including socialist countries of Eastern Europe) 6 participants. Thirty-four participants were senior Government officials and 22 participants were executives of national insurance and reinsurance institutions or represented national insurance associations. The keen interest of Governments of developing countries in the seminar is shown by the fact that they nominated over 150 candidates for selection as participants.

7. The present report was not submitted to the seminar for approval, but constitutes a succinct account by the UNCTAD secretariat of the main points of the discussion rather than a set of agreed statements on the conclusions reached by the participants. At the same time it should be borne in mind that the views and opinions expressed in the signed discussion papers are those of their authors and do not necessarily imply the expression of any opinion on the part of the UNCTAD secretariat.

Chapter I

THE ECONOMIC ROLE OF INSURANCE

A. Background paper by Mr. Karel Urban (Czechoslovakia)

1. The economic functions of modern insurance fall into three main division:

(a) Compensatory activity, that is, the distribution and reparation of losses by means of an insurance community (including payment of the face amounts of life insuranc policies), which is of course the main and paramount function;

(b) Efforts to prevent accidents and other casualties;

(c) The accumulation of capital, and the important part played by insurers in investmer

Compensatory function and prevention activity

General observations

2. The results of every human endeavour are threatened and at times destroyed by dangers ("risks") arising from the following sources: (1) forces beyond the control of man; (2) the action of others; and (3) the action of the person endangered.

These risks may be covered by prevention, by assistance or by providence.

Prevention would appear to be the best method, if the risk could be eliminated altogether. Actually, however, prevention is rarely so effective, especially where the forces of nature are concerned.

Assistance depends on other people. It was one of the first methods of repairing loss to be used, but has always remained uncertain or inadequate, at least when not based on the concept of social solidarity. In general, assistance makes only partial and temporary reparation. Moreover, it implies a certain degree of inferiority on the part of the person assisted.

Providence is the method most relied upon. It is exercised by the endangered person himself. In its broadest sense, providence always involves a withholding from current resources to meet future needs. Insurance is providence in its most highly developed form.

3. Among our distinguished guests there are a number from Africa, and it might not be inappropriate to mention a possible historical episode, described in the Bible, concerning the wonderful civilization of ancient Egypt.

4. Joseph's interpretation of Pharaoh's dream led to the formation of a stock of grain out of the surpluses of the seven fat years in order to meet the deficits of the seven lean years. It was necessary to create extraordinary reserves. This act of

providence, planned and executed by the authority of the State was, of course, not yet insurance. Apart from other distinguishing features of insurance, Pharaoh's action lacked its chief characteristic, namely, the immediacy of the protection afforded. Actually, what Pharaoh was doing was only saving. Saving always requires a certain amount of time for the accumulation of a sufficient quantity of funds before it can become effective, whereas insurance provides immediate protection against the uncertainties of the following day.

5. It is often thought that the only ones to benefit from insurance are persons who suffer a loss and are compensated. That is not true. The insurer's promise to compensate the insured is by itself already a service. The insurer is selling security. This is the essential element of the service he provides. By means of insurance, the uncertainty of the future as regards the possibilities of disaster and the extent of the loss incurred is transformed into a limited, relatively modest sacrifice, the insurance premium. This is a fixed amount and anyone exposed to uncertain events can include it in his budget.

A few more words about prevention:

6. The German saying, verhüten ist mehr als vergüten, expresses the basic truth that it is better to prevent damage than to repair it. In the 1920s and 30s it was sometimes argued that insurers ought not to concern themselves too much with prevention because that might ultimately bring about a decline in the demand for insurance. Today, this kind of attitude is unheard of. Prevention activity now occupies an important place in the programme of insurers the world over. The insurer does not himself produce material goods. He operates solely in the financial sphere. Where the compensation paid indemnifies for a purely financial injury (for example, in insurance against certain business losses, etc.) it fulfils the economic purpose of insurance. But where there is material damage, it is still necessary to reconstruct or restore what has been destroyed, damaged or lost. Losses of this kind always mean an impoverishment of the community, and it is in the interests of the country as a whole to eliminate or at least to minimize them. In Czechoslovakia, for example, prevention is regarded as one of the essential functions of the insurer, and it is a mandatory activity of both the Czech and the Slovak State insurance bodies by the very legislation which governs their operations (Law No.82/66, para.4).

7. For insurers in the capitalist countries, where prevention activity is not required by law, prevention is no less important. In this field, there is close co-operation by insurers (often through their professional associations) with various agencies or programmes (fire departments, research laboratories, investigation of certain techniques, etc.). Among the instruments employed to prevent fire is the premium-fixing policy. Factories which do not adopt adequate safety and protection measures find themselves penalized by the premium schedule, inasmuch as those that are properly protected enjoy substantial reductions. Similar methods are used in other branches of insurance.

Significance of insurance in the main branches of economic activity

8. We shall now examine some special uses of insurance in the production and circulation of goods, in particular in: (1) agriculture, (2) industry and (3) transport and trade; after which we shall take up (4) the sphere of personal interests, that is, the private interests of natural persons. We shall do no more than present some general ideas since the various branches and types of insurance are to be dealt with in special papers.

Agriculture

9. Although agriculture is no longer considered as the sole source of the wealth of nations (a doctrine taught by the Physiocratic School two centuries ago) it is still given much attention by Governments because it meets an essential need, the need for food. The possibilities of preventive action in agriculture are very limited. It is mainly in animal husbandry that prevention measures can have satisfactory results. Czechoslovakia can boast of great success in this sphere since the conversion of agriculture from private to collective farms. The close co-operation of the veterinary services has helped to bring about a considerable reduction in losses from "livestock mortality".

10. In farming, however, prevention is almost impossible while the crops are "standing". We are still impotent before most of the forces of nature. Hail, the worst scourge of agriculture, has been the subject of continuous research (in France and Switzerland, for example), but so far no effective protection has been found, despite some remarkable experiments carried out recently with silver iodide in France.

11. The fact that effective prevention is impossible brings out clearly the role of insurance in agriculture. The amount of damage done to agriculture by natural forces is so great that in many countries the State itself has engaged in certain forms of agricultural insurance. This is a development which is not confined to the socialist countries. In a number of capitalist countries, too, the State intervenes, for

example in France (insurance against agricultural calamities), in the United States (crop insurance), in Japan, and elsewhere. The State's role, in most of these cases, is not to replace private insurance but to supplement it. An important point is that agricultural insurance schemes now cover not only the so-called conventional risks but also risks not formerly covered, such as floods, prolonged drought, excessive wetness, spring frost, etc. This topic is elaborated in a special report.[1/]

Industry

12. Industry differs from agriculture in that it offers a vast and varied array of insurable interests. It can be said that industry, in its broadest sense, constitutes the clientele of almost all the main branches of insurance. We can even include such forms of personal insurance as the various group insurance schemes and the employers' funds to provide supplementary retirement pensions. In addition, there are the types of insurance especially created to meet the needs of industry, such as insurance against wilful damage to machinery, against certain business losses, etc. Among the various types of liability insurance, that of post-delivery liability insurance is of special importance in view of recent developments in the legal systems of some countries where consumers are protected by severe laws and regulations.

13. This leads us to the question whether it would be possible to cover generally all the risks to which a businessman might be exposed. The answer must be, no. The aggregate risk to a business, that is, the sum of all the dangers which beset the goal of the undertaking, is not insurable. To attempt to guarantee the financial success of every economic venture without regard, for example, to market conditions, would be to hinder progress. One may recall in this connexion the plan of Lassalle, the nineteenth-century German socialist, who tried to make insurance a panacea. He proposed the establishment of an "Insurance Union" which was to organize production in such a way as to eliminate risks. This was a utopian scheme which can never be realized.

14. We shall now consider the evolution of ideas on industrial insurance in Czechoslovakia, as a country of the socialist type.

15. One of the most important of the reforms carried out in the socialist countries has been the nationalization of industry. At first, this phenomenon gave rise to new opinions concerning the value of insurance for nationalized industry. In the capitalist

1/ See chapter VI below.

countries, the industrial sector usually consists of a multitude of private businesses, all of which are exposed to an appreciable common risk of partial losses. In the socialist countries, on the other hand, a single entity, the State, has become the owner of all of industry - apart from some small-scale production in co-operative, etc. The optimistic faith in the omnipotence of the socialist State, so typical of the beginning of these reforms, under-estimated the economic importance of insurance for State-owned industry. In Czechoslovakia, some circles asserted that the conclusion of separate insurance contracts was uneconomical and that all that was necessary was to impose a tax on industry to build up a common insurance fund.

16. There is no point in discussing here the spirited debates on this subject of more than twenty years ago. Suffice it to say that Law No.86/1952 categorically prohibited the insuring of State property. In the reforms introduced in Czechoslovakia in the autumn of 1966 (the new system of management and control), that prohibition was lifted. The value of insurance services was again recognized, even for State enterprises.

Prevention

17. The main concern of preventive action in industry (apart from the industrial accident risk) is the danger of fire. As we know, the results of industrial fire insurance have not been very satisfactory in recent years, and efforts have been made to improve the situation. Insurance companies can make an effective contribution to prevention when they have specially qualified staff who can investigate the individual fires and identify their causes. This is especially true, for example, of United States companies with their "engineering services" which, among other things, carry out a detailed inspection of the plants to be insured, and evaluate the precautions taken and the safety arrangements made, before any insurance contract is signed.

Self-insurance

18. Self-insurance, in which the person exposed to various risks acts as his own insurer, is theoretically possible for any risk. But it is in industry that the idea is most common, for it is there that one finds giant enterprises possessing the vast financial resources needed for the purpose. Such enterprises often entertain plans for establishing a fund, within the enterprise, consisting of the money which would otherwise have to be paid to an insurance company as premiums. Self-insurance would be possible, in principle, provided that the risks are sufficiently numerous and varied to allow the application of the law of large numbers (a multitude of units such as workshops, stores, vehicles, etc., territorially dispersed). If this condition

is not met, the fund in question does not constitute a self-insurance scheme; there is simply no insurance. Thus, when someone says that a contractor is self-insured, he is often making a mistake.

Industrial accident insurance

19. It might appear to be out of place here to touch on industrial accident insurance. This risk belongs, of course, to the category of personal insurance, and furthermore in many countries it is covered by social insurance.

20. However, it has also been dealt with in other ways as, for instance, in the United Kingdom and the United States. The nineteenth-century British "Employers' Liability Act" established the employer's liability for work accidents due to his negligence. Later, another statute, the "Workmen's Compensation Act", instituted insurance for the victims of accidents which were not the fault of the employer. The cost of this insurance are borne by the industrial enterprise. A similar approach is found in the United States. It looks upon the economic injury suffered by industrial workers (or their families) because of work accidents or occupational diseases as part of the cost of production. The price of the product must cover this item of cost just as it does similar items for wear and tear of equipment. Such an approach makes the industry itself bear the cost of this insurance.

Company pension funds

21. Perhaps this is the place to mention the various types of company funds set up for the benefit of employees of industrial enterprises. These funds are usually based on the principle of group life insurance. The cost of the insurance may be shared between the employed and the employees, but there are cases where the employer pays the entire premium. Formerly, in many a country, before the days of general social insurance, some of its purposes were served by such company funds. Nowadays, their function is usually to supplement benefits received from social insurance, particularly old-age pensions. It is clear that in this way insurance helps industry not only economically but also socially. The existence of these funds strengthens the bonds between the workers and the enterprise, and contributes to social harmony.

Transport and trade

22. Whatever is produced must be sold and must be carried to a place of consumption. These are operations in the circulation of commodities and they include transport and trade, where insurance plays a very special economic role.

23. Transport insurance is the oldest branch of the insurance industry. Since a special paper is to be presented by an expert on this subject,[1] I shall confine myself here to a brief historical sketch.

24. Certain written regulations dating back more than seven centuries refer to transactions in marine insurance in the form of bottomry loans. They are the "Rolls of Oleron" applied in Flanders, which are believed to go back to before the year 1250. At almost the same time the other cradle of marine insurance began to develop in Italy (among the Lombardy merchants). It is from there that we have a document (preserved in the archives of Genoa) which is regarded as the oldest extant insurance contract. A century later there appeared the Ordinances of Barcelona dealing with rules of marine law and matters of insurance. These ordinances governed the maritime traffic in the Netherlands also, during the period of the Spanish occupation. This explains how, for example, the word "cargo", which is Catalan, came into use all over the world. Up to the discovery of America, England was, so to speak, on the fringe of these developments. But as England gradually became the mistress of the seas, she also became the place where modern transport insurance developed. It is England which really built up this branch, with the marine insurance policy as its constant guide.

25. With the expansion of the means of transport during the nineteenth century (building of railways, increased use of inland waterways, etc.) insurers began to include land risks in their policies: liability was no longer limited to the voyage by sea but also covered the overland journeys, either separately or in conjunction with (before and after) sea transport. Thus was born the well-known "warehouse to warehouse" clause.

26. The vast increase in motor transport, which is exposed day and night to the hazards of the road, has greatly extended the insurance of overland transport risks.

27. Today we are witnessing a spectacular expansion of air transport. Insurance is adapting itself to this form of transport also, and keeping pace with coverage needs. Everyone is no doubt aware of the problems arising today from the great increase in values exposed to the risks of air transport, not solely because of the enormous cost of modern aircraft (hull risk), but also because of the liability of the carrier, particularly for passengers, since the seating capacity of these giant aircraft is being continually increased.

28. Earlier we noted how valuable insurance was to agriculture and to industry. Transport insurance goes even further. In this sphere, insurance is not merely valuable; it is indispensable. Without it, international trade and traffic on the scale we know today would hardly be possible.

1/ See chapter IV below.

29. What is the specific economic role of insurance in trade in the strict sense, that is, in the operations and transactions of distribution other than transport?

30. Let us pass over the types of insurance offering standard coverages for all kinds of clients, including, of course, businesses and banks, and look at some kinds of coverage which meet certain commercial needs. They are, principally, the following: credit insurance, surety and fidelity bond insurance, insurance against breach of trust, embezzlement and misappropriation, and naturally also various kinds of liability insurance, among others. In this last category the most interesting, in view of its very recent development, is liability insurance covering goods after delivery. Reference has already been made to this type of insurance in the section on industry. But the delivery of goods direct from the factory to consumers is not the only mode of distribution. Most often, they are separated by a commercial network (general agent, wholesaler, retailer, etc.). And each link in this chain of intermediaries is in turn exposed to this liability, depending on the laws of the country concerned.

The sphere of personal interests

31. The sphere of insurable personal interests, that is, of personal interests other than those connected with some undertaking, may be divided into the following two main sectors: (a) property and liability insurance, and (b) personal insurance (life, casualty, sickness).

32. We shall concern ourselves here only with some particular aspects of life insurance. Life insurance is of special interest not only because of its economic importance - the volume of capital it assembles - but also because of its unique origin which has no counterpart in any other branch of insurance.

33. The idea of life insurance could not take shape until after the discovery of mortality rates, something which occurred in England in the seventeenth century. Previous efforts (such as that of Ulpian[1/] in ancient Rome) had not achieved accurate results.

34. It was John Graunt, an ordinary London shopkeeper interested in statistics, who won a place in the history of insurance by being the first to investigate systematically

1/ Ulpian (170 - 228 A.D.), Roman jurist and comentator on the lex Falcidia, according to which legacies left by a testator were not to reduce the entitlements of statutory heirs by more than three-quarters of the estate. In order to evade this law, testators bequeathed life annuities. Ulpian noted in his commentary that it was necessary to determine the capitalized equivalent of these annuities, taking into account the probable longevity of the legatees. He attached to his commentary a table giving life expectancy figures for different age groups. Ulpian probably derived these figures from the information in the records kept in the Roman temples.

the phenomenon of the incidence of death among persons of the same age group. For th... purpose he analysed the mortality data ("bills of mortality") of the population of London. The data in these "bills" were not always precise, and consequently the mortality table drawn up by Graunt was only approximately correct. Nevertheless, the method he employed was the right one. After Graunt, Edmund Halley, the Astronomer Royal, drew up an accurate table. Halley published this table in 1693 in his book entitled "An estimate of the Degrees of the mortality of Mankind drawn from the curious Tables of the Births and Funerals of the city of Breslau", The more precise information contained in the records kept by the city of Breslau made it possible to construct a much more accurate table, and, of course, the name of the famous astronomer somewhat overshadowed that of the simple London shopkeeper. There is no doubt, however, that the credit for this discovery must go to Graunt. Five years from now, in 1974, life insurers will be commemorating the three-hundredth anniversary of his death.

35. After this historical outline, let us return to the subject of the economic role of life insurance. It is part of the very notion of life insurance that it is the duration of life which is the criterion for measuring the risk. This risk must be conceived of in two ways: from the point of view of the insurer it may mean both the risk of death and the risk of survival (the latter particularly with respect to endowment insurance).

36. What interests are covered by life insurance? The value of a man as a living being cannot be expressed in terms of a sum of money, whatever the amount. It is the economic goals linked to a man's life which form the subject-matter of life insurance.

37. Of all the different kinds of insurance, straight life insurance may be considered the least selfish, for it is always a person other than the insured who is the beneficiary. This form of life insurance always aims at the protection of the economic interests of those who are dependent on the insured. Before the introduction of social insurance systems, life insurance afforded the best protection for dependants, and it still does in so far as it supplements other forms of security (social security, company pension schemes, etc.).

38. The second main role of life insurance is that it is a form of saving. Life insurance meets the need for saving by offering a host of different types of insurance which serve this end (the most common being "ordinary" life insurance). This insurance

is the type that is the most popular throughout the world, and it is this kind which is the principal source of the insurer's mathematical reserves. However, the role of life insurance as a method of saving has nothing to do with its purely compensatory role, with which this section is concerned. We shall revert to the former aspect in the next section, concerning investment. We may note in passing that a life insurance policy is often an indispensable element for obtaining credit, even in the very simple form of term insurance. However, in connexion with the repayment of a mortgage or the building of a house, use is often made not only of the term insurance mentioned above, but also of various combinations of ordinary life insurance (home savings insurance, mortgage insurance, balance-due insurance, etc.). The outstanding role of life insurance in this connexion is dealt with in a special paper.1/

39. The main differences between life insurance and all other kinds of insurance may be summarized as follows:

(a) In life insurance the occurrence of the event insured against is always certain;

(b) In life insurance the loss suffered is always in the nature of a total loss; there are no partial losses;

(c) Since life insurance belongs to the category of fixed-sum insurance, no assessment is made of the loss suffered: the insurer is required to pay the full agreed amount;

(d) Life insurance rates are established on the basis not only of statistical data (mortality tables) but also of the technical interest rate (bases of computation);

(e) The risk of death increases for each person as he grows older. The life insurance premium, on the other hand, is calculated in such a manner that it remains unchanged throughout the term of the insurance (or it is even successively reduced - as in the case of so-called descending scales of rates). This necessitates the setting up of mathematical reserves - even for the temporary kinds of life insurance. When the life insurance contract also includes savings, the establishment of such a reserve is naturally all the more important;

(f) The existence of this mathematical reserve makes possible a reduction in the face amount of the insurance policy or its surrender in the event of cancellation (but this is possible only after a certain lapse of time, which is specified in the conditions);

(g) The insurer is not entitled unilaterally to cancel a validly concluded life insurance policy, unless the premiums are not paid when due.

1/ See chapter II below.

Insurance companies and investments

40. The investments of all the insurance companies in the world amount at present (1970) to something like $400,000 million. Some four-fifths of this vast sum represent coverage for the mathematical reserves of the life insurance branch.

41. Obviously every company, while conforming to whatever legal provisions govern investment policy (especially in the life insurance branch), endeavours to place its investments where they will be most productive. And since it very rarely happens that investment in a single security simultaneously meets the three basic tests of safety, income and liquidity, we find that insurers' portfolios often contain a very wide variety of securities. This dispersal of investments is in itself an element of protection and safety.

42. All that has just been stated applies, it must be said, solely to the capitalist countries. In the socialist countries the situation is radically different. In Czechoslovakia, for example, where the State does not issue any securities, where mortgage credit and a money market do not exist, and where industry is at present financed solely by bank credits, the possibilities of investment for the Czech and Slovak State insurance entities are extremely limited: in fact their only investments at present are bank deposits. This certainly simplifies things but at the same time it constitutes a substantial restriction of income possibilities.

43. To revert to the capitalist countries: in those countries insurers, although required to observe the provisions of the law, still have every latitude to make a free choice of varied investments, especially in the sphere of long-term credit.

44. What is significant is that the capital accumulated by the insurance companies does not remain idle. It represents resources available for production. Insurance operates as a tool of capital formation when it brings together and turns into capital small sums of money which would otherwise have remained unused or have been spent. This applies particularly to life insurance companies, for these, as we know, are not exposed to the same variations in the occurrence of claims as companies engaged in other branches of insurance. Consequently, they do not usually need to mobilize their reserves in order to meet their commitments towards the insured or their beneficiaries. So long as business is normal, the premiums currently collected are more than sufficient to cover these disbursements. It is for this reason that life insurance concerns are precisely those capable of making long-term investments.

45. Thus, above and beyond the services it renders to its customers, that is, the individual insured persons, insurance also fills an extremely important economic role as an accumulator of capital, from which the entire country benefits.

Social insurance

46. Social insurance, also, may accumulate large amounts of capital for long-term investment contributing to economic development. This is only possible, however, where the social insurance system operates on a capitalized basis. There are, broadly speaking, two main systems of social security, particularly as regards old-age pensions. There is the orthodox system - social insurance in the real sense of the term - which is based on actuarial principles and characterized by the assessment of contributions and the setting aside of mathematical reserves. One of the most modern examples of this system is to be found in Sweden. The other system has neither contributions nor mathematical reserves: it is the system of budgetary allocation, where the annual costs are covered by the State budget. This is the system in force, for example, in Czechoslovakia. There is also what might be considered a third type, which is characterized by the assessment of contributions (from employers and employees), supplemented in part by State appropriations, but which has no mathematical reserves. An example of this is the present system in Britain.

47. There are good theoretical argumemts both for and against each system. But the problem here is not merely an actuarial one: it is at the same time an economic and political problem. Leaving aside the purely financial aspects, we find that basically social insurance involves striking a balance between the needs of the inactive sector of the population, on the one hand, and the surplus in excess of the needs of the active sector, on the other. In other words, the working part of the population supports the non-working part. When the matter is viewed in this light, it is fair to say that those who oppose systems involving capitalization are to some extent justified in maintaining that the accumulation of mathematical reserves is unnecessary, and that what is decisive is the healthy and continuous development of the entire national economy. But what they often fail to realize is that where the capital constituting these reserves has been carefully invested, it does in fact contribute to economic development and to the creation of real values. It is regrettable that purely economic and technical considerations can be erased by political arguments.

48. Actually, in the world today, there are different versions of the two main systems of social insurance. Some of these came into existence in the years followin the Second World War or have been introduced quite recently. In a few more years it will be possible to compare them and to assess their merits and their defects. It is, however, clear, even now, that the abandonment of schemes involving capitalization has done irreparable harm to the very countries which need capital, for it has eliminated an important source of capital for long-term investments.

Effects of the economy on insurance

49. Up to now we have been examining the benefits of insurance to the economy. It would be appropriate at this stage to consider also the opposite relationship - the repercussions of economic phenomena on insurance. Insurance gives, but it also receives, and it receives when it is influenced by economic changes.

Monetary stability

50. In most countries inflation is a very frequent subject of discussion at the present time. Insurance, itself a stabilizing and anti-inflationary factor (in that it freezes a portion of the current purchasing power), suffers from any monetary depreciation. Life insurance, in particular, with its long-term contracts, is especially vulnerable. We are all aware of the cases of disastrous inflation in which the value of the monetary unit tumbled to a tiny fraction of its original value, and of various monetary reforms which were almost tantamount to confiscation. Such episodes have always been extremely harmful to insurance in the eyes of the public, and insurers have had to make great efforts in the sphere of public relations to restore faith in insurance after it has been shaken through no fault of their own.

51. Today, it is true, we no longer see rampant inflation verging on catastrophe. What is disquieting, however, is the slow and continuous erosion of the value of the currency in certain countries. And the most disquieting thing of all is that this erosion is sometimes accepted as an incurable disease. When we read, for example, that some American economists foresee a regular depreciation of the dollar at the rate of 2 per cent per annum and describe this phenomenon as a "growth factor", we cannot but conclude that this chronic erosion has been accepted as inevitable.

52. Insurers are naturally seeking safeguards against this depreciation. As early as the 1930s they began to conclude some contracts tied to costs, starting in the fire insurance branch, where reciprocal commitments were tied to the index of building costs.

In other branches, too, insurers have had recourse to such policies. Last year we read about some Italian life insurance policies based on the stock-market index. The spread of various ways of participating in "unit trusts" is no doubt also due, at least in part, to uncertainties about the fate of the currency.

53. All these defensive measures can only partially offset the drawbacks of monetary depreciation. Inflation always defeats the purpose of insurance. Stability of the purchasing power of money is a basic requirement for the satisfactory functioning of insurance and its capacity wholly to fulfil its economic role.

Economic cycles

54. In periods of prosperity, it is easy to sell insurance, the total amount of insured capital rises, and premiums are paid regularly.

55. In times of depression, however, insurance feels the effects of the disturbance of normal conditions: few new policies are taken out, business declines, the fall in the value of interests exposed to risk necessitates refunds (cancellations increase).

56. Another consequence of economic crisis is seen in the claims rate (the ratio of losses to premiums). In times of depression, this rate usually rises. This phenomenon, which is affected by psychological factors, is particularly evident in the sphere of property insurance. It might seem unlikely that such repercussions should be felt even in social insurance. Nevertheless, such effects have actually been observed. In 1927, a Prague professor[1/] published an analysis of statistical data showing a correlation between the development of unemployment and that of sickness among workers. This analysis revealed a tendency among the working population, when threatened by unemployment, to escape the worst consequences of the economic crisis by this means.

Abundant production and adequate supply on the goods and services market

57. We must now consider one more point or, rather, one more economic condition which is essential if insurance is fully to serve its purpose with regard to property. There must be a sufficiently saturated free market, having an abundant, or even surplus, supply of goods and services so that an object that has been destroyed, damaged or lost may be speedily repaired or replaced. Let us look at an example:

58. An insured house is destroyed by fire. In a country where the building industry functions efficiently, unhampered by a shortage of materials or manpower, or by uncalled-for interference from high-handed state authorities, physical reconstruction

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1/ Dr. Jaroslav Janko, in a report on the periodicity of sickness and unemployment, presented to the Eighth International Congress of Actuaries in London.

(restoration, to the condition prior to the casualty) is only a matter of having sufficient resources, and these are forthcoming from the compensation paid by the insurer. On the other hand, in a country where the conditions in question are not satisfactory, the injured person will, it is true, receive the compensation payable, but the physical restoration of the damaged property may often be rather difficult or at any rate considerably delayed.

59. This is but one of many possible examples and the subject, naturally, is not confined to damage from fire. Similar difficulties may arise wherever there is a question of the repair of physical damage. We know, for example, what special complications may arise when it is necessary to obtain spare parts for motor vehicles, etc. As regards the insurance of items whose replacement or repair can only be effected through deliveries from abroad, consideration could be extended to include such questions as exchange regulations, currency convertibility, and so on. However, such aspects are beyond the limits of our subject.

60. I hope that the few examples given have sufficiently shown the close connexion between insurance and a country's economic life. Insurance is an index of a country's economic conditions and even of its civilization. The more highly developed a civilization, the greater are the risks; the more necessary, then, does insurance become, and the more developed and widespread it is.

61. It is true that the position of insurance in a country depends also on that country's political structure. The question of "Insurance and the State" covers a great many very interesting points, and this topic forms, in fact, the subject of a another paper.[1/] No-one, I am sure, today questions the value of State supervision of insurance. But this necessary supervision must not be confused with a rigid control by the State, claiming the right to interfere directly in the management and even the day-to-day operations of an insurance organization. Every insurance company, if organized and operated as a commercial undertaking, must have room to pursue its activities and make its own decisions.

62. The same atmosphere of freedom should likewise prevail among all the customers of insurance, permitting them to govern themselves in accordance with their own needs.

B. Summary of discussion

63. Many participants emphasized the importance of insurance as an economic activity providing protection to individuals, industry, agriculture and other sectors of the economy by spreading the financial burden of such protection over a wide community.

1/ See chapter VI below.

They recognized that, by the nature of its economic activity, insurance has some important social effects, which ought to be considered inseparable from its main economic functions. The developing countries should therefore attach special importance to measures aimed at the establishment or strengthening, as the case may be, of their national insurance markets in order to provide the insurance services that may be required at a reasonable cost. Under the conditions of growing demand for insurance in developing countries the efficiency and better organization of insurance services are of great importance.

64. Practically all the participants who spoke on this point emphasized that it was for each developing country to decide which institutional system of insurance to adopt. While some speakers from developing countries referred to the role that may be played by the private sector in achieving the goals of the national insurance markets, other participants stressed the role of the public sector. Some of the latter stated that their countries (e.g. India, Ceylon, Tanzania, Iraq, U.A.R.) adopted an institutional form of organization of their insurance services, based partly (for some branches) or entirely on a State monopoly. According to several speakers, direct State intervention represents an obvious solution in cases where without such intervention, a national insurance market does not seem to be materializing quickly enough.

65. Participants from the socialist countries of Eastern Europe explained that in the context of a socialist economy, based on the social ownership of the means of production, insurance services were organized in the form of a State monopoly. In such an economy, the investible funds of the insurance industry became readily available for use in conformity with the general economic plans of the country. This was the position irrespective of whether the insurance services in a socialist country were provided by one or by several institutions. In the case of one socialist country it was stated that its insurance institutions could potentially compete with each other.

66. According to many speakers, in most countries insurance and reinsurance services, whether nationalized or private, were organized on commercial principles, though in some countries the earning of profits was not necessarily the principal objective of insurance services. Profit-making and non-profit-making forms of insurance may exist side by side within a given insurance market. It was pointed out in this connexion that non-profit-making forms of insurance services, such as mutual or co-operative

insurance societies, might have a special appeal to a developing economy and more particularly to its agriculture, where the demand for such services was still largely unsatisfied.

67. With regard to the much discussed problem of insurance capacity, i.e. the ability of an insurance market to provide sufficient cover for all risks offered to it, several participants considered that recent reports in the international insurance press did did not seem to cover the problem adequately. In their opinion the magnitude of the insurance capacity problem had been exaggerated, especially with respect to the capacity of the international insurance market. The sharply rising trend towards risks of very high values, in consequence of economic concentration and of technological development, undeniably raises serious problems for the insurance industry. However, it was thought that the capacity problem had been viewed until now, too much against the background of the unfavourable technical results recorded in the past several years by insurers and reinsurers in the developed market economy countries, especially with respect to business originating in those countries.

68. Fear were expressed that the deterioration of the underwriting results in certain areas might lead the main international insurers and reinsurers to harden in a general manner their terms and conditions. As a result, the developing countries in which insurance business trends continue to be favourable might be required to provide a compensatory cushion for the unfavourable business results experienced in developed countries. This in turn would have undesirable repercussions on the balance of payments of the developing countries concerned.

69. On the subject of the potential contribution of insurance and reinsurance to economic development, a number of participants underlined the importance of effective insurance supervision over the financial stability of the insurance concerns and the technical methods applied by them. This question is more thoroughly dealt with in chapter VI below.

70. Some participants referred to the regrettable absence of the insurance sector from many economic development plans in developing countries. It was stated that insurance, by providing the essential security, encouraged enterprises to undertake long term commercial and industrial activities; at the same time, insurance was an effective instrument, through the funds which it could mobilize for the financing of all kinds of economic projects. Higher priority and greater importance should therefore be given to insurance in the national development plans.

71. With regard to the influence of international insurance and reinsurance transactions on the balance of payments of developing countries, some participants considered that the net outflow was not the only material factor. Whenever there is a time lag between the respective gross outflows (mostly premiums) and inflows (mostly settlement of claims) resulting from international insurance and reinsurance transactions, then the longer is the time lag and the higher the rate of interest for loan capital, the more burdensome the operation becomes for the economy of the developing country concerned. If the insurers in developing countries retained in these countries the technical reserves (for unexpired risks, for outstanding claims, etc.), then such outflows of funds from developing countries would be considerably reduced and would not tend to become tantamount to capital exports.

72. In the light of these factors, the participants considered whether greater and better use could be made of the national retention capacity, with a view to lessening dependence on reinsurance abroad. It was generally felt that many insurance portfolios in developing countries satisfied the technical requirements for higher retention limits, owing to sufficient diversification of risks and sufficiently high safety margins. Whilst recognizing that it was advisable to follow cautious reinsurance policies and to limit the retentions up to a technically sound point, some participants emphasized that an excessively cautious approach, going beyond what was technically necessary, was detrimental to the economy as a whole. At the regional level, increased exchange of business among developing countries was advocated, but some participants pointed out the lack of information about the underwriting facilities offered by other developing countries and the lack of co-ordination among themselves. This prompted a number of participants to request that market information be collected and provided by competent international organizations.

73. Practically all the speakers from developing countries referred to the unfavourable consequences of inflation with regard to insurance. They said that the impact of inflation was particularly severe in those branches of insurance where the contracts were of a long-term nature, such as life insurance, or where the claim settlements were spread over many years, as in the case of third party liability insurance, the latter being affected by inflation through the higher monetary value of losses because of growing costs of repairs, higher court awards etc. In their efforts to mitigate the damaging effects of inflation, the insurance and reinsurance institutions resort to a number of measures. Three specific groups of measures were mentioned in this

connexion: (a) devising the investment policy in such a manner that the assets invested retain their real values and appreciate pari passu with the inflationary rise in prices; (b) introduction of various index clauses in insurance policies and reinsurance treaties; and (c) more particularly in life insurance, linking insurance operations to equities and unit trusts operations. With respect to developing countries, it was pointed out, however, that the possibilities of applying these measures, and especially those mentioned in (c) seemed to be rather limited.

74. The question of inflation and its harmful repercussions on long-term insurance business was considered in particular against the background of the important savings component usually present in life insurance and the necessity of promoting savings in the developing countries in order to mobilize funds for investment. It was pointed out in this connexion that the savings rate, as compared with the domestic GNP, was much lower in the developing countries than in the developed countries and that in any case, this rate was too low to fill the needs for financial resources for investment. It was observed in this connexion that the corresponding rate of personal saving in the Latin American region was actually negative in recent years. Accordingly the importance of making life insurance accessible and attractive to the public was generally recognized.

75. Many speakers urged that greater importance should be attached to loss prevention by both the insurance industry and the State. It was emphasized that measures for preventing losses might reduce considerably the unfavourable loss experience recorded in recent years in both developed market economy countries and many developing ones. Moreover, such measures would have the favourable consequences of lowering the cost of insurance services and of enhancing their effectiveness. Loss prevention was said to be perhaps more important in the context of the whole economy rather than within insurance industry as such or within individual insurance institutions, not only because the community had a greater interest in loss prevention or because part of its interests were not insured, but also because loss preventive measures might be more effective if applied on a national or even on an international scale (e.g. cargo security, aviation risks, pollution of the sea by crude oil, etc.).

Chapter II

LIFE AND ACCIDENT INSURANCE

A. Background paper by Mr. Ananthachari Rajagopalan (India)

Life insurance

1. As in other fields of human activity, in insurance also, invention came in response to need. Trade and commerce between countries are known to have existed from very early days of history. These entailed transport of goods by sea, often over long voyages. Since the risk of loss of the ship and/or the cargo by natural perils or capture by pirates was ever present, the need for protection against the economic consequences of those perils arose. Marine insurance of a sort was therefore known to the ancients, and the foundation of even modern marine insurance was well laid by the Italians as long ago as the fourteenth century. As can be seen from the following quotation from an unknown author, similar needs seem to have given rise to short-term insurance on human life, though strictly speaking the transaction is more akin to accident insurance:

> "Notice will be taken of what is practised in this country by those who undertake distant voyages, as to the coast of Italy, Constantinople, Alexandria or other like voyages in the Mediterranean and Atlantic seas, on account of the fear which they have of the galleys, fustes, and frigates of the army of the Turk, or corsairs who make a traffic of the sale of Christians whom they capture as well on the seas as on land, which creates an occasion for the masters and captains of this country, when they undertake such voyages, to stipulate with their merchant freighters or others for the restitution of their persons in case they are captured and this they can do even for the people of their crew. In such a case the master must in the policy estimate his ransom and that of his companions, at so much per head, declare the name of the ship, the stay or touchings which it will make, the duration of each stay and as to whom the ransom is payable. The ensurer is bound to pay the sum for the ransom fifteen days after verification and certification of the captivity without waiting for the usual two months delay and without other formality of seeing freitage, bill of lading or charter partey;"

Later, in the seventeenth century temporary assurances seem to have been granted in Britain in connexion with financial transactions. Scientific life insurance, an expression with which we associate long-term cover with annual premiums depending upon age entailing accumulation of reserves periodical actuarial valuations and distribution of surplus as bonus, was however born only in the eighteenth century.

2. The reason for the late emergence of life insurance, or rather scientific life insurance, is two-fold. First, there was no compelling demand from trade and commerce

for such insurance, as was present in the case of marine or fire insurance. Also, until a couple of centuries ago the conditions necessary for life assurance to flourish did not exist. Life insurance is essentially a long-term contract. It involves payment by the policy holder of premiums over a period of years and trusting that, when the time for payment comes, the insurer will be willing and able to honour the contract. This required conditions of general economic stability and a high degree of sophistication in financial and corporate matters. Another contributory reason was that actuarial science, which is the basis of life insurance, did not emerge as a science until the eighteenth century.

3. The following quotation from Equitable Assurances by M. E.Ogborn explains succinctly why life assurance came when it did:

> "Life assurance was born in the middle of the period in England from 1740 to 1780 which has been called Johnson's England. Here, as Trevelyan says, was:
>
> > 'a Society with a mental outlook of its own, self poised, self judged, and self approved, freed from the disturbing passions of the past, and not yet troubled about a very different future which was soon to be brought upon the scene by the Industrial and the French Revolutions.'
>
> "Those engaged in mercentile, industrial and professional occupations subsisted on incomes or earnings which would be cut short by death. The premature death of husband or father might reduce a family to extreme poverty and distress. There was a need for life assurance protection, which was probably most keenly felt by a provident and thrifty section of the community, though there were many uses for such protection in financial transactions of various kinds.
>
> "It appears, then, that life assurance came when it did because the climate was favourable; England was prosperous; the mathematics of life contingencies was at hand; and there was an unsatisfied demand for the protection that life assurance can give".

4. Scientific life insurance was born with the establishment in 1762 in England of the "Society for Equitable Assurances on Lives and Survivorships", the first insurer to transact insurance business on scientific lines. With this example before them, and the principles of actuarial science already well known, it was only a question of time before others emulated the example of the £Equitable". Life assurance spread rapidly, and today there are hundreds of insurers all over the world spreading their protective wings over millions of policyholders.

5. With the rapid development of actuarial science, fashioning of different types of cover to meet the varying needs of the public was not difficult. Today life insurance gives a variety of insurance protection whose range is truly amazing.

6. Among the more important developments that have occurred in this branch are:-

(i) Payment of equitable surrender values;

(ii) Incorporation of a non-forfeiture clause, that is, when a premium due is not paid the policy does not lapse but is kept alive for a reduced sum assured; alternatively loans are advanced out of surrender value;

(iii) periodical actuarial valuations and distribution of bonus;

(iv) issue of with and without profit policies (earlier, bonus was fortuitous);

(v) industrial assurance and collection of premiums at the door;

(vi) non-medical business;

(vii) group insurance schemes;

(viii) pension funds, either domestic or in collaboration with insurance.

7. Perhaps the most noteworthy development in recent times is the emergence of unit-linked and equity-linked policies. It is an attempt to relate the sum assured, wholly or in part, to something other than the currency of the country (either shares or units of a Unit Trust) and thus offset the effect of inflation. The objective is no doubt laudable. Many have had the bitter experience of finding that the provision they so thoughtfully made for their old age had been eroded by inflation. The weight of insurance opinion, however, seems to question the utility and even the wisdom of this step. What the unit trusts can do, the arguments runs, insurers can do better and a better course would be for the insurers themselves to invest more heavily in equities and other investments which are traditionally considered to be a hedge against inflation. It is also pointed out that a fall in the price of equities can occur during times of inflation and a policyholder in such cases may lose both ways.

Accident insurance

8. Though in popular conception it is considered synonymous with Personal Accident Insurance, the expression "Accident Insurance" is used to cover insurance other than purely "Marine", "Fire" or "Life". It is the most recent of the four and could be said to have germinated with Personal Accident Insurance about the middle of the last century. With the arrival of mechanised transport, the need for protection against accidents was felt, and several offices came to be established to transact this class of business. From this to other classes of accident business was a natural development. With the increasing complexity of modern life, new types of covers became necessary. So long as it could be proved that there was an insurable interest, and no moral hazard was involved, no call for protection was beyond the ingenuity of the underwriter. Among the risks known to have been covered are the loss of voice by a soprano, accident to the leg of a dancer, birth of twins and failure to take

the family name. These could not be termed a modern development. The older generations of underwriters were no less imaginative. Nearly two centuries ago a policy was issued to the Governor of Fort Marlborough in Sumatra against the loss of the Fort by its capture by the enemy.

9. Though technically no different from other types of miscellaneous insurance, aviation insurance bids fair to be the most troublesome because of the immensity of the individual risks. The accumulated risk on a jumbo jet carrying upwards of 400 passengers is truly colossal.

10. The very definition of accident insurance gives an idea of the variety of risks involved. An indication is given under the head "types of insurance business".

Economic prerequisites

11. An economy where the individual is free to acquire and dispose of property is implicit in any discussion on (commercial) life assurance. The development of insurance in such an economy depends upon a variety of factors of which the more important are the need and the means.

12. Ignoring variations due to factors like family composition, it is evident that the higher the standard of living obtaining in a society the greater is the quantum of insurance taken out. There is, therefore, a high positive correlation between the per capita income of a country and its per capita life assurance. The per capita insurance depends also on whether there are schemes or measures by the State relieving the individual of burdens which he would otherwise have to shoulder and thus lessening the need for insurance. Free education, old age pensions, free medical benefits are some of the instances. It is necessary to bear this in mind while comparing figures of per capita insurance.

13. An individual does not always have the means to take out as much insurance as he needs. This is true even in the richest of countries, as even there a section of the population lives under conditions of poverty. It is, of course, more true in the case of developing countries; when one lives at subsistence level the needs of the present always loom large and insurance tends to be neglected.

14. It may be noted in passing that social environment - perhaps an example of subjective need - may affect the attitude towards insurance. In India, life insurance has made commendable progress, but one hardly ever buys annuities. An Indian's duty towards his family never really ceases, and the term "family" has a wider connotation than in the West. Converting capital into a wasting asset is therefore anathema to him. On the other hand commuting the pension is common.

15. For life insurance to thrive, it is necessary that there should be general stability, including economic stability. Even more important, people must have faith in the future. Since life insurance has to be sold - it is not bought - if there is the slightest doubt that the sacrifice one is being asked to make may be a waste, life insurance will dry up.

16. From the insurer's point of view, if he is to function effectively, he must have the freedom to operate on sound insurance principles untrammelled by irksome restrictions and be able to invest the funds to obtain the maximum yield consistent with security of the capital.

17. A serious threat to the progress of life insurance in developing countries is inflation. There have been periods of inflation in the past in developing as well as developed countries without any adverse effect on the progress of life assurance. But if the inflation is severe and prolonged, this may not hold. If the policyholder realises that the purchasing power of the proceeds of the policy on maturity would be very much less than the things he is currently being asked to forego, he is likely to shy away from life insurance. Of course, inflation needs to be curbed for other reasons as well.

Types of life and accident insurance

Life insurance

18. The most popular types of contracts in life insurance are:

(i) whole life policies,

(ii) endowment assurance policies,

(iii) temporary assurance policies, and

(iv) annuities (immediate, deferred and guaranteed).

19. The prospectuses of insurers contain many more. It will be impossible to list them all. Nor is there any need to do so as they are fundamentally no different from these basic types and are in fact mostly combinations of two or more of these basic types. Two of them, however, might be mentioned. One is the "family income policy" under which, on the death of the assured, an annuity is paid for the balance of the original term, at the end of which the sum assured itself is payable. This is useful for a young man starting life. The other, which goes by different names, is basically an endowment assurance policy with an option to purchase an annuity at specified rates. Such a type of policy is useful in planning for retirement.

20. Group insurance has made considerable headway during the present century. It enables employers who are unable to set up separate pension funds to provide for

retirement benefits for their employees and death cover during service. The term "group", which earlier meant employees of a particular employer, has now assumed a wider connotation. Premiums under a group policy are lower because of the savings in expenses.

21. Mention has been made earlier of the emergence of unit-linked and equity-linked policies. There are variations in the contracts offered, but the following broad features are present in all of them. Every insurer retains a portion of the annual premium payable to cover expenses and mortality and invests the balance in units of designated unit trusts. If any dividends are received they are utilized to purchase additional units. The sum assured payable is not, therefore, in terms of money but in terms of units in a unit trust.

22. Another variation, which is not, however, very popular, is to link the sum assured to certain share values.

23. This approach has been carried to pension funds also. The Teachers' Insurance and Annuity Association of America was the first to introduce such a plan. Premiums were used to purchase units in an accumulation fund invested wholly in ordinary shares, but in recognition of the fact that share prices do not always move instep with the cost-of-living index, not more than half of a member's contribution may be invested in the variable annuity fund; the rest must go into a fixed benefit fund.

<u>Accident insurance</u>

24. The varieties of risks that require cover in the modern world are countless and so are the types of policies in accident insurance. Though there is considerable overlapping, they may broadly be classified into the following groups:

<u>Insurance of person</u>

(a) Personal accident, disease and sickness

(b) Baggage insurance, goods in transit

(c) Insurance of cameras, keys, documents in transit, money in transit, glass, television, costly apparatus, etc.

(d) Motor vehicles insurance, including trailer caravan insurance, aviation losses

(e) Horse-drawn vehicles and pedal cycles insurance

(f) Insurance against damage due to storm and tempest, floods, hailstorm, subsidence, earthquake and lightning, bursting or overflowing of tanks or pipes, impact damage to buildings by vehicles and cattle

(g) Livestock and bloodstock insurance

Insurance of liability

Under this head also come many of the types of the insurance mentioned above: In addition the following may be mentioned:

(a) Public liability, products liability and property owners' indemnity

(b) Personal liability, professional indemnity

(c) Sporting guns insurance

(d) Petrol pump insurance, lift insurance, engineering and contractors' risks, sportmen's indemnities

(e) Employers' liability

(f) Aviation third party liabilities

Insurance of interest

These include:

(a) Contract guarantees

(b) Credit insurance

(c) Export credit insurance

(d) Fidelity guarantee

Contingencies insurance

This is a very wide class of which the following are examples:

(a) Licence insurance

(b) Weather insurance

(c) Missing documents

(d) Missing beneficiaries

(e) Defect in title

(f) Restrictive covenants

(g) Libel insurance.

Technical bases and elements of live and accident insurance

Life insurance

25. In life insurance, the principal elements that enter into the construction of premium rates, and into the periodical actuarial valuations as well, are mortality, interest and expenses.

26. The choice of a mortality table is usually not difficult, as the mortality experience of similar lives is generally available. There has been, in the recent past, a steady decrease in mortality rates; this is a satisfactory feature in the working of life insurance, whether in connexion with the preparation of the rates of

premium or in the periodical actuarial valuations, because the benefit of such improvement goes to the policyholders. Improvement in mortality, however, affects annuity business adversely.

27. The choice of the interest basis, particularly for non-profit business is admittedly difficult. Interest rates can vary and have in the past varied a good deal; in fact in the early years of the present century some actuaries even speculated whether insurance business would be possible if money did not earn interest at all. Today, with interest rates rapidly rising, there is no problem; but if and when interest rates should begin to fall, the problem will be how to maintain the bonuses.

28. In regard to expenses it can, generally speaking, be said that life insurance companies have been running their business quite economically. During the early years of its existence "the Equitable" spent only 2 per cent of its premium on expenses. Conditions admittedly have changed a good deal since then. Yet it can be claimed that even now life insurance business is being managed economically. In regard to the future, inflation and allround increase in wages are bound to push up costs, but these could be offset by improving techniques and large-scale use of computers.

29. The bases employed in framing premium rates for with profit and non-profit policies are not necessarily identical. Since with profit premiums are loaded specifically for a bonus, it is not necessary to have as much additional safety margins as in the case of non-profit premiums, bonuses being the first line of defence in the event of an adverse experience. For example, it is usual to assume a lower rate of interest in framing non-profit rates than in computing with profit rates.

30. Under the insurance laws of most countries periodical actuarial valuations to verify the solvency of the life insurance companies are compulsory. In actual practice, the financial strength of most companies being in no doubt whatsoever, the periodical valuations are in effect more a means of regulating the emergence of surplus. It is usual for insurance companies to conduct internal valuations annually on an experience basis in order to determine whether the bonuses that are declared as a result of the published valuations are capable of being maintained in the future.

Accident insurance

31. The standard insurance technique of framing the premium rates on the basis of an analysis of the past experience is not capable of application over the entire range of accident insurance. First, except for certain classes like motor insurance and workmen's compensation insurance, the available data are meagre. Even where data are available it may happen, as has in fact happened in motor insurance, that for a variety of reasons, the claims experience is out of date before it is compiled and can at best serve only as a basis for forecasting the future. There is, however, this compensating advantage that the contracts are mostly for short periods, generally not exceeding a year, and if it is felt that the premium rates are inadequate they could be altered.

32. Nevertheless, an "expected claim ratio" or "claims frequency" is the basis of underwriting. This may be derived from an analysis of past data as in the case of motor insurance, workmen's compensation, etc., or it may be based on the subjective judgment of the underwriter.

33. Once the expected claim ratio is determined, the rest is routine; to the net premium determined on the basis of the expected claim ratio is added a provision for commission, expenses and profits and margin for fluctuations.

34. Earlier, I referred to the very wide variety of covers which underwriters in this class of business are called upon to provide. There can be no past "experience" in the case of risks like that of a person failing to adopt the family name. The cover has still to be provided and the underwriter has necessarily to rely on his hunch (or the practice in the past): this is not so unscientific as it sounds because the underwriter's hunch is only another name for judgment based on knowledge and experience. That underwriters have never flinched from granting cover for the most unusual of risks so long as they were convinced that there was an insurable interest and a genuine need speaks volumes for the high traditions of insurance.

35. Motor insurance, where the claims experience has been showing a disturbing trend, has recently claimed a good deal of attention on the part of insurers. One suggestion that has been made to combat high claims is to adjust the premium either up or down, depending on the past claims experience of the policyholder. Fundamentally, this is only a variation of the "no claim" bonus. If pushed too far, any system of rewarding the "careful" and punishing the "careless" becomes one of rewarding the fortunate and punishing the unfortunate and thus the very opposite of insurance.

36. The reserves required to be held by companies at the end of each financial year are in many countries laid down by statute; companies have to provide for "technical reserves", namely for claims outstanding and for reserves for"unexpired risks". In the United Kingdom the customary reserve for the latter is between 40 and 50 per cent of the premium income shown in the revenue account. Companies have, of course, substantial general reserves in addition to departmental reserves.

37. It cannot be assumed that the reserve for unexpired risks calculated on the customary basis will always be adequate. While in life insurance policy liabilities are calculated by forecasting the future, in general insurance the reserve is merely taken as a percentage of the premium income. This departure from strict theory does not matter; the contracts are for short terms and any insufficiency in reserves would automatically be corrected next year.

Investment of funds generated through life insurance

38. When framing premium rates for life assurance, the actuary assumes that the funds will earn a minimum net rate of interest. Failure to earn this rate would result in the insolvency of the insurer. Also, interest yield in excess of the "assumed" yield is an important source of surplus distributed to the with-profit policyholders as bonus. A sound and, at the same time, enterprising investment policy is thus vital to the progress of a life insurer.

39. Investment, as Raynes observed in his book Insurance Companies' Investment, has indeed two sides. Like the quality of mercy it is twice blessed; it blesseth him that gives and him that takes. While investments of life funds, which are virtually trust funds, are made solely in the interests of the policyholders, they have played a notable part in the economic development of several countries.

40. From 1862 till the twenties the principles formulated by A.H. Bailey for investment of life funds held undisputed sway. Bailey's canons, as they were called, were:

(i) That the first consideration should invariably be the security of the capital;

(ii) That the highest practicable rate of interest be obtained, but that this principle should always be subordinate to the previous one, the security of capital;

(iii) That a small proportion of the total funds (the amount varying according to the individual circumstances of each case) should be held in readily convertible securities for the payment of current claims, and for such loan transactions as may be considered desirable;

(iv) That the remaining and much larger proportion may be safely invested in securities that are not readily convertible;

(v) That as far as practicable the capital should be employed to aid the life assurance business.

In translating these principles into practice Bailey recommended bonds, mortgages, other loans and even bank deposits as suitable. But he did not approve of stock exchange securities on the ground of their being subject to inconvenient fluctuations in market values. At a later stage the objection to stock exchange securities was modified to the extent that Government securities were no longer considered to be beyond the pale but equities were still frowned upon. No wonder investments in Britain of life funds in equities were only to the extent of 3.4 per cent in 1913 and even as recently as 1948 they were only 10.8 per cent.

41. In 1928, Raynes advocated more investment in stocks and shares on the grounds, first, that investments in equities would produce better results than investments in fixed interest stock and, secondly, that equities would provide excellent protection against the danger of currency depreciation. But the converts were few; investment managers were still of the view that, since insurance was a money contract, changes in the value of money were not their concern.

42. A frontal attack on the first two canons was led by Pegler in 1948. His thesis was that it is not the security of capital which is the primary objective; the aim should rather be to secure the maximum "expected yield" with "minimum error" having due regard to the nature and incidence of the liabilities, the term "yield" being defined as covering both income and capital payments. A rough translation would be: it does not matter if there is a loss on realization of capital so long as the interest earned is sufficient to offset the capital loss and still provide an adequate return.

43. The cheap money policy of the post-war years which posed a threat to bonus prospects and even to the solvency of insurers led to a search for means of insulating life funds against a fall in the yield during the many years which the existing contracts still had to run. Haynes and Kirton were the pioneers in this field of thought. Later Redington in a classic paper expounded his theory of immunization. It is

unnecessary to go into the details of this highly technical theory but briefly it may be said that he demonstrated that it would be possible to protect the funds against fall in interest rates by judicious choice of the maturity dates of the investments.

44. Simultaneously with these developments in investment theory, there was a growing feeling that insurers had a moral obligation to make every effort to maintain the real values of the contracts, in particular the pension contracts. The expectation of the continuance of a moderate inflation emphasized this obligation; the old prejudice against equities was shaken off, and increased investments were made in equities which now constitute over 20 per cent of the investments of United Kingdom insurers.

45. In spite of all that is said before, conservation is the key note of life assurance investments. The investments are diversified over different categories like Government securities, mortgages, debentures, etc. and among the debentures and shares spread industry-wise. The tables in annexes A and B to this chapter give the pattern of investments and the changes therein over the years.

46. I make bold to include in this section a brief outline of the investment policy of the Government-owned Life Insurance Corporation of India, in the hope that it will be of interest to other developing countries. This policy assigns to life assurance funds a specific role in the economic planning of the country; in fact as will be seen from the following statement of C.D. Deshmukh, the then Finance Minister, deployment of insurance funds in furtherance of the Plans was a major objective of nationalization:

> "The nationalization of life insurance is a further step in the direction of more effective mobilization of the people's savings. It is a truism which nevertheless cannot too often be repeated, that a nation's savings are the prime mover of its economic development. With a Second Plan in the offing involving an accelerated rate of investment and development, the widening and deepening of all possible channels of public savings has become more than ever necessary. Of this process the nationalization of insurance is a vital part."

47. In 1958 Morarji Desai, the Finance Minister, made a statement in Parliament outlining the investment policy of the Life Insurance Corporation. He stated:

> "Whereas the Life Insurance Corporation will always bear in mind that its primary obligation is to its policyholders whose money it holds in trust, and will work as far as possible on business principles, it will never lose sight of the fact that, as the single largest investor in India, it has to keep before it the interests of the community as a whole. It will, therefore, invest in ventures which further the social advancement of the country. It will take no parochial view. Its funds are drawn from all over India and they will - as far as practical considerations allow - be invested for the good of the entire country. Thus there shall be a studied diversification of its investible funds, which is an essential requirement of any insurer, particularly the sole insurer of a country".

As part of this policy, the Minister announced the application, to the Corporation, of certain statutory provisions which previously governed the investments of the erstwhile life insurers. Under these provisions the Corporation is required to invest at least 50 per cent of its life funds in Government securities. Further, its other investments must be in "approved investments", which means real properties, mortgages, debentures, preference shares, equities, etc. which satisfy certain criteria either of security or dividend record. (The Corporation is, however, free to invest up to 15 per cent of its funds in investments not satisfying the above criteria, provided that the investments carry the unanimous approval of the Investment Committee).

48. A sector-wise distribution of the investments as at 31 March 1968 is given in annex C to this chapter. It will be seen that the investments in the private sector are about 19 per cent. This proportion is roughly the same as that which obtained before nationalization.

49. The demand for funds, both from the public and the private sectors, is considerably in excess of the new moneys seeking investment. Investment decisions therefore involve rationing the scarce resources between competing claims. Since the yield varies even within the same sector, decisions are not easy. Government securities yield, as in other countries, a relatively low return, though it is now over 5 per cent gross. Investments in the public sector yield about 1 per cent more and the yields on investments in the private sector are higher still.

50. The Corporation which, like insurers elsewhere, is concerned about giving a better bonus to the policyholders is constantly endeavouring to improve the return on its investments. The search for higher yields is, however, unlikely to lead to heavier investments in equities. Even now the Corporation's holding of shares in individual companies is sizeable reckoned as a percentage of the shares of the companies concerned. Further, with the rate of growth of the life insurance fund bidding fair to outstrip the rate of growth in worthwhile shares, even maintenance of the present over-all level of investment in equities (which is about 10 per cent of the total) may result in the Corporation holding an increased proportion of shares in individual companies. With this background, any significant increase in equities appears unlikely without the Corporation ceasing to be a mere investor. There is a further complication

as well. Many of the important industrial companies are controlled by one or the other of certain monopoly groups, and in fact the total investment (of all kinds) of the Corporation in the companies controlled by these monopolies accounts for as much as 60 per cent of its investment in the private sector.

51. The policy guidelines and the limitations referred to earlier do handicap the Corporation somewhat in its quest for higher yields. But in spite of these, it has done well by its policyholders as its bonus record (in spite of increasing erosion due to higher expenses) would testify.

Annex A

ASSETS OF BRITISH INSURANCE COMPANIES[a]

	1913	1927	1937	1947	1957	1960
Total assets (£ million)	-	-	1,745	2,718	5,580	7,156
Structure of assets: (% of total assets)						
Mortgages (including policy loans)	1.6[b]	27.7	13.9	7.0	13.1	13.6
British Government securities	0.9	23.4	21.4	35.9	21.4	18.5
Debentures)			16.1	10.4	13.7	13.7
Preference stocks and shares)	30.6	33.6[d]	8.2	9.0	6.4	5.1
Ordinary stocks and shares	3.4	4.9	9.9	10.8	16.9	21.2
Land, house property, ground rents, office furniture, etc.	-	10.4[c]	5.5	5.0	8.1	8.6

Source: Insurance Company Investment, Principles and Policy, by George Clayton and W.T. Osborn

a/ All assurance companies established within Great Britain

b/ Including property

c/ Including cash and other investments

d/ Including home and overseas securities

Annex B

ASSETS OF UNITED STATES LIFE INSURANCE COMPANIES

	1917	1920	1930	1940	1950	1960
Total assets ($ million)	5,941	7,320	18,880	30,802	64,020	119,576
Structure of assets (% of total):						
US Government securities	1.2	11.3	1.7	18.7	21.0	5.4
Foreign Government securities	2.8	2.3	0.9	1.0	1.7	0.3
State, provincial and local bonds	5.6	4.8	5.4	7.8	2.4	3.8
Railroad bonds	30.5	24.3	15.5	9.2	5.0	3.1
Public utility bonds	1.9	1.7	8.6	13.9	16.5	14.0
Industrial and miscellaneous bonds	0.8	0.7	1.9	5.0	14.9	22.4
Stocks	1.4	1.0	2.8	2.0	3.3	4.2
Mortgages	34.0	33.4	40.2	19.4	25.1	34.9
Real estate	3.0	2.3	2.9	6.7	2.2	3.1
Policy loans	13.6	11.7	14.9	10.0	3.8	4.4
Miscellaneous assets	5.0	6.5	5.2	6.3	4.1	4.4

Source: Insurance Company Investment, Principles and Policy, by George Clayton and W.T. Osborn

Annex C

SECTORWISE DISTRIBUTION OF INVESTMENTS IN INDIA OF THE LIFE INSURANCE CORPORATION OF INDIA AT 31 MARCH 1968

Particulars of investments	Lakhs of Rupees	Ratio of holding %
A. Public sector	811,27.41	72.6
B. Co-operative sector	87,42.38	7.8
C. Joint sector	7,13.44	0.6
D. Private sector	211,97.08	19.0
GRAND TOTAL ...	1117,81.08	100.0

(1 lakh : 100,000)

B. Summary of discussion

52. Because in many developing countries domestic life insurance enterprises are either lacking or still at an early stage of development, the discussion of the problems arising in the course of the establishment of such enterprises attracted the attention of the majority of the participants. Although nearly all of those from developing countries seemed to agree that the general economic and social conditions prevailing in such countries, which did not allow the population to set aside part of its income to cover the cost of life insurance protection, constituted the main obstacle to the introduction and expansion of life insurance services, some participants referred to certain traditional and religious influences which created additional difficulties and which could be removed only through thorough education. In spite of the different institutional and organizational approaches to the establishment of life insurance in developing countries, a general consensus could be discerned among the participants that life insurance in developing countries should be in the hands of domestic undertakings, be they nationalized or private, and that where these were private the State should play an active and constructive role in the establishment and the development of life insurance, notably through an adequate supervision over this economic activity.

53. It was specifically pointed out by several participants that insurance enterprises in developing countries endeavouring to establish relatively large life insurance portfolios would inevitably have to rely in their operations mainly on clients with comparatively small earnings. Consequently, the insured amounts of life policies would tend to be very small, a fact making it relatively more expensive to manage the portfolio. Hence the questions of efficiency of life insurance transactions and reduction in management and other costs became very important for insurance enterprises operating in developing countries. Several practical suggestions to mitigate these additional disadvantages were made by some participants, e.g. the introduction of standard policies and schemes of life insurance without medical examination, provision for the payment of premiums by the easiest methods (for instance by deduction from payroll, postal remittances), and a greater emphasis on the introduction of group life insurance schemes rather than on individual policies. To achieve this purpose, collective or group forms of life insurance might be arranged

through trade unions and co-operatives. Experience showed that people in the higher income brackets usually filled their insurance needs through individual policies. In this connexion, reference was made to the complex wording of certain provisions in policies, which made it difficult even for the qualified agents employed by the life insurance companies to give correct and simple explanations of their meaning to the clients.

54. Many participants referred to the absence in developing countries of sufficient statistical information, notably of the mortality tables needed as an initial scientific basis for establishing premium rates in life insurance. In this respect, the general feeling among the participants was that in the majority of bases it was practically impossible to prepare national mortality tables that would be sufficiently accurate for starting a new life insurance business, even if the national censuses of population had been conducted regularly. It seems in fact that the general mortality of a population does not reflect with sufficient accuracy the mortality of the insured, and hence much of the work of adjusting the initial statistical data has to be done in the process of the operation of the life insurance business. Consequently, it was generally accepted by the majority of the participants that, in the absence of dependable mortality tables, the new insurance business had to begin by the application of some existing mortality tables (even from a different country where conditions were not too different from the country in question). Such tables should, of course, be adjusted in the course of their application by taking into consideration the actual conditions in the country and by adjusting the rates correspondingly.

55. One of the most important aspects of the transactions of life insurance institutions is the investment of their funds in order to cover their mathematical and other reserves. All the participants from developing countries who spoke on this item stated that these countries attached great importance to this field of activity of life insurance institutions, in view of the significance of such investments for the national economy. They considered that such investments by insurance institutions of proceeds of their transactions in developing countries should be made in the countries concerned and should contribute to the economic development process, bearing in mind the general economic and social aims of those countries. In this connexion, several speakers mentioned that the developing countries did not as yet pay sufficient attention to the importance of the investment policies of insurance institutions.

56. Several participants from developing countries held that, in view of the importance of the investments of insurance funds for economic development, and for the purpose of the better conservation of such funds for the discharge of liabilities under the insurance contracts and of the protection of the interests of the insured or the beneficiaries, the State must play an active role in the supervision of the use of such funds and in the shaping of the investment policy of the insurance enterprises, even in cases where the insurance industry was organized in the form of private undertakings. However, different opinions were expressed as to how far the State should go in prescribing regulations with regard to the manner of investment of the insurance funds. Many participants from developing countries suggested that the investment of funds by the insurance institutions, both life and non-life, in Government bonds and other government securities, including those issued by provincial, municipal and local authorities, should be prescribed by regulation in the developing countries on the grounds that this type of investment makes it possible both to further the economic development policies at the national level and to take into account the interests of the insurance institutions and their insured and beneficiaries. Several participants from developing countries suggested that the Governments should include in the regulations dealing with the investment of insurance funds an effective provision which would stipulate that a significant specified proportion of the insurance funds should be invested in such securities.

57. Some participants said that, for the purpose of promoting savings through life insurance in a developing country, especially in a period of inflation, it might be necessary to give consideration to setting up unit trusts linked with life insurance, which would provide a better return to the policy holders. Several other participants expressed quite different ideas: Some considered that policies linked to equities or to unit trusts might not be entirely appropriate for developing countries, as they were designed for industrially developed market economy countries with highly organized capital markets, and others argued that the highest yield was not in itself a goal of life insurance. Some other participants expressed the opinion that insurance could not always be considered as the most economical or efficient savings method and pointed out that a policy holder often received only a very modest bonus in comparison with the high investment income of the insurance institution; in their view, the distribution of the overall operational income, both on under-writing and investment, should be so regulated that the bulk of it was returned to the insured.

58. With regard to foreign investments by domestic insurance enterprises, it was generally suggested that, for the time being, this problem was of concern only to those institutions which operated on the foreign insurance markets, including those of other developing countries. It has not become of importance for the majority of domestic insurance institutions in developing countries whose direct insurance operations were essentially oriented towards their home markets. However, with the development of co-operation among the developing countries and the growth of regional co-operation these problems would acquire greater importance. Consequently, it was said, the developing countries should watch those developments carefully. As regards regional co-operation in general, several participants expressed the idea that developing countries, in their efforts to create national life insurance markets, should examine the possibilities of setting up regional centres that would start popularizing life insurance and provide its members with information about developments in this field in member countries and outside. Such centres might gradually transform themselves into a kind of technical assistance agency. At a later stage the co-operation thus established might conceivably spread to the operational field, and in that event regional insurance or reinsurance ventures might be considered possible.

Chapter III

NON-LIFE INSURANCE

A. Background paper by Mr. Frantisek Dostal (Czechoslovakia)

I. Analysis of various classes of insurance

(a) Fire insurance and insurance against natural forces

Risks covered

1. The risks covered are: fire and lightning (United States) and in some cases explosion (except for nuclear explosion). Fire is defined - for example, in the French legislation on the insurance contract as follows:

> "The insurer against fire assumes liability for any loss due to conflagration, burning or mere combustion. However, he is not liable, unless it is otherwise agreed, for loss caused by the action of heat alone or by direct and immediate contact with fire or with an incandescent substance, if there has been neither a fire, nor the start of a fire likely to develop into a real fire."

Insurance conditions in the Federal Republic of Germany define fire as follows:

> "A fire is defined as any combustion which originated outside the fireplace or has escaped from the fireplace and has spread spontaneously. Loss due to fire and damage to articles intentionally exposed to fire or to heat for the following purposes: smoking, roasting, baking, boiling, drying or ironing, are not covered by the insurance."

The standard conditions for fire insurance in the State of New York do not contain any definition of fire. Case law provides the following definition:

> "Fire is an oxidation process which is so rapid as to either produce flame or a glow. Fire is always caused by a combustion, but combustion does not always cause fire. Combustion may be so rapid as to produce fire, but until it does so, combustion cannot be said to be fire."

The Americans distinguish between "friendly fire" and "hostile fire".

2. Czechoslovak insurance conditions contain no definition of fire; the term is interpreted as in the conditions applied in the Federal Republic of Germany.

3. Insurance against other loss due to natural forces is dealt with differently in different countries. The nature of this loss, which may be on a vast scale, and certain problems that prevent the development of this type of insurance on a voluntary basis, have resulted in the introduction of various types of compulsory insurance against natural forces, particularly for buildings. This form of compulsory insurance

has been current in Switzerland as regards the cantons since 1926, in the Soviet Union since 1940 for all items previously covered by fire insurance, and subsequently in Poland, Spain, the German Democratic Republic, and since 1960 in one of the Länder of the Federal Republic of Germany (Baden-Wurttemberg). In Czechoslovakia, Hungary and Yugoslavia fire insurance has usually been extended to cover loss due to natural forces but have not been made compulsory.

4. In most other countries fire insurance is still limited to fire, lightning, and in many cases also to explosion. The other hazards due to natural forces are covered either to a limited extent by separate policies (Federal Republic of Germany and France) or by means of endorsements (with payment of an extra premium) to fire insurance policies (United States).

5. Natural forces are defined as: windstorms, floods, rockfalls, earthquakes, etc. The coverage of these risks naturally differs according to the country. For example, in the Soviet Union insurance covers floods, earthquakes, thunderstorms, windstorms, torrential rains, hail, rockfalls and landslides. In Switzerland insurance covers floods, high water, avalanches, snow pressure, windstorms, hail, rockfalls and tree falls. In the United States it is possible, on payment of a special premium, to extend ordinary fire insurance to what is termed "extended coverage", which includes the perils of windstorm, hail, explosion, civil commotion and riot, aircraft, motor vehicles, smoke, tree falls, pressure from snow and ice, collapse of buildings and landslide.

6. In Czechoslovakia insurance against natural forces covers the following risks: fire, explosion of all kinds, lightning, windstorms, high water or floods, hail, landslide, fall of rocks or earth, avalanches, fall of trees, masts and other objects, snow pressure and frost.

7. In most other countries windstorm risk is usually covered by a separate policy. The assessment of this risk is made in each case on the basis of special insurance rates and conditions.

8. The normal criterion used to define a windstorm is related to the results it produces and to the wind velocity expressed in degrees on the Beaufort scale. The minimum velocities for a windstorm vary, according to the country, from force to force 10 (i.e. from 62 to 89 km an hour). The French definition is given below by way of example:

"The insurer shall be liable for the material damage caused .... by the direct action of the wind or the impact of any object overturned or carried by the wind when it is violent enough to destroy, wreck or damage a number of soundly constructed buildings, trees, etc., within a radius of five kilometres from the object insured. In case of dispute and as additional proof the insured must produce a certificate from the nearest national meteorological station to the effect that at the time of the disaster the wind velocity was over a 100 kilometres an hour."

9. In insurance against natural forces, especially insurance against windstorm, it is normal to apply a deductible.

10. In view of the possibility of disasters on a catastrophic scale, some countries establish a ceiling for the insurer's liability. For instance, in Switzerland there is a ceiling of 100 million Swiss francs for the claims payable by the whole group of insurers authorized to operate in Switzerland in respect of a disaster due to natural forces; where the total losses reported exceed this limit, the amount payable is reduced proportionately. In Yugoslavia insurers set aside part of the premiums received for accumulation in a special fund to cover earthquake damage; full compensation is paid only within the limits of this fund, and if the losses exceed this limit the compensation is reduced proportionately. In Spain the State grants a loan to cover catastrophic damage due to natural forces; the insurers repay this loan by means of special extra premiums of 10 per cent added to the fire insurance premium.

<u>Direct loss and indirect (consequential) loss</u>

11. Fire insurance or insurance against natural forces covers material loss due to the peril insured against in respect of the subject matter insured, in so far as there is a causal link between the loss incurred and the risk covered. The interpretation of the causal link is a matter of jurisprudence. In the United States, for example, the legal experts' interpretation is that fire (or any other peril covered by the insurance) must be the "immediate or proximate cause of the loss". There are, however, other formulations of this principle, varying according to the insurance conditions.

12. Loss other than material loss is not covered except by special agreement. As a rule, insurance covers salvage costs, and sometimes also the cost of clearing operations. However, there are many non-material losses (financial losses) which the insured may suffer, for example, loss of rent, depreciation in the value of one item resulting from

the destruction of another related item, losses resulting from the interruption of business, etc. Some losses of this type may be covered by special insurance (for example, business interruption insurance).

Replacement value

13. As a rule the principle applied is that the insurer pays the actual cash value of the property destroyed or damaged, that is, the purchase price of the item when new less depreciation. The formulation of this principle varies from country to country. However, when the claimant receives compensation representing the actual cash value, he does not receive the amount needed to replace the original article by a new one; he is short of the difference between the actual cash value and the cost of the new article. This difference can be covered by replacement cost insurance.

14. Objections are often made to replacement cost insurance, based on the rule that insurance should not be a source of gain, but the contrary argument has been advanced that even replacement cost insurance does not give the insured anything more than the amount he actually needs to obtain the replacement article. Consequently, the conditions normally stipulate that compensation equivalent to the replacement value will be paid only on condition that the item claimed for is in fact replaced. Another proviso is that the replacement value will only be paid if the actual cash value of the item claimed for is not less than a certain percentage, established in advance, of the replacement value.

15. Under the Czechoslovak insurance conditions for the insurance of industrial risks, the replacement value is paid without any reduction when the actual cash value is at least 80 per cent of the replacement value; when the actual cash value is less than 80 per cent, the sum paid may not exceed 80 per cent of the replacement value, and when the actual cash value is less than 30 per cent, the compensation may not exceed 30 per cent of the replacement value.

16. In the Federal Republic of Germany the amount payable is equal to the replacement value if the actual cash value is at least 50 per cent of the replacement value, in the case of agricultural buildings, and at least 40 per cent of the replacement value in the case of industrial buildings; however, for industrial buildings payment of the replacement value is subject to a reduction varying from 0.5 to 30 per cent when the actual cash value is between 40 and 80 per cent of the replacement value.

17. Replacement cost insurance is widely used in Switzerland and is also practised, to varying degrees, in other countries.

Deductibles

18. Apart from small deductibles, designed to eliminate insurance for minor losses, it is also usual, especially in the United States, for industrial enterprises to take out insurance with very large deductibles, amounting to several hundred thousand dollars, or even millions of dollars. Enterprises with large capital resources reduce their insurance costs by insuring only against unusually large losses which would exceed their financial capacity. Very substantial reductions in premiums are allowed for insurance of this type, which reflects the fact that the bulk of insurance settlements represents a large number of small losses.

Property insured

19. In order to avoid litigation with the insured at the time of settlement, it is advisable to specify in the contract the property covered by the insurance. The original method was to make a separate list of the items insured, but this is increasingly being replaced by general designations of groups of items. This procedure is used both for the insurance of personal property and the insurance of industrial and agricultural undertakings. The definition of the groups of property differs according to practical requirements, but the principle applied is always that the insurance automatically covers all property in the group concerned which has been acquired during the term of the insurance.

20. Generally, the property covered is the property owned by the policy-holder. The insurance conditions specify what other items may be included in the coverage, such as property belonging to third parties (articles hired or belonging to persons related to the insured, articles belonging to employees, etc.).

Territorial coverage

21. In principle the insurance takes effect on condition that the property insured is in the place designated in the policy. However, this restriction does not always meet the practical needs of policy-holders and extensions can accordingly be arranged. This method is commonly used for insurance of personal property; it provides for the coverage of some items throughout the national territory (Czechoslovakia), throughout Europe (Federal Republic of Germany), or throughout the world (United States). In the United States a distinction is made between what is called "specific coverage" (designated items in a designated place) and "blanket policies" or "floaters" (under which articles are covered even in other places).

Nuclear risk

22. The Atomic Energy Commission considers that nuclear risk must certainly be regarded as a potentially very serious risk, but at the present stage of modern technology the likelihood of a disaster is not deemed to be any greater than for other enterprises of the chemical industry, and the risk is therefore insurable. However, provision must be made for the creation of an adequate insurance capacity. A distinction is made, according to the degree of danger, between: (i) reactors, (ii) undertakings that produce or use enriched fissionable materials, and (iii) undertakings that process or store radioactive materials. In the United States two pools have been established for the insurance of nuclear risks (one consisting of the stock insurance companies, and the other of the mutual companies); each of these two pools insures the other.

Tenants' risks (risque locatif) and claims by neighbours (recours des voisins)

23. The insurance of these two risks is a special feature of French fire insurance. Under the provisions of articles 1384 and 1733 of the French Civil Code there is an aggravated liability for damage caused by fire to property which has been hired or rented or the property of neighbours. The insurers include this liability in fire insurance policies, since it is fire, covered by the fire insurance, which is the origin of the liability. In principle this is an insurance of the property of third parties, in correlation with the liability of the policy-holder.

(b) Motor vehicle insurance

Structure of motor vehicle insurance

24. In most European countries motor vehicle insurance can be broken down as follows:

(a) Liability insurance (which covers claims by third parties for bodily injury and property damage);

(b) Collision or contingent liability insurance (covering damage to the policy-holder's vehicle resulting from collision or other causes);

(c) Accident insurance (covering bodily injury of passengers in the vehicle);

(d) Luggage insurance (covering damage to passengers' luggage).

25. In France, motor vehicle insurance is divided into the following classes:

(a) Fire insurance;

(b) Theft insurance;

(c) Insurance against damage other than that covered under (a) and (b) caused by fire in the vehicle (contingent liability);

(d) Liability insurance for damage by fire to third parties (third party claims - fire
(e) Liability insurance for damage due to causes other than fire ("direct");
(f) Legal costs insurance (third party claims - defence costs - reinsurance).

26. In the United States automobile insurance consists of the following classes:

(a) Liability insurance;
(b) Medical payments insurance for passengers carried in the vehicle;
(c) Insurance against uninsured motorists (uninsured motorist endorsement);
(d) Physical damage insurance against damage to the vehicle insured. This, in turn, is broken down into special types of insurance, covering:
  - (aa) damage to the vehicle caused otherwise than by collision (comprehensive excluding collision);
  - (bb) damage due to collision (collision insurance);
  - (cc) cost of towing the vehicle from the place of collision and essential preliminary repair work (towing and labour costs);
  - (dd) fire, lightning and transportation insurance;
  - (ee) damage due to theft.

27. Insurers offer various combinations of these types of insurance in the form of a single policy with a single premium.

Liability insurance

(a) Compulsory insurance

28. Since the protection of the victims of road accidents is a matter of public interest it is advisable to make insurance compulsory for motor vehicle owners. Compulsory insurance may take the form either of an insurance contract, or of direct application of the law. Compulsory insurance of either type is now in force in nearly every country with heavy motor traffic. However, in the United States it has been introduced in only three States.

(b) Persons insured

29. It is in the interests of the victims of road accidents that the number of persons whose liability is covered by insurance should be as large as possible. The Federal Republic of Germany requires a motor vehicle owner to take out insurance for himself and for the driver of the vehicle. French regulations stipulate that "any person who may become liable for bodily injury or property damage to third parties caused by a motor road vehicle must be covered by insurance". Under Czechoslovak regulations insurance is

extended ex lege to every owner or driver of a motor vehicle, even in cases where a person drives a motor vehicle without the knowledge or consent of the owner. Insurance conditions in the United States cover the liability of the policy-holder, the members of his household and any person driving the vehicle with the owner's consent. In some cases State agencies or other public bodies are exempted from the requirement to take out insurance. In Czechoslovakia there is no exemption of this kind, and compulsory insurance applies to all owners of motor vehicles without exception.

(c) Exclusions

30. Provisions concerning exclusions vary considerably from country to country. As a general rule the following are always excluded: claims by the driver, by close relatives (in France only where relatives are carried in the vehicle concerned), damage committed intentionally, damage to articles transported, except for the personal effects of passengers and damage caused by a driver without a driving licence or by a drunken driver. Under the terms of the Czechoslovak regulations the insurer must meet claims by the victims even in some of the cases excluded and referred to above (drunkenness, no driving licence, driving without the owner's permission); however, the insurer may claim compensation from the person responsible for the accident, up to the amount of the sums paid in settlement.

31. If the premium is overdue at the time of the accident, the insurer may charge the insured a sum amounting to 10 per cent of the sum paid in settlement. A similar system (claim against the insured after compensation has been paid to the victim) also applies under French law, for example, in cases where the statement of important facts made at the time when the insurance contract is taken out contains inaccuracies.

(d) Gaps in insurance protection

32. Although liability insurance covers a fairly wide field, it may so happen that the legitimate claim to compensation by the victims of a road accident is not met, either because the person responsible cannot be identified (when the driver leaves the scene of an accident), or because for some legitimate reason the insurer is not bound to pay the compensation.

33. Attempts are being made, by various methods, to fill these gaps in insurance protection. In France, and quite recently in Italy, a special fund has been set up (automobile guarantee fund) for the purpose of honouring the claims of victims to compensation which they cannot otherwise obtain. However, the victim has no legal claim to compensation out of this Fund. In the Federal Republic of Germany insurers have set

up a special compensation fund for bodily injury caused by unidentified motor vehicles and by vehicles from abroad; however, this arrangement does not cover claims by victims when no insurance has been taken out or when the insurer has refused to accept liability because of the terms of the insurance contract. Czechoslovak regulations are based on the principle that the legitimate claims of the victim of an accident shoul always be met; consequently the rule that the insurer will compensate the victim of a road accident in all cases is widely applied, even where the person causing the accide has not been identified. In other cases, as noted above, the insurer may claim compensation from the person liable, who may be the insured himself.

(e) Motor vehicles from abroad

34. When the law makes insurance compulsory for the vehicles of the country's own nationals, it is also compulsory for vehicles from abroad using its roads. Owners of such vehicles can meet this requirement by purchasing at the frontier an insurance valid for the duration of their stay. They are exempted from doing so if they can present to the border customs officials what is known as the "green card" or the "blue card" among the socialist countries of Eastern Europe, issued by the insurer in their own country by virtue of the international arrangements. Under these arrangements damage caused by a vehicle in the country visited is paid for by an insurer in that country, authorized for that purpose in accordance with the local regulations, on behalf of the foreign insurer with whom the owner of the vehicle is insured.

(f) Transfer of ownership of a vehicle

35. Under the general provisions of the law it is not possible, when the ownership of a vehicle is transferred, for the insurance taken out by the previous owner to be transferred automatically to the purchaser, since the original owner is precluded under the policy from requiring the purchaser to take over the insurance contract in his own name. In some countries special provisions are in force (for example, in the Federal Republic of Germany) under which the new owner will be covered by the insurance of the former owner, but the insurer and the new owner have the right to cancel the contract within a specified period. Where insurance is compulsory by law the new owner is of course automatically covered.

(g) Limitation of the insurer's payments to the sums insured

36. In most countries the liability of the insurer is limited to the sums insured stipulated in the insurance contract; the amount is usually fixed separately for claims for bodily injury to one or more persons and claims for property damage; in

countries where motor vehicle liability insurance is compulsory, the minimum sume of liability for different types of motor vehicles are usually determined by law. In Czechoslovakia, Hungary and Finland the liability of insurers is not limited to the sume insured (unlimited guarantee).

(h) Premium rates and premium payments

37. Premium rates are established partly on the basis of objective criteria (type of vehicle, engine capacity, area where the vehicle is used), and partly according to subjective criteria (number of previous accidents, driver's age, whether he is married or unmarried, his occupation etc.). Consequently, the rate structure in some countries is very complicated, since it reflects the intention of expressing as far as possible the exact degree of individual risk. Recently, increasing emphasis has been laid on the importance of subjective factors. The subjective type of insurance leads to the system of bonuses (sometimes supplemented by a system of surcharges) whereby the premium is reduced if the insured has made no claims in the preceding years. This procedure, although very popular, nevertheless results in a considerable increase in costs.

38. In countries where insurance is compulsory by law, on the other hand, and where there is only a single insurer with a monopoly, premium rates are very simple and vary only according to the type of vehicle. The Czechoslovak rate structure contains only nine items, and the same is true of the Hungarian rate structure. This type of rate structure is essential in view of the technique of compulsory insurance by law. As the system does not involve policies in which the insurer specifies the premium, the vehicle owners themselves determine the premium they have to pay, on the basis of the scale published by the appropriate ministry in the Order relating to compulsory insurance. The premium is paid annually. The insurer merely checks whether all motor vehicle owners have correctly paid the premiums due; for the purpose of this check he uses the lists of registered vehicles kept in the road traffic bureaux. The date of expiry of the premium is fixed for all vehicles at 1 March. If the premium becomes overdue, it is increased by 10 per cent of its annual amount for each month's delay.

(i) Suggestions for the reform of automobile liability insurance

39. Two criticisms are made of present systems of automobile liability insurance: first, the application of the principle of responsibility limits considerably the compensation paid to the victims of road accidents, and secondly, the legal nature of this concept means that many reports and procedures are necessary to establish the degree

of liability of the persons concerned, and this leads to an appreciable delay in settling the claims of victims of accidents. Suggestions have therefore been formulated, especially in France (Professor Tunc) and in the United States (Keeton and O'Connell), proposing basic changes in the present system of safeguarding the rights of injured persons. All these suggestions follow the same lines and urge the virtual abandonment of the principle of responsibility for damage caused, and the acceptance of the idea of compensation of any person who has suffered bodily injury through the use of a motor vehicle, irrespective of who is to blame. Some of these suggestions limit this absolute guarantee to certain types of compensation (medical expenses, loss of wages, etc.), while in others it is considered that the compensation paid should not exceed certain fixed amounts. No compensation is usually proposed for claims in respect of pretium doloris or moral damage. The originators of these proposals consider that, if such plans were implemented, the settlement of claims could be speeded up considerably and costs could be reduced.

Motor vehicle insurance against physical damage

(a) Risks covered

40. The scope of the risks covered differs from country to country. Czechoslovakia's insurance conditions provide that it is the same as that of an "all risks" insurance, comprising the coverage of damage due to any occurrence whatsoever; thus it covers not only collision damage but also the effects of natural forces of whatever kind, damage caused by acts of valdalism, theft, etc. In other countries the insurance conditions usually explicitly specify the risks covered (the "named perils" system). In practice there are a number of combinations, the most common being a combination of fire and theft insurance.

(b) Exclusions

41. The most important exclusions are damage due to wear and tear, or to lack of fuel or lubricants. As a rule, damage caused by a driver without a driving licence is also excluded, and often damage caused by a drunken driver.

(c) Premium rates

42. Premium rates may be based either on the value of the vehicle, or on its technical characteristics. In the former case the price when new (or list price) of the vehicle is taken as a basis even when the vehicle is not new. In other cases the premium is calculated according to the type of vehicle, the engine or cylinder capacity, the use to which the vehicle is put, etc.

(d) Compensation

43. In principle, compensation is determined on the basis of the actual cash value of the vehicle, which represents the maximum liability of the insurer. Exceptions to this principle may be stipulated in the insurance conditions for partial loss, in which case new spare parts are paid for at list price without any reduction for depreciation. Some insurance conditions completely ignore the rule concerning depreciation in the case of vehicles less than a specified number of years old, for example, three or four years. In any case, however, the actual scrap value is deducted, this being either what remains of the vehicle as a whole in case of total loss, or the scrap value of the individual spare parts replaced in case of partial loss. As the actual value of a vehicle declines rapidly, the insurance conditions in the Federal Republic of Germany raise the ceiling on the insurer's liability for the first three years tp the level of the list price, and for subsequent years to the actual cash value plus 25 per cent.

(e) Theft

44. When a vehicle is insured against theft the principle generally applied is that the insurer is also responsible for damage done to the stolen vehicle while in the hands of the thief.

(f) Tyres

45. Damage to tyres is generally excluded from the coverage; if such damage is covered, it is only when it is caused at the time of an accident to the vehicle.

Legal costs insurance

(a) Simple insurance against defence costs and redress against third parties

46. Some insurers, particularly French insurers, include in automobile insurance what is termed *contre-assurance*, whereby the insurer undertakes to take action on behalf of the insured, when the latter himself is not liable, to enable him to obtain compensation for the damage from the third party responsible or that party's insurer; in such cases the costs incurred are borne by the insurer.

(b) Insurance against uninsured motorists

47. In the United States protection against uninsured motorists is obtainable as part of a comprehensive automobile insurance policy. By virtue of this insurance the insurer pays to the insured any sums that the latter may claim from the owner or driver of an uninsured vehicle which has caused him bodily injury or property damage. The

insured thus has protection in cases where the person responsible for an accident does not possess sufficient financial resources to meet the legitimate claims of the victim. In countries where compulsory automobile insurance is confined to certain areas this type of insurance is very useful.

(c) Agricultural insurance

Agricultural insurance techniques

48. Agricultural enterprises in most countries take out insurance in the form of individual policies, coverage being by branch of insurance (fire, liability, hail, livestock, etc.). However, the tendency in some countries today is to combine coverage of several branches of insurance in a single policy and this also applies to agricultural insurance (multiline policies). A Farmowners' Policy, which provides the householder with comprehensive coverage, has been available in the United States since 1961. Risks both to the person and to the farm itself are covered by this policy.

49. Combined insurance for farmers in Czechoslovakia is much broader in scope. It comprises:

(a) householder's comprehensive insurance (natural forces, burglary, damage by water, etc.);

(b) insurance of farm buildings and equipment, stocks and livestock against natural forces;

(c) liability insurance in respect of the farm;

(d) insurance of vegetable crops against natural forces;

(e) insurance of cattle against death or forced slaughter;

(f) personal accident insurance for persons living on the householder's premises.

50. This type of insurance is optional and the applicant selects the coverage he wishes to include in his policy. The premium is calculated separately for each branch, as follows:

(a) for a householder's comprehensive policy, according to the number of rooms;

(b) for coverage of personal property, stocks, livestock, liability insurance and crop insurance, according to acreage;

(c) for accident insurance, according to the number of persons covered, account being taken of the amount of insurance the policy-holder has selected.

51. Unlike private farmowners' insurance, insurance by joint agricultural co-operatives and State farms in Czechoslovakia is compulsory by law. However, it is confined to damage caused by natural forces to buildings, personal property, stocks, crops and

livestock. No policy is written as statutory insurance is involved. The co-operatives or State farms concerned submit to the insurer annual returns containing data on the insured property. The calculation of the premium is based on these data which, as a rule, consist of the following: cost of buildings and personal property, value of stock, value of planted vegetable crop, production and price of livestock. Premium rates are 0.6 per cent for dwellings, 1.2 per cent for other buildings, 1.8 per cent for stocks, equipment and livestock; in the case of crop insurance, premium rates vary by type of crop (2.6 per cent for cereals, 2.1 per cent for root crops, 5.7 per cent for hops, 15 per cent for tobacco, 4.3 per cent for market-garden crops, 8 per cent for vines). Premiums are paid in three instalments (20 per cent before 31 May, 30 per cent before 31 July and 50 per cent before 30 November).

52. Risks not included in compulsory insurance may be covered by voluntary (optional) insurance, also in the form of a combined policy covering: livestock and crops against risks not covered by compulsory insurance, eggs in electric incubators, motor-vehicle collision, damage to machinery and burglary.

Crop insurance

The risk coverage breakdown is as follows:

(a) hail;

(b) natural forces;

(c) crop yield.

(a) Hail

53. Insurance against hail covers only the damage caused to crops by hail. This is the original form of crop insurance which is still in force in most countries. The gross expected crop yield is insured against total or partial loss due to destruction or damage by hail of plants during growth, but not after they have been removed from the fields, and before threshing. In principle, damage is covered only in respect of quantity and only in exceptional cases is damage to quality covered. Very often only damage above a minimum amount (e.g. 8 per cent) is covered. This excludes negligible damage, thus reducing premium rates. The percentage of the crop completely or partly destroyed is taken into account in determining the premium.

(b) Natural forces

54. Hail insurance alone provides only very limited coverage compared with the many possible forms of damage to crops during growth. In many countries, including the socialist States, this insurance has therefore been extended to cover other hazards from

natural forces. In Czechoslovakia this extended crop coverage includes, in addition to damage by hail, damage due to fire, explosion, lightning, windstorms, high water, flooding, avalanches and falling trees and other objects. Moreover, coverage against frost damage between 21 March and 20 June is provided for textile plants, tobacco and vegetable crops, while autumn grain and rape are insured against excessive winter frost. Tobacco is insured against damage by perennial spores. In the case of early potatoes, vegetables, tobacco, hops and textile plants, insurance against loss is provided not only in respect of quantity but also in respect of quality when the loss of quality is caused by a peril insured against.

(c) Crop yield

55. Insurance against natural forces, however extensive, leaves some risks unsecured, including drought, parasites of all kinds and plant diseases. Crop yield coverage is virtually an all-risks insurance, since the risks insured against are either not mentioned at all or are listed in such detail as to constitute an all-risk insurance. In either case only damage caused by the human factor (e.g., negligence) is excluded. In settling a claim more attention should therefore be paid to operating methods than to the natural causes of the damage.

56. Compensation consists of the difference between the insured amount and the actual crop yield, irrespective of whether the lower yield is caused by a drop in the quantity or a deterioration in the quality of the crop. The moral hazard is, of course, exceptionally grave in this type of insurance. The insured is virtually certain of obtaining compensation for a loss in yield and may therefore show little interest in taking the necessary steps to prevent or, at least, to limit the damage. A deductible in respect of damage is therefore always written into this type of insurance policy.

57. This form of insurance, which provides the farmer with the most up-to-date and fullest coverage against crop damage, often has the financial backing of the State since it is to some extent a social measure. A few examples of this comprehensive crop yield coverage follow.

58. In the United States crop yield insurance was first instituted in 1938. It is provided by the Federal Crop Insurance Corporation, attached to the Department of Agriculture, in 1,304 counties out of 3,066. In each county coverage applies to certain crops only. This insurance is optional. But if a farmer decides that he wants this type of coverage, he must insure the whole of his land sown to a particular crop and not just a selected area. The insurance is taken out before his land is sown and

remains in force until the crop has been harvested. In the case of cereals, for instance, the guaranteed yield per acre (e.g., sixteen bushels) is specified in the policy. If the actual yield falls short of that figure, the insurer pays the difference in the price per bushel as specified in the policy. The premium rises progressively because every extra bushel guaranteed (e.g., the seventeenth bushel) represents a relatively higher risk, since it is less likely to be produced than the sixteenth bushel. Settlement of claims is rather difficult because the actual crop yield has to be determined for the whole area sown, wha er the reason for any yield loss. An inspection must be made to determine whether the farming regulations have been observed and that the loss is not due to negligence on the part of the insured farmer. The ceiling for compensation is the actual cost of production or 75 per cent of the standard yield in recent years.

59. The State pays part of the insurer's administrative costs. However, the insurance itself is self-balancing from a technical standpoint. If the claims rate is low, each farmer will benefit from a reduction in the premium rate in subsequent years.

60. In the Soviet Union coverage against loss or damage caused by various natural calamities (hail, windstorm, torrential rain, freezing, spring frost, excessive moisture and for some crops, drought) was, until the end of 1967, provided by the compulsory insurance of kolkhozes. The coverage thus provided the fullest protection for farm produce. On 1 January 1968 the range was further broadened to include other risks, so much so that insurance of farm produce in the Soviet Union today amounts virtually to all-risks crop yield insurance. All crops will henceforth be covered against drought, parasites, low temperature during growth, etc.

61. This insurance is based on the average yield of various crops during the previous five years, calculated separately for each kolkhoz. If the actual yield of a crop is below the five-year average yield, the insurer refunds 50 per cent of the difference between the average and the actual yields. Yields are determined for the total acreage sown to a particular crop. Compensation to the extent of half the difference mentioned above, is applied to ensure observance of normal agricultural technique and preventive measures to reduce losses.

62. Premiums are calculated on a five-year basis without a loading for profit and vary according to the conditions prevailing in the various Soviet Republics. Four per cent of every premium is paid into the fund for the financing of preventive measures and, in addition, 3 per cent goes into the contingency reserve fund. Part of the fund is

administered by the Soviet Republics and the other part is centralized. If the fund in one of the Republics is unable to meet the claims against it, the central fund will provide it with an interest-free loan for an unlimited period, to be paid back out of future income. In principle, kolkhoz insurance is autonomous and does not receive financial backing from the State.

63. In Japan, the level of crop insurance is high and coverage is financed by the Stat Insurance is compulsory and is intended for the network of local farmers' associations which, in turn, have set up regional federations. The Agricultural Reinsurance Fund, which is part of the State budget, forms the apex of this structure. Premiums for basic risks are shared equally by the farmers and the State, while premiums for coverag against calamities are paid by the State alone. The local agencies hand over 90 per cent of the premiums collected to the regional federations, which pay 90 per cent of th cost of claims. The federations are reinsured with the Agricultural Reinsurance Fund. Coverage is fixed at 70 per cent of the yield and up to this figure the insurance cover the difference between the actual and the insured yield. Claims are then settled only if the actual yield is at least 30 per cent below the standard yield. Coverage is provided for rice, wheat and silkworms, among others.

64. In Sweden the National Agricultural Marketing Board has been set up and is authorized to settle claims in respect of crop damage. Half the funds it needs for this purpose is provided by the State and the other half by farmers in the form of deductions from the selling price of farm produce. Plants are inspected during growth in selected areas, and the normal yield in the different regions is estimated accordingl Claims are settled in terms of the difference between normal and actual yield, less a deductible amounting on average to 15 per cent but which is in fact the difference recorded in a particular year.

65. The pilot scheme introduced in Hungary in 1968 also provides, in principle, for a guarantee of the quantity specified in the policy and expressed in firm prices. The guaranteed yield is based on the average for the preceding five years, and the co-operati may claim up to 80 per cent or 90 per cent of the average. Depending on whether the coverage selected is 90 per cent or 80 per cent the premium rates are 6.2 per cent and 3.8 per cent respectively for wheat and 4.9 per cent and 3.5 per cent for rye.

66. In Ceylon compulsory insurance for rice was introduced in 1961; it is virtually an all-risks insurance. Maximum compensation amounts to 50 per cent of the standard yield, expressed in terms of prices fixed by the Government. The ceiling is raised to 60 per cent if modern farming techniques are used. There is a standard premium rate of 6 Rps per acre, and claims are settled after the crop has been harvested and may be paid either in cash or in kind. The insured may claim compensation if the actual yield of the insured plot falls below 70 per cent of the standard yield. Claims are settled by instalments, depending on the stage of growth reached by the crop. Between 1958-1965 the total premiums amounted to 5.2 million Rps to which the farmers contributed 2 million Rps. Claims settled amounted to 4.2 million Rps, the difference being met out of State funds.

Livestock insurance

(a) Livestock insurance techniques

67. The value of livestock represents an important share of agricultural assets and steps should therefore be taken to protect it. In its original form, the protection of farmers against livestock losses consisted mainly of fellow-citizens helping one another out. Later, and within small areas (communes, districts), farmers' associations were set up to compensate their members for losses caused by the death of an animal, based on the apportionment principle. The associations thus formed were backed by larger, higher-ranking agencies which acted as reinsurers. This form of coverage, widespread today, particularly in countries with many small private farmers, has one major advantage: it makes it possible to verify the factors constituting the moral hazard, since the members of these associations can freely decide by inspection at first hand whether circumstances exist likely to increase the hazard or even to give rise to a claim.

68. Insurance against loss of livestock, when organized on a commercial basis, creates major problems and is therefore fairly rare, being confined to a few specific categories (e.g. insurance of race-horses).

69. Insurance against loss of livestock is of major importance in the socialist countries, where agricultural co-operatives have been set up. Livestock insurance in most of these countries takes the form, in varying degrees, of compulsory insurance required by law. Should this compulsory insurance fail to provide coverage for all types of animal or all the attendant risks, coverage can still be secured, mainly through optional or voluntary insurance.

(b) Risks covered

70. (i) The main risk covered is the loss of an animal by death or force slaughter following an accident or disease;

(ii) Death or forced slaughter following an operation, parturition or abortion, as well as slaughter by order of the authorities;

(iii) Permanent loss of an animal's services (horses, asses);

(iv) Permanent loss of the reproductive capacity of breeding stock.

(c) Exclusions

71. Some risks are occasionally excluded from this type of coverage, e.g. epizootic diseases, tuberculosis, operations, diseases from which the animal was suffering when the policy was taken out. Some of these risks can nevertheless be covered by payment of a surcharge.

(d) Amount of coverage, compensation

72. Where animals are insured individually, even the amount of the insurance is determine separately on the basis of their value. The value of an animal may be the carcass value if it is bred for consumption, the value of its services if it is bred for other purposes (draught animals, etc.), or, lastly, the value of the animal if it is intended for breeding. Compensation will be based on these figures, less the residual value, if any, of the animal after loss of its services or reproductive capacity.

73. Where livestock is insured as a group, particularly in the case of compulsory insuranc of cattle for the value of their carcass or services, the amount of the insurance is not determined separately for each animal, the premium being calculated in relation to the number of animals on a given date. Newly acquired animals are automatically included in the coverage.

74. As the moral hazard in this type of insurance is significant, the insured must be encouraged to take steps to ensure the survival or recovery of the animal. A deductible, usually 20 per cent, is therefore applied. Under the Czechoslovak insurance conditions, the deductible is applied in the event of death (10 per cent) but not of forced slaughter.

(e) Insurance against loss of livestock in Czechoslovakia and the Soviet Union

75. In Czechoslovakia until the end of 1966 all livestock belonging to agricultural co-operatives were covered by compulsory insurance for their carcass value. Optional insurance was available for coverage in excess of that amount. Under this scheme coverage was even extended to minor losses resulting from the death or forced slaughter

of individual animals. Compared with the total value of an agricultural co-operative's livestock, the small amounts involved in this type of compensation were of no economic importance to it. On the other hand, they placed a heavy burden on the insurer's settlement operations. Accordingly, under the recent amendments affecting the compulsory insurance of agricultural co-operatives, which came into force on 1 January 1967, the compulsory insurance of livestock belonging to State co-operatives and farms was restricted to losses caused by natural forces (fire, lightning, etc.), and the amount of compensation is always based on the selling price. Coverage of losses due to death or forced slaughter was transferred completely to the field of optional insurance. On the grounds that co-operatives should be insured mainly against major disasters likely to lead to substantial losses, the Ministry of Agriculture decided that the optional insurance of livestock should be restricted to perils likely to cause losses deemed to be calamitous. Optional livestock insurance consists chiefly of coverage against loss due to contagious diseases of all kinds, poisoning, acute meteorism and electrocution. Compensation always amounts to the selling price of the animal, less the value, of the usable remains. Coverage is taken out for the whole inventory of livestock and the premium is based on its total book value plus the annual income from stock-farm sales.

76. Needless to say, this new livestock insurance scheme does not prevent farmers from insuring their draught animals and breeding stock in the normal way against death or forced slaughter due to disease of any kind, accident, operation, and so forth. In such cases the premium is based on the number of animals insured.

77. The insurance of breeding-stock in insemination units includes possible damage to female breeding animals occasioned by an accident during covering or by communication of a disease.

78. Insurance of cattle over six months old is included in the combined policies of private farmers. The premium is based on acreage and coverage is only for the carcass value of the animal. Amounts in excess of the carcass value (service or breeding value) may be insured through a special policy.

79. Livestock insurance in the Soviet Union was similarly amended as from 1 January 1968. Compulsory insurance now covers all valuable livestock belonging to kolkhozes, but compensation is paid only in the event of the animal's death or forced slaughter arising from a contagious disease or accident. This restriction is justified on the grounds that any other losses are slight and can be prevented provided adequate precautions are

taken. Only breeding-stock is insured against loss from other causes (non-contagious diseases). Compensation amounts to 70 per cent of the animal's book value. Optional insurance, providing for coverage other than compulsory insurance, is no longer availabl

II. Reserve funds

80. The reserve funds of insurance companies are, by their very nature, different from those of other enterprises. Whereas the reserves of an industrial or business enterprise represent its own funds, accruing from profits, non-life insurance reserves are intended primarily to meet the insurer's commitments and only part of those reserves can be considered to belong to the company itself. It is because of the commitments arising from insurance contracts that the insurer sets up reserve funds.

81. These commitments, for which reserves must be accumulated, may either be already known at the time the reserve fund is set up, or may arise later. Claims may therefore be due either immediately or at some future date. Coverage in respect of known commitme is provided by:

(i) reserve fund for outstanding claims;

(ii) reserve fund for the claim settlement expenses;

(iii) reserve fund to cover other costs;

(iv) reserve fund to cover taxes;

(v) provision for price fluctuations.

Coverage in respect of possible future commitments consists of:

(i) reserve funds for unexpired risks;

(ii) contingency reserve fund.

The reserve fund for outstanding claims may be divided into reserves to meet claims already made and those in respect of losses already sustained but for which claims have not yet been lodged.

82. The reserve funds for outstanding claims, for contingencies and for unexpired risks are particularly important in non-life insurance.

Reserve fund for unexpired risks

83. The premiums written by the insurer during the financial year are intended to meet losses sustained during the period for which they were paid (usually one year). This peri may not coincide with the current year and part of the premium therefore relates to the next calendar year. Hence, depending on the composition of the portfolio and the method of collection, the portion of premiums to be carried forward must be determined, taking

into account the fact that a portion of the premiums written has already been used during the current financial year to meet administrative and management costs. The usual practice is to carry forward 40 per cent of the premiums written.

Reserve fund for outstanding claims

84. For any claim reported but not yet settled by the end of the financial year, a reserve fund must be set up amounting to the sum likely to be paid out in full settlement. This type of reserve can either consist of a lump sum or of an amount based on the statistical evidence of previous years. Individual assessments are highly subjective and may bear little relation to the actual position. In those branches of insurance where there are numerous claims (e.g. motor vehicle) the reserves are usually established on a forfeitary basis by determining the average amount of claims in previous years on statistical evidence. This average figure, which may have to be altered in line with new trends, will be multiplied by the number of claims still outstanding at the end of the financial year. Another method consists in taking the average claim in previous years and multiplying it by the total number of claims made during the current financial year, less the sum of claims already paid.

Contingency reserve fund

85. Even if the frequency of claims in respect of a considerable number of risks covered is fairly regular in accordance with the law of large numbers, the claims curve will differ considerably in some years. The insurer must provide against these fluctuations and must therefore set aside part of the premiums collected with a view to building up a reserve fund to guard against expected fluctuations. The amount to be set aside for this purpose is determined empirically in the light of previous experience over fairly long periods. Mathematical methods are not applied. The position varies considerably on this point, depending on the hazards affecting the different branches of insurance. In some cases the minimum figure for a contingency reserve fund is stipulated in the insurer's articles of association.

86. The reserve fund for outstanding claims and the reserve fund for unexpired risks are not of great importance to an insurer who has a monopoly. Because his portfolio is stable, the reserve fund is much the same at the beginning and at the end of the period. In practice the setting up of these reserve funds can therefore be simplified considerably.

B. Summary of discussion

87. Many speakers said that so far as non-life insurance was concerned the situation in the developing countries was generally characterized by:

(a) the small dimension of the markets in most classes of non-life insurance, with relative predominance of motor vehicle insurance;

(b) heavy dependence on insurance and especially reinsurance services from abroad;

(c) insufficient development of insurance and reinsurance techniques.

These conditions, added to the inherent problems of non-life insurance, such as a more complicated process of statistical analysis and evaluation of risks and a much greater susceptibility to accumulation of risks and exposure to catastrophes and conflagrations, rendered the situation quite difficult.

88. In the opinion of the majority of the participants from developing countries the size of a country's insurance market was generally determined by the size and composition of its population and by the state of development of the country's economy and its industrial base. The size of the insurance market was important, because it imposed certain constraints on the size of its insurance institutions and their operational efficiency. It was pointed out in this connexion that research into such problems as the minimum and optimal size of insurance or reinsurance institutions in a developing economy should be undertaken to help developing countries to decide on what the most efficient structure of their markets should be, because - apart from those countries where insurance was undertaken exclusively by State-owned institutions - most developing countries were suffering from a proliferation of small insurance enterprises. Such small enterprises tended to depend excessively on reinsurance support from other insurance or reinsurance institutions in the country or abroad, as their own retentions were frequently purely nominal. The existence of institutions which passed almost their whole business on to others did not seem justified, except possibly temporarily during the period of commencing business.

89. A suggestion was advanced by some participants concerning the exchange of information and experience between the domestic insurance and reinsurance institutions of developing countries, especially those in the public sector, dealing with non-life insurance business. Just as insurance enterprises in developed market economy countries were united in various international conferences, federations and other bodies either directly or through their national associations, it was similarly considered desirable

that the domestic institutions in developing countries, and especially those operating in the public sector, should come together and establish various professional bodies, in the form of conferences or federations in the respective regions or at the international level. Such co-operation might even lead to better contacts on the operational side.

90. Many participants emphasized the importance of loss prevention measures for non-life branches of insurance. Especially great interest was expressed during the discussion in the problems of maintenance and financing of fire brigade services. Most of the speakers felt that the insurance institutions could not dissociate themselves from financing this field of activity as they were also direct beneficiaries of the services of fire brigades. In many countries, both developed and developing, the insurance institutions contributed to the finances of the fire brigades either on a voluntary or on a compulsory basis through a government scheme or through a professional association. On the other hand, it was contended that the State was also interested in the efficient organization of the fire brigade services and in the financing of their running costs.

91. Several participants from developing countries referred to the risk of so-called catastrophic losses (hazardous events on an exceptionally large scale, causing a big accumulation of heavy claims) inherent in some classes of non-life insurance. New industrial development and diversification of the economy in developing countries would lead to the greater frequency and concentration of high valued risks. Consequently, the insurance industry in developing countries must be ready to evaluate correctly the nature and extent of such new risks and provide the required insurance protection. In this connexion, various methods of setting up special funds for catastrophic losses within the insurance industry were considered. Whatever method for financing such funds was chosen, a certain part of the insurance premiums should be set aside to form the fund. Some participants from developing countries considered that in certain cases it might be possible to set up mixed schemes, with either the central Government or local authorities contributing to such funds. In countries where the Government is directly engaged in insurance activities, the establishment of a mixed scheme might prove to be easier.

92. Several participants from developing countries considered that the idea of establishing a special fund for catastrophic losses might be an appropriate subject for consideration in the context of regional co-operation. Some participants suggested that a regional fund for covering catastrophic losses should preferably be operated on a compulsory basis to secure a sufficiently large volume of premiums and provide an equal degree of protection

to all its members. It was, however, admitted that, although the idea of a regional catastrophe fund looked very attractive and feasible from the theoretical point of view, its practical implementation would require a great deal of preparatory work and understanding between the potentially interested parties.

93. Because in most developing countries the non-life sector of the insurance market was dominated, in terms of premium volume, by motor vehicle insurance and because in these countries the third party legal liability section of the motor vehicle insurance was compulsory, many participants from developing countries considered this branch of insurance more and more as a social service in which the State took an increasing interest. Several other participants from developing countries expressed their concern about the rather unfavourable experience in motor vehicle insurance and suggested possible remedies for the existing situation. In their opinion, one of the crucial problems in motor vehicle insurance was how to increase its efficiency or conversely to reduce the administrative and acquisition costs.

94. A suggestion for the organization of motor vehicle insurance in a developing country was put forward by one participant who considered that it would be of particular advantage to any country where it was compulsory for owners of motor vehicles to insure against third party legal liability. He suggested that a single institution with a sufficiently developed network of branches, but without middlemen, should be entrusted with the carrying out of motor vehicle insurance business in the country. He said that in countries where this class of business was compulsory, there was no need for acquisition by middlemen (agents, brokers etc.), and all intermediary charges could therefore be avoided. Other advantages of this scheme, in the opinion of its sponsor, were the following: (a) uniformity of insurance protection; (b) low administrative expenses owing to economies of scale; (c) availability of nation-wide statistics which would allow the institution to establish the assessment of the risks and their rating on a more scientific basis; (d) greater possibilities of loss prevention; (e) greater simplicity in the claims settlement procedure, especially in cases where two or more insured vehicles were involved in the same accident and (f) more effective arrangements with motor car garages and repair shops.

95. Several participants from developing countries emphasized the importance of insurance for agriculture, an economic sector requiring a very wide and complex system of insurance protection, such as: insurance of buildings, constructions and stocks against fire and

other natural disasters; insurance of farming equipment and machinery, including insurance against liability for loss or damage caused by their use; insurance of crops and livestock. Agriculture was exposed to various types of risks, such as meteorological and biological risks, damage due to theft and riots, personal injury or death caused by accidents as well as various liability risks arising in the course of production or with respect to products. Many participants felt that crop insurance and livestock insurance seemed to require particular study not only because of their specialized nature, but also because of their relative importance.

96. These two types of agricultural insurance were in great demand in developing countries and the demand was still not being adequately satisfied by the insurance industry. Reference was made to a conference on agricultural insurance held in Chile some time ago and organized jointly by the Chilean Government, the Chilean Institute of Agricultural Science (being the responsible agency) and the Inter-American Development Bank. Many participants from developing countries considered that agricultural insurance deserved to be chosen as the subject of a future UNCTAD seminar, either inter-regional or regional.

97. In the discussion of the problems of agricultural insurance it was pointed out by some participants from developing countries that a combined approach to the problems of the organization of agricultural insurance and agricultural credit services might be desirable, inasmuch as many of these problems were common to both types of services. With respect to agricultural insurance, it was suggested by several speakers from developing countries that it might be better to organize this form of insurance on an obligatory basis in order to achieve the widest coverage at as low a cost as possible. Several other participants from developing countries considered that the developing countries, when working out and implementing their agrarian reforms should not lose sight of the potential importance of agricultural insurance for the success of such reforms. The provision of agricultural insurance should be considered as an integral and indispensable part of every agrarian reform plan.

98. Several participants from developing countries, discussing the difficulties experienced in establishing national insurance and reinsurance institutions, stated that these difficulties were largely of two sorts: management and staff problems, and the absence of sufficient statistical information concerning insurance transactions in the country. As a consequence it was very difficult to prepare a soundly-based

feasibility study and especially to establish financial estimates of future transactions and requirements for reinsurance protection. Several participants referred to the shortage of insurance experts and technicians in developing countries and mentioned in this connexion the general lack of interest on the part of foreign insurers operating there in training nationals of these countries. On the other hand it was contended that all these problems should not discourage the developing countries in their efforts to establish their own insurance and reinsurance institutions. Many developing countries which had taken steps to establish their own institutions had had to face these difficulties; in most cases they had overcome them successfully.

99. The experience of setting up the National Insurance Corporation of Nigeria was cited as one of the recent examples in this connexion. This Corporation will be operating both as a direct writing insurer and as a reinsurer. On the direct writing side, it will commence insuring the interests of the Government and of the public corporations, developing its business further in competition with the other companies operating in the Nigerian market. On the reinsurance side the Corporation will receive a 10 per cent quota share, on an obligatory basis, of all the non-life insurance policies concluded in the country by all other insurers. The Nigerian Government undertook all the preparatory work for the establishment of the Corporation, with the assistance of an insurance expert provided within the framework of the United Nations technical assistance programme. Staff matters were resolved in a rather satisfactory manner, and practically all the personnel employed are Nigerian nationals. Further training of the staff will be organized by the Corporation in the course of its business.

100. Although in non-life insurance the income from investments is not taken directly into consideration in computing the premium tariffs (as is done in life insurance), this income is not entirely without effect on the level of premium tariffs as it represents a kind of a cushion on which the institution can fall back in the course of applying its rating policy. As was emphasized by many participants from developing countries, in non-life insurance the volume of investible funds is not insignificant, and their utilization for economic development should not be overlooked. They stated that this was a matter of special concern to those developing countries where life insurance was not yet sufficiently developed to generate an adequate flow of insurance funds for economic development. It was, of course, realized that the investible non-life insurance funds were by their nature rather short-term funds.

101. According to many participants from developing countries, the best way of securing more investible insurance funds in these countries would be by strengthening and developing their national insurance markets. With respect to reinsurance arrangements concluded with the reinsurance institutions outside the country, many participants felt that such arrangements should provide for the retention by the ceding institutions in developing countries of the technical reserves, both the premium reserves for unexpired risks and the reserves for outstanding claims, and other guarantee funds to secure for the country the maximum quantum of the investible assets.

Chapter IV

MARINE CARGO AND HULL INSURANCE

A. Background paper by Mr. Raymond Porter (United Kingdom)

Significance of marine insurance in international trade

1. Marine insurance has a traditional and economic history unequalled in other branches of commerce for variety, richness and interest. Originating with the Phoenicians who navigated the Mediterranean 3,000 years ago, it is believed that the type of insurance which existed at this time was that of 'bottomry' and 'respondentia' These were advances of money on the security of a vessel or cargo, sums which were not recoverable in the case of subsequent total loss of the vessel or cargo. From these types of contract one may trace the development of the ground work on which the superstructure of the insurance system of modern commerce has been built. The current practice of calculating marine insurance rates on insured values originated in the thirteenth century and is attributed to the merchants of the cities of Lombardy and the Hanse merchants of Germany. The financial protection thus provided by insurers has made an important contribution to, and has fostered the growth of, the world's economy particularly in the last three centuries.

2. Marine insurance today is just as essential to overseas trade and shipping as in the past: the perils of the sea, fire and war perils are as real, and though most ships are protected by the navigational aids and safety devices of modern scientific effort, the financial magnitude of a maritime disaster is greater than ever. Shipowners and merchants are not legally compelled to effect marine insurance or to insure their liabilities to third parties, but the modern methods of financing shipping and overseas rrade frequently leave them without any option in the matter. For example, the capital exposed to hazards in modern ships reaches such proportions that few shipping undertakings could or would consider it wise to create the necessary reserves to enable them financially to survive the major shipping catastrophes against which insurance offers protection. Moreover, many ships are mortgaged to banks and other financial institutions, and even though the shipowner may be prepared to operate his ships uninsured the mortgagees insist, quite rightly, upon an insurance policy as collateral security for the mortgage.

3. In the case of cargoes sold in overseas trading operations, the offering of a marine insurance policy as collateral security enables merchants to obtain advance payment for the goods by a bank and thus allows them to trade more widely unhampered

by the limitations of small capital. Without the protection of an insurance policy the shipper who invested all his capital in a shipment of goods overseas would need to await its safe arrival before arranging dispatch of his next shipment.

4. Insurance protection also provides essential financial security for existing industrial installations and other projects which are likely to have an important effect on the development of a country's economy. It is therefore important to appreciate the role played by insurance in both trade and development. In order to gain advantage of the facilities provided by the world's insurance markets, commerce and industry must have free access to all available sources of insurance protection. Traders in both developed and developing countries must be allowed to decide for themselves with whom and on what conditions they wish to insure. They will wish to look for competitive terms coupled with good security.

5. Marine insurance provides confidence, security and stability. By absorbing risks, it stimulates traders to do business and encourages banks and other sources of credit to finance the transactions involved.

6. It is hoped that this paper will prove that international marine insurance, just as much as transportation, banking and communications, is a vital service to world commerce and that every encouragement will be given to ensure that its international character is fully recognized.

International transport insurance of goods

Contracts of sale

7. International trade is a matter of buying and selling and it is usually a part of the function of an export merchant to ship and insure the merchandise to its destination abroad. The purchase of an insurance policy is one of the terms of the contract of sale negotiated by the seller and buyer of the goods. To determine the extent of insurance cover required it is necessary to pay regard to the terms of the particular sales contract. Common forms of contract are those made on the following terms:

(a) "C.I.F." (cost, insurance and freight). The obligations of a seller on a contract of sale on "C.I.F." terms include the provision of marine insurance upon the goods for the benefit of the buyer. The policy will be effected in terms current in trade but there may be stipulations in the contract setting out any special risks to be covered.

(b) "F.O.B." (free on board). Under these contracts the seller must deliver th goods on board ship at his own expense: thereafter the goods are at the buyer's risk, and he then becomes responsible for the freight and any subsequent charges and he must take out such insurance as he requires.

(c) "Ex-ship". The seller has to cause delivery to be made to the buyer from a ship which has arrived at the port of delivery; the buyer has no concern with the marine insurance effected by the seller.

Policies and clauses

8. In the British and some other marine insurance markets the bulk of business is based upon Lloyd's S.G. marine policy form which has come down through the centuries unchanged. This document is used for every conceivable transport insurance as well as shore and third party liability risks in great variety. During the past three hundred years, numerous legal decisions have determined with certainty the meaning of its terms which now serve as a basis for additional clauses, thus sparing the marine market the necessity of drafting special policy forms for each class of business.

9. Most cargo insurances are covered in terms of standard clauses, whether upon "With average" (W.A.), "Free of particular average" (F.P.A.) or "All risks" conditions, according to the extent of the perils insurance. They would probably include perils of the sea, fire, explosion, collision and contact of the ship or craft, heavy weather, thieves, as well as general average and salvage expenses. Customary exceptions comprise losses caused by misconduct of the assured, delay in transit, ordinary wear and tear, ordinary leakage and breakage, inherent vice, and loss caused by rats or vermin. War and strikes, riots and civil commotion risks may also be insured upon the payment of an additional premium.

Trade clauses

10. Standard insurance conditions for various commodities that are regularly ocean-born have been agreed by British insurers with United Kingdom trade associations. The great advantage of standard clauses is that merchants trading in a particular commodity know the conditions universally in use and may more easily define the conditions of insurance in their contracts of sale, and so secure from the underwriter an approved form of policy which will be acceptable to all others engaged in the trade. Commodities which are subject to such standard clauses include rubber, timber, coal, sugar, flour, grain, jute and frozen products.

Open covers

11. As the volume of overseas trade makes it impracticable to insure all cargo shipments individually, various kinds of long-term contracts are effected with insurers by exporters or importers. The most popular form used is the "open cover". This is an agreement between the assured and insurers under which the assured agrees to declare, and the insurers for their part agree to accept, all shipments falling within the scope of the open cover during the stipulated period. It is drafted in general terms and is usually placed for twelve months, subject to 30 days' notice of cancellation by either side. Insurers' aggregate liability during the term of the open cover depends solely upon the number and the total value of the shipments: provision is made, however, for a maximum value to be shipped in any one vessel, which amount forms the basis of individual underwriting lines when the open cover is effected. Some covers are permanent but subject to a cancellation clause.

Certificates of insurance

12. Under the terms of sale for shipments overseas, a marine insurance document is frequently lodged with a bank or despatched to the consignee. Very often the insurance document takes the form of a certificate which supplies evidence to interested parties of the conditions upon which insurance has been effected. The certificate takes the place of the insurance policy and is usually accepted by banking houses provided that the policy under which it has been issued is available if required.

Surveys and claims on damaged goods

13. To facilitate the settlement of cargo claims abroad it is necessary for underwriters to set up agents or branches throughout the world. When insured goods in transit suffer loss or damage, the shipper or consignee can apply to a local representative of the insurer for a survey to be held to establish the cause and extent of the loss or damage. The manner in which the survey report is drawn up is important, for it frequently represents the only evidence on which the insurer and others far removed from the scene of the survey can determine their liability. The completion of the report involves not only the incorporation of the physical evidence found by the surveyor, but also a history of the movement of the goods to which it relates. If, by reason of the peculiar nature of the goods or damage, a surveyor does not feel qualified to express an authoritative opinion, he would take immediate steps to consult an expert with the necessary knowledge. Average agents, such as Lloyd's agents and insurance company agents, are often authorized to settle cargo claims covered by the policy terms.

14. The dramatic changes now taking place in cargo handling, the technological progre in the shipping and air-freight industries and the growth in the accumulation of risks are factors which offer a challenge to cargo insurers everywhere and emphasize the importance of insurance itself. The expansion of world-wide trade and social advancement suggests that for many years to come cargo insurance should be a growth industry and that marine insurers must continue to develop in order to meet future needs.

Marine hull insurance

Types of vessels insured

15. During the last twenty years there has been a substantial growth in the tonnage of the world's merchant fleet. "Lloyd's Register of Shipping Statistical Tables" show that in 1948 the world's gross tonnage for steam and motor vessels amounted to 80,291,593 gross tons whilst the corresponding figure at the end of 1968 was 194,152,378 gross tons. Merchant shipping may be classified into the following main groups:- (i) ocean going tonnage; (ii) short-sea tonnage and (iii) port and river craft, but in recent years the designs of merchant vessels have undergone radical changes as the quest for reduction in labour costs and time in ports has led to a fresh appraisal of ships' cargo handling abilities. Much larger, faster and more specialized vessels are now in use and more are to come. Passenger liners, super-tankers, container ships, liquid petroleum gas carriers, converted tankers and various marine structures such as oil drilling platforms have all presented their different insurance problems. One of the major influences on the hull underwriting account has been the commissioning of giant tankers and bulk cargo carriers. The introduction of these mammoth vessels has brought about problems arising from their extra draught, as well as difficulties created by insufficient salvage, towage and dry-docking facilities.

16. One effect of building specialized ships and of the introduction of electronic equipment is that claims upon hull insurers are becoming more expensive, and unless the training and efficiency of ships' personnel keep pace with these technical advances the claims experience is bound to worsen. The question of maintenance and control of vessels fitted with automatic control of ships' machinery is receiving the attention of insurers and owners who understand that problems may arise.

Shipowners' insurable interests

17. In order to secure complete indemnity against a loss it is usually necessary for a shipowner to effect insurance not only on the hulls of his vessels but also on freight

(and passage money in the case of passenger ships) and on disbursements incurred in fitting out the vessel, including its provisions and stores. With regard to freight insurances, the only partial loss of freight payable is that due to a physical loss of cargo on which freight is due to the shipowner, an example being the washing overboard of a timber deck-load. Should a loss occur, it is paid for in proportion to the total amount of insurance on freight. In addition, insurances against loss of hire or other earnings are sometimes effected, since when a vessel under charter is so damaged that she must be withdrawn from service for repairs her owner will lose the income which the vessel would have earned during this period. The usual form of policy provides for a payment of a daily allowance for a period during which the vessel is unable to trade in excess of a certain number of days, e.g. £500 a day up to a maximum of 90 days in excess of 15 initial days. The terms of these covers are wide and might include delays due to strikes. Rates of premium are competitive, but this type of insurance has a limited market among underwriters. Not all shipowners take out such insurance, but it is more usual to do so when a new type of vessel first comes into service.

18. There are a number of losses and liabilities which may fall on a shipowner and which are not within the scope of a marine insurance policy in ordinary form, e.g. liability for faulty stowage or non-delivery of cargo, shipowners' liability at Common Law as an employer, cost of wreck removal, etc. To obtain cover for these "protection and indemnity" (P and I) risks shipowners can join mutual clubs to protect themselves. P. and I. clubs also cover third-party liabilities not borne by hull insurers, e.g. loss of life, personal injury, damage to harbour wharves and other fixed objects, infringement of rights, quarantine expenses, shipwreck indemnity to master and crew. In the case of small craft, ships under construction and vessels laid up in ports, the marine market sometimes include P. and I. interests in the normal hull policy form. Underwriters realize that P. and I risks have a long "run-off" - as it may be ten years or more before the final total liability is determined, especially when legal actions are involved.

Extent of cover

19. Vessels may be insured on standard conditions or in terms of individual owners clauses. The perils covered by the basic form of policy in use by marine insurance markets throughout the world include perils of the seas, fire, barratry, collision, stranding and similar risks. It is customary for appended clauses to cover loss of

or damage to the hull or machinery caused by accidents in loading or discharging cargo, explosions, crews' negligence and salvage and general average expenses. There are special conditions where the shipowner desires to insure on more limited terms. For example, he may wish to insure "total loss only", or a policy may provide that underwriters shall be liable only for the excess of an agreed sum for all claims other than total loss. Shipowners may also require a more restricted type of insurance for periods during which their vessel is laid up in port.

20. In policies effected for a period of time, it is usual to restrict the trading limits within which the vessel may operate. Variations of such limits may be covered at an additional premium, provided that previous advice is given to insurers. Tramp shipowners naturally require wide liberty of trading and in this regard the British marine insurance market uses "Institute Warranties", which set standard trading limits for shipping not engaged in regular services.

21. The liability of underwriters for the cost of ship repairs is, so far as the British marine insurance market is concerned, explicitly laid down in the United Kingdom by the Marine Insurance Act 1906. This provides that when a ship has been repaired the assured is entitled to the reasonable cost of repairs (less any customary deduction) up to the amount of the sum insured. When the ship has not been repaired, the assured is entitled to be indemnified for depreciation arising from the unrepaired damage but not exceeding the cost of repairing such damage. The principle largely observed by claims adjusters in the British Market is that the insurer will accept liability only for such repairs as will put the vessel into the same state of efficiency as existed before the casualty.

22. Under the standard form of hull policy it is provided that insurers will pay either three-fourths or the whole of collision damages which the assured has to pay as compensation to another vessel, always subject, however, to insurers' liability being limited to the insured value of the vessel. Collision damage to an insured ship is recoverable directly from its insurers if collision is a peril insured against. On paying a loss the hull underwriters concerned are entitled to take over the shipowner's rights to undertake recovery proceedings against owners of the other vessel responsible for the collision.

Insured values

23. It is a peculiarity of hull insurance, compared with other interests, that the extent of liability for partial loss or damage to the ship caused by insured perils

does not depend on the insured value, but the sum insured is the limit of underwriters' liability in respect of any one casualty. Thus, if the repairs to the ship cost £50,000, this will be the liability whether the ship is insured for a value of £1 million or £2 million; in other words, hull underwriters give a "first loss" insurance. A "Disbursement Warranty", which appears in most hull policies, is designed to limit the amounts which may be covered for freight and similar interests to 25 per cent of the hull insured value, thus encouraging the shipowner to maintain fair and reasonable hull values.

Premium rates

24. The main factors which determine the rate of premium in hull underwriting are: (a) type of vessel and trade and classification symbol; (b) ownership and/or management; (c) past claims experience; (d) conditions of insurance; (e) insured value; and (f) repair costs.

25. Since 1964, hull underwriting has brought most unfavourable results despite some increase in premium. During the past five or six years most shipowners have received insurance cover below its actual cost. Insurers during this period have been accepting risks with insufficient consideration for factors such as increases in repair costs, salvage expenses and, in some cases, a lower standard in the crewing and maintenance of vessels. The worst classes of risk in the hull account are single vessel ownerships and war-built mass-produced tonnage. Now that larger tonnage is under construction rating problems are bound to arise. One important question is the adequacy or inadequacy of rates being charged for new tonnage. The chief reasons for bad results are said to be inflation year by year, occasional devaluation of currencies and more frequent losses at sea, both partial and total, often caused by bad navigation. A leading London Company hull underwriter has pointed out that despite the increase in tonnage totally lost and the increase in repair costs, the general level of rates ruling today does no more than match those ruling in 1962 - the last year in which many insurers recorded a profit on hull insurance.

26. It will be apparent from the above that the insurance of hulls and subsidiary interests calls for the exercise of much ingenuity and that in order to be successful an underwriter must display the maximum ability, good judgement, enterprise and common sense. He must also have a wide knowledge of the international marine market and its problems as well as being able to make wise use of reinsurance facilities.

Characteristics of some other specific types of insurance connected with or arising out of international trade and other economic exchanges

"Sellers' interest"

27. An important type of risk, which is ancillary to marine insurance, arises in cases in which a shipper effects a "sellers' interest" insurance in respect of goods sold on "cost and freight" terms. Under such sale contracts the seller is not required to furnish to the buyer a policy of marine insurance and it is left to the buyer to arrange insurance from the time he takes over the title to the goods. In these circumstances the seller may be without insurance security during the period from the commencement of the transit until the acceptance of the documents of title by the buyer.

28. In order to protect himself, the shipper takes out a "sellers' interest" insurance against loss of or damage to the merchandise. This policy is effective also in the event of the ownership of the goods remaining with the seller due to the buyer failing to take up the documents of title.

Rejection risks

29. This form of insurance provides cover against financial loss which the assured would suffer should his shipments be rejected by those governmental authorities which regulate the import of canned goods, frozen meat and other foodstuffs. Lloyd's and British marine insurance companies have jointly produced standard sets of clauses applying to the rejection of meat and other foodstuffs, and it is a basic requirement of such insurance that prior to shipment the assured must have fully complied with relevant governmental regulations both of the country of origin and of the country of destination.

Export credit

30. Compared with the home trade, the business of selling abroad can be full of risks. The exporter may suffer considerable loss if, for example, his foreign buyer fails to pay or the importing country prevents the transfer of payment in local currency, or political disturbances or outbreak of war frustrate, the performance of the contract. These are risks over which the exporter has little control and which he cannot always foresee. Today's world-wide demand for longer credit serves only to intensify them, but it is possible to obtain protection against these risks through export credit insurance. It is not usual for marine insurers to undertake such risks, and so far as the United Kingdom is concerned cover is mainly assumed either by the Trade Indemnity Company Limited or by the Export Credits Guarantee Department of the Board of Trade.

Road transit risks

31. The increase in road transit risks during the last decade continues, with a marked tendency towards very large individual consignments, sometimes caused by large multiple stores replacing small enterprises. The gradual removal of customs duties and other trade barriers, and improvements in the services provided by vehicle-carrying ships, are likely to encourage further growth in this mode of transport, particularly in Western Europe.

32. The insurances of goods in transit by road fall into two main categories: (i) insurance for account of the trader or owner of the goods, and (ii) insurance of the liabilities of the carrier. In due course the scope of insurance cover is likely to be influenced by provisions appearing in a "Through bill of lading" which is a single document applying to all road, rail and sea sections of an international transit where the road vehicle is the principal form of conveyance. The main factors which influence the underwriting of road transit risks are: (a) the type of goods, (b) the sum insured, (c) the class of vehicle, (d) methods of transit and security arrangements, and (e) previous loss experience.

Nuclear shipments

33. The employment of "atomic energy" for various operations has undoubtedly introduced new and accentuated hazards with which the marine insurer must familiarize himself, especially with regard to nuclear propelled ships and shipments of irradiated materials. Some nuclear shipments are already insured on standard conditions, including loss or damage caused by atomic fission or radio-active force. During recent years, much progress has been achieved in arriving at international uniformity in imposing liabilities upon owner/operators of atomic piles and/or radio-active materials and a number of countries are in process of promulgating ratifying legislation.

34. Meanwhile, the extent of insurance cover available for nuclear hazards varies widely from country to country. Some markets give full cover; others give limited cover whilst some others are not prepared to grant any form of nuclear insurance whatever. Where cover is given, underwriters must see to it that full provision is made for adequate reserves to meet liabilities which may not be known for some years.

Shipowners' liability to cargoes

35. The shipowner's liability to cargo under the terms of various Conventions, is invariably based on the degree of negligence which can be proved against him as a carrier. In the absence of negligence no liability arises, and it is fair to say that

for the large majority of cargo claims settled by marine insurance companies and underwriters there is no possibility of recovery from the carrying vessel. From the shipper's angle, the point to emphasize is that marine insurance provides cover against all fortuitous loss or damage at economic rates, whereas the shipowner, under the terms of his bill of lading, is merely covering his legal liability as a carrier. Insurance premium and freight rates are adjusted accordingly and there is no question of double insurance.

Average disbursements

36. Average disbursements insurances are usually effected by shipowners to protect themselves immediately after a general average act has occurred. In the event of a subsequent total loss of the vessel and cargo before arrival at destination the shipowner would be unable to recover any of the expenditure incurred on behalf of all parties involved in the previous casualty. The main purpose of average disbursements insurance, therefore, is to protect the shipowner against failure to recover general average disbursements should the ship and cargo be subsequently lost.

Shipbuilding risks

37. In this class of business the marine insurance market normally grants cover against risks of loss of or damage to the subject-matter insured. Shipbuilders' insurances also provide for general average and salvage charges, third party claims arising from collision of the insured vessel during sea trials, and protection and indemnity liabilities which mainly apply to third-party claims. Rates of premium are dependent upon the contract value or completed value of the ship and its period of construction; the claims record of the shipbuilding yard and the number of passengers to be carried by the vessel. It is customary to stipulate a sum below which the assured must bear each claim uninsured.

Ship-repairers' liabilities

38. Ship-repairers' liability insurances cover the legal liability of the assured for loss of or damage to any vessel or craft in their custody. The policy also insures the ship-repairers' legal liability for loss of or damage to cargo or other property appertaining to such vessels or craft, including damages resulting from loss of life and bodily injury to persons arising from the ship-repairing operations of the assured. These contracts are very comprehensive in their nature and are based upon the gross repair charges of the assured during a twelve-monthly period.

Towage risks

39. Towage risks involve vessels of all kinds, including vessels sold for scrap and complete oil rig installations, as well as large and small floating docks new and old. Vital considerations are the experience of the towage contractor, the suitability of the tugs and equipment and their past claims record. It is of importance that the tow be physically fitted to meet the hazards likely to be encountered. The vessels undergoing towage are often of very awkward structure, with high superstructures, shallow draught, lack of stability and insufficient scantlings to stand up to ocean voyage. Underwriters to whom such risks are offered need sound advice on the technical aspects, and should require that all necessary precautions are taken, such as the closing of all openings and the removal of high superstructures before towage is commenced.

Aviation hulls

40. The marine market's participation in all aspects of aviation hull business is very considerable. The aviation market proper leads most business but marine underwriters play a most important part. Within the next few years the advent of "jumbo-jets" and large supersonic aircraft is likely to present a capacity problem. The features are in the main twofold: first, the size of the hull values, and secondly, the increased seating capacity of these future giants of the air. The cost of an air disaster is likely to be much higher whether measured in terms of human life or in terms of amounts insured, for in addition to, say, $25 million hull values there is the possibility of legal liability claims of perhaps $100,000 per passenger for up to nearly 500 seats, or more. Apart from the difficulty of adequate rating for current and known types of risk, insurers are faced with the problems created by the continual introduction of new types of aircraft.

Air cushion vehicles (Hovercraft)

41. Developments in air cushion vehicles have prompted marine and aviation underwriters to provide special terms for this type of craft, including third-party liabilities. Air cushion vehicles will be used mostly for operations over the sea or inland waters. Current policies comprise a mixture of marine and aviation clauses which cover the air cushion vehicle whilst on the ground or on the water or in hover. Underwriters are mindful of the fact that these vessels are more dangerous than ships because they can reach 80 knots on the sea surface, with possible future increase to 100 knots, which means smaller margins of safety in navigation. Whilst moving over land in the United Kingdom they are subject to the Road Traffic Act.

Package policies

42. A package policy is a new type of insurance created to enable big industrial concerns to have one policy covering all their ships, cargo, rigs, shoreside properties and third party liabilities. Such policies insure the property against most risks of loss or damage plus some third-party liabilities. In recent years, the London market has insisted on sectionalized policies for package deals. This means that each section of the package policy is subject to its own proper, old-established, clauses; i.e. hulls are made subject to hull insurance conditions, whilst shoreside properties are insured by standard non-marine clauses, and so on.

The problems of obtaining the most favourable conditions
in marine (cargo and hull) insurance at competitive rates

Influence of competition

43. Competition, properly conducted, is an essential feature of international marine insurance and has been a predominant influence upon underwriters in providing first-clas security at the most economic cost. Legitimate and responsible competition stimulates business efficiency and keeps profit margins within reasonable bounds, but many of the world's marine insurance markets are now operating at a loss owing to inflation and consequential higher costs. Inevitably, competition has increased because of the rapidly growing needs and increasing capacity of various national markets where, in many instances, lower and often uneconomic rates have been for a time readily available for both hull and cargo business. The element of competition can help to promote the best interests of insurers and their policy holders only if it is reasonably and prudently exercised.

Capacity of insurers

44. One of the most important issues facing international marine insurers today is whether the capacity of the world's insurance market is adequate at a time when values are still rising rapidly. Capacity is linked with profitability, and in times of adverse underwriting experience the capacity of the insurers tends to contract, although this may be offset by new entrants into the market. Large marine risks such as new liners costing, say £30 million are being fully covered, but certain liability risks in the future, such as those arising from oil pollution, windstorms, earthquake and radioactive contamination, may strain market capacity to the utmost. Consequently, authorities should not introduce restrictions which limit the capacity of insurers and prevent worldwide insurance or reinsurance from being made freely available, wherever

required. Marine insurers can be expected to adapt themselves in such a way as to meet capacity needs.

45. Without full and adequate insurance facilities international trade could be hampered and prevented from achieving its full development. Easy access to large and competitive markets (which may involve the use of independent brokers specializing in international insurance) is necessary if marine insurance is to be obtained at the lowest possible economic cost.

Adverse factors

46. Inflation continues to be one of the most serious problems confronting underwriters. They are faced constantly with increases in costs, high claims frequency and increasing traffic density on land, on water and in the air. At the same time, the insurance markets throughout the world are being hit by an increasing number of catastrophes and major casualties which give rise to either unprecedented single risk losses, or an accumulation of loss from a single cause spread over many individual risks. A further factor which exerts a predominant influence on marine underwriting is the tendency for industry to require more comprehensive protection. Underwriters have granted these concessions sometimes without an adequate increase in premium costs and have had to call for higher rates on renewal.

47. Organized crime, unsuitable packaging, failure of carriers and other bailees to provide proper care for the goods in their custody, port congestion and insufficient handling and storage facilities have become almost permanent adverse factors.

48. It follows from the above that, at a time when individual large losses are increasing, it behoves insurers to make a more accurate assessment of their underwriting and ensure that their insurance commitment is adequately priced. There are signs that the hard lessons learned by underwriters in recent years are leading to improved terms in maritime insurance. In this regard insurers from developed countries have shown their willingness to assist the growth and profitability of insurance markets within the developing countries. This process has been going on for a long time by a natural evolution in which direct operation by branches of foreign insurance companies has involved the training of local staff. In addition, developed countries have for many years provided special training facilities in home markets for nationals of developing countries, and the consequential growing knowledge and awareness of insurance has led to the establishment of domestic companies in competition with foreign insurers.

Foreign exchange considerations in marine insurance and their effect on balance of payments

Capital movements

49. When a major disaster such as windstorm, earthquake or war occurs, the resulting inflow from foreign insurance settlements may be a vital element in preserving stability of the local economy. It cannot be stressed too strongly that the protection provided by insurance can work properly only if funds are freely interchangeable, and if the security offered is able to pay a major catastrophe claim or series of claims in any area of the world. Exchange controls have sometimes prevented adequate funds from being made available to pay for foreign insurance protections, but it must be pointed out that the amount of foreign exchange involved in the payment of marine insurance premiums to underwriters abroad is relatively small compared with the whole of a country's exchange transactions. Such amounts are even smaller when one realizes that substantial sums are returned in the payment of claims and commission and that a large proportion of premiums collected are used to pay for local administrative expenses. Thus the net movement of insurance capital abroad is merely the balance, if any, of premiums over claims and expenses and it may often be in favour of the developing country concerned. Consequently, the business of writing foreign risks depends very much on the freedom to transfer available funds from one country to another as required.

Premium reserves

50. There have been suggestions that the developed countries should not expect to receive payment of all premiums due but should be content to leave a large proportion in the country of origin for investment in local industry. The ability of insurers to meet their obligations to pay claims almost as soon as they are presented depends on the prompt payment of premiums. Since it is not practical for international insurers to maintain reserves in each country, "short-term" reserves have to be held in liquid funds to allow for a "run off" of claims on unexpired contracts as well as for unsettled or late claims. These reserves, part of which may be available for investment, cannot be regarded as savings of the policy holder; they represent the pool of funds from which the replacement of damaged property or other loss is to be financed. Surplus funds in excess of "short-term" reserves must form the central free reserves of the insurer which are available to meet exceptional needs irrespective of national frontiers. They must, therefore, remain under the unrestricted control of the insurer's head office.

Restrictive legislation

51. A change in the status of developing countries has often been followed by a trend towards the fostering of local insurance enterprises and this has prompted the enactment of restrictive insurance legislation in the countries concerned. The suggestion that developing countries should concentrate on buying "F.O.B." and selling "C.I.F." in order to avoid payment of insurance premiums abroad and sometimes to control shipments is, to say the least, debatable. Developing countries are exporters of raw materials and importers of manufactured goods. The buyers of raw materials have a right to control the handling of their insurance requirements and, understandably enough, prefer to deal through long-established connexions with insurers thereby obtaining the cover required and, in the event of claims, payment without delay in their own currency.

52. For this reason, marine and aviation insurers maintain that the assured persons dealing in these classes of business should be left the maximum freedom in deciding where their insurances should be placed. This freedom is stated clearly in the OECD Code of Liberalization of Current Invisible Operations in the following terms, though only so far as concerns insurance relating to goods in international trade;

> "The taking out of insurance contracts relating to goods in international trade and the transfers required for the execution of such contracts or for the exercise of rights arising therefrom shall be free".

In maintaining this position, it should be pointed out that marine insurers are dealing with business enterprises well qualified to decide where their best commercial interests lie in respect of risks to be covered, jurisdiction to be accepted, and security behind the insurance policy.

53. Within the European Economic Community (the Common Market) draft Directives setting out the restrictive conditions under which it is proposed that insurance business may be conducted within the six Common Market countries have been drawn up in Brussels for submission to the Commission. There would be supervision or control by the supervisory authorities in each country. The terms for third countries are also in draft. There are strong grounds for saying that in the best interest of international trade, marine and aviation business should be free from such controls. Only in this way can the full capacity of the world's insurance market be brought into operation.

54. A national marine insurance industry which contributes to a national economy is not created behind a protective barrier of restrictive measures but can be established and grow only by rendering a service on a freely competitive basis.

Loss prevention

Preventable losses

55. All those engaged in world trade are interested in the delivery of merchandise in sound condition and in the avoidance of economic waste. It is estimated that 80 per cent of the losses on goods in transit arise from preventable causes. These include theft, pilferage, non-delivery, breakage, leakage, water damage, contamination and similar risks. The shipper has some control over this loss group in deciding the method to protect his cargoes, since approximately 50 per cent of preventable losses arise during handling and storage. Theft, pilferage and non-delivery claims account for approximately 20 per cent of cargo losses whilst the incursion of sea water, heavy weather damage, fresh water and sweat account for the remainder. Theft and pilferage losses could be reduced by using well constructed containers and eliminating any descriptive marking of the contents, particularly in the so-called "luxury class".

Basic remedies

56. Improved methods of moving goods promise advantages available to any country, regardless of its present state of development. However, the highly sophisticated container concept might not be instantly adaptable, particularly where door-to-door inland delivery of the container is not possible. Port facilities, handling equipment, railway and trucking facilities and the consignee's warehouse must all be able to permit the 10, 20, 30 or 40 ft. container to move to its destination. Experience has shown that it will be some time before most ports in the world are ready for containerized transport. The shipping of cargo in large unit loads should lead to a substantial reduction in the number of handlings of individual packages and in the exposure of goods to adverse weather conditions, pilferage and breakage. Apart from improvements in cargo handling and storage facilities there are two other significant factors in controlling cargo losses: first, free time for cargo to remain on a pier or in a customs warehouse must be limited, since a substantial factor in loss prevention is the expeditious movement of goods; secondly, the period during which goods are exposed to severe weather conditions and to theft and pilferage must be reduced.

57. Cargo loss prevention is a subject which has formed an important part of the discussions of the International Union of Marine Insurance over a period of many years. The Union's Committee on Cargo Loss Prevention has collected technical information on preventable losses in world commerce. This experience reflects the knowledge of underwriters in many countries, and the Committee has prepared recommendations to

prevent or minimize such losses. The International Union of Marine Insurance has stressed that the adoption of their loss prevention recommendations will promote greater efficiency in overseas trade. The recommendations are divided into six sections, addressed to (a) shippers; (b) consignees; (c) ocean carriers; (d) port and terminal operators; (e) air terminal operators; and (f) marine underwriters. The Union is keenly aware of the need for community action in individual ports to accomplish many of the recommendations and measures called for and invites world-wide attention to the importance of co-operation to bring about much needed improvements.

Containers

58. The advent of the container has in many instances transferred cargo handling responsibilities from those accustomed to handling cargo to those with no previous training or experience. A study of underwriting experience of containerized goods has revealed that losses are generally caused by:- (a) theft of contents (due to poor locks, seals and security); (b) water damage; (c) condensation; (d) improper handling; and (e) faulty stowage. It is essential, therefore, that regard is paid to the seaworthiness of containers and to the necessity of fitting ventilation and humidity and/or refrigeration controls. Another important consideration is that insurers ought to satisfy themselves that all the cargo handling facilities to be used are adequate to lift heavy loads.

Sendings by air

59. The growth of the carriage of goods by air is reflected in the large sums being invested in this branch of the transport industry, and it is obvious that the volume of goods carried by air will increase further when "jumbo-jets" and supersonic aircraft are in service.

60. Losses of diamonds and jewellery have been too numerous during recent years on all international routes and it is evident that the cargo handling facilities have not kept pace with the substantial increase in the number of consignments by air. Security measures are often totally inadequate and sometimes non-existent. It has become apparent that there is much room for improvement and that Governments should take steps, if necessary by legislation, to compel airport authorities and airline operators to provide much better protection and supervision of goods at airports and during transit.

Hull loss prevention

61. Marine underwriters have been able to take an active part in promoting a number of recommendations to reduce claims for loss of or damage to cargoes, but in hull insurances loss prevention is more difficult because of the technicalities involved.

Maritime safety regulations are principally the responsibility of individual Government which sometimes act upon recommendations of various international authorities, such as the Intergovernmental Maritime Consultative Organization. Current proposals under consideration by these authorities include (a) adoption of sea lanes; (b) restriction of speeds in high density areas; (c) periodic survey of navigational equipment; (d) use of automatic pilots; and (e) reinforcement of "look outs".

B. Summary of discussion

62. The author of the background paper and some speakers expressed the view that access to leading insurance markets should be unrestricted, on the grounds that free competition would secure the best possible terms of the cover at the lowest price. Many participants from developing countries did not agree with this general concept, which in their opinion did not serve the interests of developing countries or, in particular, the cause of establishing and developing national insurance markets in this branch of insurance. In this connexion, several participants from developing countries emphasized that hitherto insurance services relating to international trade had been concentrated in only a few commercial centres in the developed market economy countries from which the largest insurance concerns had been operating either through their agencies and branches or through subsidiaries in other countries, whilst the developing countries as a group still largely remained buyers of such services and suffered, as a result of their position, a serious drain on their foreign exchange resources, with adverse effects on their balance of payments. It was also stated that these traditional concerns were often opposed to any insurance control exercised by developing countries though they accepted such control in the countries where their head offices were situated.

63. According to participants from developing countries, so long as the economic imbalance between the developing countries and the developed market economy countries existed, the application of the principle of freedom of marine insurance in the sense of freedom of the client to choose the insurer, would tend to benefit the traditional centres of insurance. They stated that because for most of the developing countries the principal export items were raw materials or agricultural products commonly sold on an F.O.B. basis, whereas the main import items were machinery and other manufactures bought by developing countries on C.I.F. conditions, the developing countries tended to lose marine insurance on both exports and imports to the insurance institutions in the developed market economy countries. The only way for the developing countries to

counterbalance their disadvantages would be to introduce protection measures designed to link marine insurance with their trade policies and ensure that at least a fair part of marine insurance was placed with their national insurance institutions.

64. In discussing the problems of market capacity, many participants from developing countries referred to the fact that, owing to a rather unfavourable experience during the last few years, the marine insurance market was becoming tighter and the terms of insurance and the rates of premium were hardening. Apart from the poor underwriting results the present market capacity problems were attributable to (a) the appearance of large or giant vessels, which affected both sections of the market : goods and hulls; (b) the magnitude and nature of liability risks, for instance oil pollution as a result of damage to super tankers; (c) congestion in ports and insufficiency of port and cargo handling facilities. These participants considered that, in order to offset the harder terms of marine insurance, developing countries should try to reduce their dependence on these services obtained from abroad and strengthen the retention capacity of their national insurance institutions and of their national markets as a whole.

65. As a practical method for achieving these objectives, it was suggested by some participants from developing countries that insurance institutions operating in a developing country's market should be encouraged to participate in the marine insurance business originating from that country, either through a market-wide pool or through an institution acting as the underwriter of such business on behalf of all the market insurers. Such a pool or institution would be only reinsuring, on behalf of all those participating in the arrangement, all the residual business not absorbed by the market. Besides utilizing the market capacity more fully, it would be in a much stronger position to obtain better terms of reinsurance for its cessions en bloc in view of the more balanced composition and the size of the portfolio and a higher bargaining power resulting therefrom.

66. Several participants referred to the role of marine insurance as a collateral in international trade and its financing. The financing institutions usually required that foreign trade goods be adequately insured. So far as present banking practices were concerned, such institutions would often insist that insurance be taken out with the so-called approved insurers. It was stated in this connexion that this practice did not work to the advantage of developing countries for two main reasons : first, the concentration of financing institutions in the developed market economy countries, which created the natural tendency to request that insurance be taken out with the insurance institutions in the same country. Secondly, many national insurance institutions in

developing countries had been established recently and had not as yet been able to develop a world-wide network of claims inspection or settling agents; consequently, they had to approach professional firms of international claims adjusters, which were as a rule established in developed market economy countries. Some participants added that the status of claims settling agency was not granted easily to the insurance institutions of the developing countries.

Chapter V

REINSURANCE

A. Background paper by Mr. Marcel Grossmann (Switzerland)

1. The purpose of this paper is to consider the economic, financial and perhaps also social function of the machinery of reinsurance. From a purely theoretical point of view it might be thought that under certain conditions direct insurers would not be in need of reinsurance at all. These certain conditions might be described as follows, though it should be stressed that practice differs considerably from theory:

(a) With respect to any particular branch of insurance, the existence of comprehensive and reliable statistics of volume and frequency of losses during recent years, on the basis of which the appropriate premiums to be paid by the insured can be calculated precisely;

(b) Agreement to and payment of the premiums by the insured;

(c) The capacity of the direct insurance office concerned to underwrite in each insurance branch or sub-branch a sufficient number of like risks, so that the law of large numbers may be applied.

2. In practice, however these preconditions are rarely fully realized, with the consequence that the theoretical balance outlined above is in fact only rarely achieved. Moreover - and this is a further serious qualification of the theoretical situation - although it is possible to compute, by means of probability calculations, the frequency of losses likely to occur in any particular branch of the insurance business, the volume of losses and especially the volume of big losses will vary unpredictably and considerably from year to year in cases where a given insurance portfolio is composed of policies that insure sums which themselves vary enormously. In such cases, even the law of large numbers and the probability calculations will not protect the direct insurer from very unwelcome year-to-year fluctuations in the aggregate of the losses to be compensated. It is the function of reinsurance to provide the direct insurer with the possibility of covering and protecting himself against fluctuations and variations of this kind.

3. Lastly, there is always the possibility of major or catastrophic events which may exert a decisive influence on the technical and financial standing of the direct insurance offices of a whole country or even a whole region.

4. It follows, therefore, that almost every direct insurer has a practical need of protection by one or more reinsurance offices; the volume and nature of the protection may vary considerably from company to company.

5. The question: what is the economic importance of reinsurance in securing the financial equilibrium and operational balance of individual insurance institutions? may therefore be answered in this way: the most important and basic function of the reinsurer is to bear a certain portion of the risks underwritten by the direct insurers. The raison d'être of the reinsurance industry is that it offers this cover and fulfils the obligations deriving therefrom punctually and even in difficult circumstances. This is the intrinsic service which reinsurers are rendering to the individual insurance institutions of a particular country as well as to the economy of that country as a whole.

6. In the foregoing remarks I have described the basic functions of reinsurance as an economic institution, without discussing the relative merits of international and purely national reinsurance operations. In the context of this seminar, it is surely appropriate, however, to consider the desirability of expanding the capacity and strength of the national reinsurance markets of developing countries beyond their existing confines.

7. Although the question is of evident importance to the insurance and reinsurance policy of developing countries, it is rather difficult to give a clear-cut answer. It can be said, however, that the volume and importance of big and even giant risks in a fast growing world economy are increasing in such a way that only through the combined efforts of all the financially strong and well equipped reinsurance institutions of the whole world will they be able to cover these risks quickly and at a reasonable price and to bear the losses arising therefrom. The fact that the international reinsurance market is completely free of any monopolistic or oligopolistic tendency is not new, and it can be taken for granted that such tendencies would, in the world of tomorrow, be even more at variance with economic conditions. Basically, therefore, there seems to be no argument against the creation or strengthening of reinsurance carriers working mainly in developing countries and being domiciled there, if certain conditions can be realized. I should like to summarize these conditions as follows:

(a) There must exist a national insurance market of a certain size and volume. Without such a market, a newly created reinsurance company would be operating in a vacuum for no or not sufficient business can be ceded to this institution.

(b) These national reinsurance institutions should not, through the application of unsatisfactory conditions or the use of uncommercial methods, hinder the development, the underwriting capacity and the financial strength of the insurance institutions of the developing country in question.

(c) They ought not to hesitate to cede to the international reinsurance market those risks which exceed their own retention capacity, whilst not ignoring the fact that international reinsurers, too, are obliged to constitute a more or less balanced reinsurance portfolio, that is a portfolio which is not exclusively composed of big and enormous risks.

(d) The national reinsurance institutions of developing countries ought to be ready to accept a fair share of those big risks, the cover of which is today the foremost problem of the international reinsurance economy; this mission can, however, only be fulfilled by national reinsurance institutions if they themselves, or the State or the private institutions supporting them, are ready to furnish, if necessary, adequate financial support.

8. At this point I should like to summarize the main technical methods of reinsurance. Optional reinsurance, which is also called facultative reinsurance, may be taken out in the case of and with respect to individual insurance policies underwritten by a direct insurer. This type of reinsurance which is the oldest form of reinsurance is very frequent in branches like life and marine insurance and is employed increasingly in order to cover at least a part of those big international risks. On the other hand, the method of obligatory reinsurance treaties, that is, treaties which settle once and for all the conditions applicable to reinsurance and which bind both parties to effect reinsurance cessions in respect of whole portfolios and whole branches, is very often applied in nearly all branches.

9. There are three main forms of obligatory reinsurance treaties:

(a) Quota share reinsurance treaties, by virtue of which a specified quota or share of all the risks of a given branch is ceded to the reinsurer;

(b) Surplus reinsurance treaties, which represent a calculated distribution of risks between the ceding company and the reinsurer according to the volume of the risks, taken individually, and according to the retention capacity of the direct insurer;

(c) Excess of loss reinsurance treaties (or, more broadly, non-proportional reinsurance contracts), under which the reinsurer is responsible for the payment of big losses beyond a certain figure. This most modern - and most discussed - form of reinsurance is frequently applied in branches like motor and general liability, but in view of the rather unhappy experiences made during recent years the reinsurance markets are becoming increasingly reluctant to apply that type of reinsurance without adaptations to the present and future risks situation.

10. Reinsurance relations between direct insurance offices in a developing country and reinsurance carriers in a developed country may undoubtedly have either insignificant or important implications for the balance of payments of both countries, but the nature of these implications cannot be defined in general terms. One point should, however, be stressed: it is not only the insurance premiums ceded to a foreign reinsurance company which influence the balance of payments of a developing country, for these premiums are not paid individually and as such. Rather, the extent of the mutual obligations of ceding companies and reinsurers is the object of a periodic, mostly quarterly, settlement of accounts, and only the credit balance is paid to the creditor. If the aggregate of the premiums ceded to the reinsurer exceeds the commissions and losses to be paid and the reinsurance deposits to be constituted, then the balance will be in favour of the foreign reinsurer and the payment will therefore constitute a currency outflow. If, however, big losses have to be borne by the reinsurer or big deposits have to be constituted by him, then there will be a payment to be made by the reinsurer to the ceding office, and this will represent an inflow item in the balance of payments of the developing country. It must be added, however, that whenever possible, the question of deposits under reinsurance agreements should be settled by mutual agreement of the contracting parties and not by law. The movement of payments in this business is, accordingly, a two-way and not a one-way traffic. Very often a ceding company in a developing country places an "excess of loss" cover with a reinsurance company in a developed country. For many years the treaty reinsurers may not have to pay a loss, with the result that the premium paid by the insurer may seem to be lost and the payment looks like a permanent outflow of currency. Suddenly, after an important loss for instance, the treaty enters into operation and it may well happen, as experience shows, that easily the tenfold or even hundred-fold of an annual premium flows into the country concerned. Virtually all the countries of the world have been living for years in a state of slow or quick, but at all events chronic inflation. It would be tempting to outline in some detail the influence of inflation on reinsurance activities. Unfortunately this will not be possible because the problems involved are very complicated indeed.

11. Quite generally speaking it may be said, however, that <u>prima facie</u> the parties to the reinsurance treaty are not directly influenced by inflation, because

(a) in many cases reinsurance accounts are kept in the currency of the insurance policies, that is to say mainly in the national currency of the country in which the ceding company is domiciled and working, so that the nominal value of premiums, losses and so on remains unchanged even if the intrinsic value of the currency in question has changed;

(b) there is, generally speaking, a balance of mutual obligations existing between the ceding company and the reinsurer at least at the end of the year and under the conditions that part or whole of the technical reserves to the debit of the reinsurer are constituted in the form of reinsurance deposits with the ceding company or of assets constituted in the national currency in question.

12. However, this somewhat optimistic view is a superficial one, for rising prices and the rising costs of living in the country of the direct insurer will, in many branches, increase the nominal value of losses and of costs, so that the accounts of the direct insurer and the reinsurer will be unfavourably influenced by the effect of inflation.1/ In the case of non-proportional reinsurance treaties it is mainly the reinsurer who will have to make higher loss payments and hence bear the heaviest burden of this phenomenon because in consequence of rising prices many losses will tend to exceed the initially specified retention on the loss (unless the latter is progressively adjusted to the intrinsic value of national currencies).

13. When rates of exchange are modified relatively frequently, it may be worthwhile to consider also the effects of devaluations and revaluation on reinsurance relations. Again, superficially, it may seem that reinsurance relations are not greatly affected, at least in so far as reinsurance accounts are kept in the national currency of the policies concerned and as there is monetary equivalence between technical reserves and assets covering these reserves in the books of both the ceding office and the reinsurer. Naturally, according to the direction and the volume of the changes in currency rates applied, the real value of the reciprocal obligations of the parties to the reinsurance treaties will be changed too and, in so far as a foreign currency is concerned, the countervalue of these currency items, expressed in the national currency of either the direct insurer or the reinsurer, will be changed correspondingly.

14. To verify the true extent of the effect of such changes in any particular case very searching analyses and investigations would be needed, but already now it can be said that the modern system of reinsurance accounts made up in one currency but covering risks, premiums and losses expressed in other currencies, would cease to be applicable if fluctuations in currency rates exchange should become still more frequent than in the recent past or a fortiori if a system of more or less widely fluctuating exchange rates were introduced.

1/ This applies especially to the field of the so-called "long-tail business", the general liability and the marine insurance.

15. It is beyond any doubt that the reinsurance institutions, whether national or international, are in a position to play a very important part in the extension of the absorptive capacity of the national insurance markets of developing countries. Indeed, developing countries are hardly likely to be able to establish, in their insurance markets, new national insurance companies without very substantial support from reinsurance institutions, in the form of technical assistance, risk cover and financial capacity.

16. On the other hand, it seems quite natural that, as far as possible, national reinsurance institutions of developing countries should be closely and effectively associated with the trend to expand national insurance markets. As a matter of fact national reinsurance institutions might be able to lighten the burden on the balance of payments of the developing country in question. Whilst these are admittedly very natural and legitimate considerations, it is necessary to add some rather important provisos. As has often been said at UNCTAD meetings, owing to the lack of really dependable and internationally comparable reinsurance statistics, it is at this time simply not possible to state in a reliable way to what extent and in what sense the balances of payments of the individual developing countries, taken individually or as a whole, are influenced by reinsurance transactions crossing national borders. In many cases and in many years, minor or major sums have to be paid out to foreign reinsurers, in other words, in the final analysis, in foreign currency. While this is undoubtedly true, it must at the same time be stated that these payments represent the price to be paid for a very concrete service rendered by those foreign reinsurers, viz their commitment to bear in the future a specified share of mainly heavy losses which may arise.

17. On the other hand, as has been stated before, reinsurance is a two-way traffic, and every internationally active reinsurer could cite many examples of cases in which reinsurance transactions crossing a national border led eventually to sizeable flows of foreign exchange into a particular developing country. If, for instance, the airline of a developing country loses, as a result of an accident, a large modern jet aircraft, it is evident that the lost aircraft cannot be replaced easily unless the necessary foreign currency can be provided.

18. This having been said, it seems quite natural and possible that national reinsurance institutions, established in developing countries should be able to diminish the outflow of reinsurance payments to some extent. I should like to stress the words "to some exte

for it is inconceivable that a national reinsurance institution, doing business only in one country, should be able, without ignoring the basic laws and requirements of the branch, to bear the whole of the risks ceded to it by national insurance companies by itself. I might mention in passing that practical experience shows that national reinsurance institutions of developing countries have no choice but to retrocede heavy risks to the international reinsurance market, with the result that the balance of payments of the country concerned may not ultimately be influenced to any great extent at all.

19. At all events it seems to me very desirable that one day, thanks to the efforts of UNCTAD or of some other body, truly reliable internationally valid reinsurance statistics should give us a clear picture of the real state of affairs in the balances of payments of developed and developing countries, so far as reinsurance transactions are concerned.

20. Quite personally, I would like to add the following remarks: In certain developing countries and with respect to certain foreign insurance companies there seems to be a tendency to settle the technical and financial relations between the agency or branch office, established in a developing country, and the head office of the company concerned in a developed country, according to the forms and rules of reinsurance treaties and of reinsurance accounts. Although in specific cases there may be ample justification for a procedure of this kind, its general use can hardly be supported. I regret to say that, on the basis of general principles, it does not seem justified to apply the terms of reinsurance to those relations. This does not mean that profits realized by an agency or a branch office of a foreign insurance company operating in a developing country ought not to be transferred to the head office at all, for

(a) the foreign insurance company in question has to defray its own expenses for its activity in the developing country, and these expenses have to be set off against the profits realized in the developing country - if any;

(b) the foreign insurance company too is rendering services to the developing country, for instance in the capacity of co-insurer for big risks, and it seems only natural and equitable that a price should be paid for that service.

21. Nevertheless, it would be deplorable if the application of reinsurance terms and techniques in the relations between general agencies and branch offices on the one hand and head offices on the other made it impossible in the future to consider separately the economic and financial implications of direct insurance and reinsurance. The lack of internationally comparable reinsurance statistics makes it impossible, furthermore, to consider in detail the many features of the most important reinsurance markets existing today all over the world.

22. I hope, therefore, that some very general remarks may be sufficient at this stage:

(a) The most important reinsurance market is probably the British. However, it is not customary for the British insurance market to distinguish in a clear way between direct insurance and reinsurance, and hence it is very difficult indeed to identify the British reinsurance market as distinct from the direct insurance market.

(b) In two continental European countries - the Federal Republic of Germany and Switzerland - there are very important reinsurance markets which are active al over the world, mainly owing to the existence of some very big and well-established professional reinsurance companies in these countries.

(c) This does not mean that other European countries would not be in a position to render excellent reinsurance services as well; in this respect mainly France, Italy, Sweden and Denmark ought to be mentioned. In the United States, direct insurance offices and specialized reinsurance companies offer outstanding reinsurance services, although the national insurance market of the United States is so huge that possibly United States reinsurers are less eager and less interested to create reinsurance connexions abroad than are reinsurers domiciled inside narrower markets.

(d) This very superficial picture would be incomplete if I did not mention that some socialist countries of Eastern Europe - principally the USSR and Czechoslovakia - have developed very efficient and internationally active reinsurance bodies as well.

(e) It is noteworthy that the techniques applied by all the reinsurers mentioned above, or rather by all reinsurers of the world, are more or less alike. There is therefore already a harmonization of reinsurance techniques and methods all over the world.

23. It seems quite evident that the building up of reinsurance as an operational method and as an institution is for developing countries at least as necessary as it has been and still is for developed countries. With the increasing strength and diversification of the economy of developing countries, their insurance and reinsurance institutions will likewise grow stronger and it seems entirely natural that more and more of these institutions should, as far as capital, management and personnel are concerned, be partly or wholly in the control of citizens or bodies of the developing countries concerned. It would, however, be an illusion to suppose that in the near or far future the developing countries will be in a position to dispense with the services and the help

of foreign reinsurers altogether or that they will be able to apply to these foreign reinsurers only occasionally and solely in cases of big or enormous risks. The reasons are twofold:

(a) The reinsurance economy is guided by the principle of the spreading of risks to the fullest possible extent. Even very strong professional reinsurers can accept the risks they in fact accept only if and so long as they are in a position to spread a good part of these risks internationally, that is, by retroceding a good part of these risks to a considerable number of other risks carriers in practically all countries. The consequence of this basic factor of reinsurance, which is unfortunately too often ignored, is the fact that even today no single reinsurance market would be able to carry on that kind of business without the continuous assistance of reinsurers of many other countries. This means that the concept of some sort of "reinsurance autonomy" or "reinsurance self-sufficiency" is, even for big developed countries, simply an illusion and a fallacy. This is true, a fortiori for developing countries as well.

(b) The fact that a young insurance company in a developing country has relations with one or more well equipped reinsurance institution does not mean exclusively ceding a given part of the risks underwritten. As a matter of fact, it means very much more: it means technical advice and information provided by the specialized services of the reinsurer; the information and advice which may be essential for developing insurance companies may cover a very wide range of subjects: information about conditions applicable to certain branches and about the practical experience of these branches in other markets, information about financial, economic and monetary problems, advice concerning organizational and personnel problems and so on. It goes without saying that advice of this kind is very important especially for newly established companies, the more so if the advice is provided, as happens very often, personally by specialists temporarily placed at the disposal of the company in question. It would be a mistake to underestimate the value and volume of this kind of technical assistance provided by international reinsurance, just because no statistics are available.

In this connexion I wish to reiterate what has often been said: a sound and quick growth of industry, agriculture and commerce is inconceivable without the support of a strong direct insurance and reinsurance industry, whether national or foreign or mixed.

24. Some remarks have already been made about the importance of technical assistance in the field of insurance and reinsurance. It seems vital to train indigenous reinsurance personnel for developing countries, this personnel being necessary for reinsurance departments of direct insurance writing offices and for specialized reinsurance institutions.

25. For all those who really want to further and facilitate the insurance and reinsurance systems and connexions of developing countries, training ought to be the foremost task. I am convinced that better technical and general knowledge on either side would powerfully contribute to better understanding among those concerned, that is direct insurers and reinsurers, control offices, ministries of finance and public opinion. Remembering some of the many interesting discussions on the subject in UNCTAD, I should like to be able to say that fundamental differences of opinion regarding insurance and reinsurance no longer exist. Yet, the extent and the shape of existing schooling and training opportunities at the disposal of insurance and reinsurance staff from developing countries are still far from satisfactory. In the coming years a very serious effort will have to be made in this field, and any contribution by the UNCTAD services in this direction would be very welcome. I fully realize that many problems still have to be solved. For instance, ought trainees from developing countries to receive their training as far as possible on the spot, that is in their own country? Or would it be preferable to send them to some developed countries? Possibly a compromise solution, that is grouping these trainees regionally, might be, in many respects, the best solution.

26. Furthermore, we have to envisage not just one system of training facilities, but different systems, in keeping with the different social and human groups which are in need of training.

(a) A specialized, if only part-time, school system seems necessary for young people who have completed their compulsory schooling and who are beginning practical work in an office; it is self-evident that this kind of schooling can only be provided on the spot.

(b) Training facilities are necessary, on different levels, for the staff of insurance and reinsurance companies; these facilities may consist of courses intended for virtually the whole staff, or alternatively for the different organizational groups and levels of the insurance and reinsurance companies in question.

(c) Specialized courses - at least partly on a full-time basis - are without any doubt necessary for the future "cadres" of companies, and this kind of instruction may even be the centre-piece of the whole system, for the future of insurance companies taken individually and of insurance and reinsurance markets as a whole may depend on the technical, economic, organizational and human qualities and training of the leading personnel.

(d) Finally, periodic seminars and discussions open to the participation of the active management and of the higher technical staff of insurance and reinsurance institutions coming from all geographical areas of the world, organized at regional and international levels, are extremely important or even decisive for the future development of insurance and reinsurance markets, especially in developing countries.

27. Although I have just stated that in the form of practical realizations we are, in the field of training facilities, still far away from an ideal state of affairs, I would nevertheless underline that some possibilities do exist already. I would only briefly mention that specialized insurance schools for young people from developing countries exist in Zurich, Munich, Tunis and Stockholm, and that famous institutions like the "Chartered Insurance Institute" in London and the "Ecole Nationale d'Assurances" in Paris have accepted for years and still accept very frequently impressive numbers of trainees from developing countries. To this we ought to add all those insurance people who have been trained and who are still trained by insurance and reinsurance companies themselves.

B. Summmary of discussion

28. Many speakers from developing countries, while recognizing that international co-operation in reinsurance was necessary and would continue to play a very significant role, emphasized the need for expanding the national reinsurance services in developing countries in order to reduce their relative dependence on such services from abroad and the outflow of funds resulting from international reinsurance transactions. In this connexion various specific measures that might be taken by a developing country to create or develop its national reinsurance market were recommended, such as (a) creation of domestic reinsurance institutions where they did not as yet exist; (b) encouragement of reinsurance exchanges among the insurance institutions operating in the market; (c) setting up of national reinsurance funds and pools; and (d) various measures to protect and encourage the development of the national reinsurance market and to control the reinsurance transactions in developing countries.

29. Participants from countries in which national reinsurance institutions have been established (Argentina, Chile, Colombia, Costa Rica, Ghana, Iraq, Indonesia, Mali, Nigeria, Pakistan, Poland, Romania, Syria, the United Arab Republic) described how these reinsurance institutions operated and the successes they had achieved in the consolidation of the market and especially in increasing its retention capacity and strengthening the position of the country in the international reinsurance market, as well as the problems they had to overcome. In their opinion the saving in foreign exchange and the improvement of the terms and conditions of their reinsurance arrangements, with the resultant reduction in reinsurance costs, had been considerable. Foreign reinsurance needs had been noticeably lower, at least in relative terms, owing to the better balance of the portfolios of the national reinsurance institutions as compared with those of the individual direct writing institutions.

30. Among various measures recommended, the participants placed great emphasis on the efforts to increase the retention capacity of the national markets in developing countries by means of encouraging reinsurance exchanges among the direct writing companies operating in the market so that they would first seek reinsurance cover from each other, before requesting it from the reinsurers abroad. The actual position in developing countries was described as being quite the reverse when direct writing institutions first approached the foreign reinsurers. Being rather small and financially weak, many insurance institutions in developing countries had been reinsuring a much greater part of their business than would have been necessary if they had first exchanged their business with other national insurance companies. This had hampered the growth of the financial strength of all the national insurance institutions, as they had been working on much smaller and limited portfolios, and consequently the accumulation of their financial and technical reserves had been much slower.

31. Several other participants from developing countries considered that the national retention capacity of the market might be much better utilized through the establishment of national reinsurance funds or pools. It was generally conceded that the insurance institutions in developing countries did not avail themselves of these facilities to any great extent. At the same time, such facilities as national reinsurance funds or pools might be cheaper and simpler to organize than, for instance, a reinsurance institution. In this connexion it was specifically emphasized by several participants that pooling arrangements among insurance and reinsurance institutions in developing countries might reduce or even eliminate the need for reinsurance abroad in such branches

of insurance as motor car business, and ordinary fire, with the resulting savings of foreign exchange. In this connexion, several speakers gave an account of the structure and operation of the existing regional reinsurance pools and described the arrangements for those still in the preparatory stage.

32. Inasmuch as experience of regional reinsurance institutions was practically non-existent, it was suggested by some participants from developing countries that more detailed investigations of the possibilities of establishing such institutions in developing countries should be undertaken by the organizations concerned at both regional and international levels. In preparing such studies, these organizations should consider, in addition to the basic problems of insurance itself, the following specific problems: the homogeneity of the underlying socio-economic structures of the countries concerned; the extent of their co-operation in general economic fields; their external trade and monetary matters. With regard to the structure and the base of operations of such regional reinsurance institutions, it was suggested that the technical methods of cessions to them should be very carefully chosen so that such cessions, be they obligatory or voluntary, should fully encourage the development of the national insurance and reinsurance markets of the countries in the region.

33. Market aspects of reinsurance arrangements of developing countries occupied much of the discussion at the seminar. Several speakers from developing countries stated that, when the actual terms and conditions of reinsurance arrangements were worked out by developing countries, market considerations often had an important influence on the outcome of the discussions between the negotiating parties, the results of the negotiations being thus different from what could be expected if such negotiations were based entirely on the technical requirements and statistical analysis of the business in question. This was noticed particularly by the small new insurance and reinsurance institutions in developing countries, which faced large professional reinsurance institutions in developed market economy countries.

34. Some speakers said that the geographical remoteness of the insurance and reinsurance institutions of developing countries from the principal international reinsurance markets made them dependent all too often on the services of the international reinsurance brokers who tended to place their business again in the leading reinsurance centres. Consequently, most of the insurance and reinsurance institutions in developing countries in search of the reinsurance protection required relied on the existing mechanism, which had not been functioning to their advantage. Strange as it may seem, even the reinsurance connexions between the insurance and reinsurance institutions in developing

countries were sometimes established through an intermediary in a developed market economy country, because of the general lack of information in developing countries about the insurance markets of other developing countries.

35. It was, therefore, felt by most of the participants from the developing countries that their national insurance and reinsurance institutions should co-ordinate their activities better and establish direct reinsurance relations among themselves. In this connexion, the idea of establishing a reinsurance centre of developing countries was advanced for consideration. It was suggested that such a reinsurance centre might help developing countries and their insurance and reinsurance institutions to work together for the common benefit by co-ordinating their activities in reinsurance, exchanging information on reinsurance matters, and establishing useful business contacts and connexions.

Chapter VI

RELATIONS BETWEEN THE STATE AND THE INSURANCE INDUSTRY AND INSURANCE LEGISLATION AND SUPERVISION

A. Background paper by Mr. Jacques de Florinier (France)

1. In most cases the insurance industry was created by private enterprise. In fact, the first attempts to establish a system for compensating risks within a fairly large group of people did not always meet with the approval of the authorities. Since insurance methods were not then fully developed, insurance at first was often regarded as an activity akin to betting or gambling. As such, it seemed to offer the contract signer an unfair wager, the insurer's financial resources being insufficient in case of bad luck.

2. Today, insurance methods have proved themselves; it is universally recognized that similar risks must be grouped together, so as to permit the application of statistical methods. There is even active research in actuarial circles to discover, with the aid of the theory of probability, the scientific requirements for concerns to remain solvent, or a way of calculating a margin of security sufficient to eliminate what is generally called "the risk of ruin". There is no longer any question of the State's opposing the existence of an "insurance sector". Its attitude is no longer suspicious or circumspect: on the contrary, the beneficial economic and social effects of insurance are everywhere recognized. Very often the State no longer merely maintains a benevolent neutrality but actively encourages and facilitates the development of insurance.

3. It is now quite obvious that insurance provides an element of security which is becoming more and more necessary to guard against dangers to means of production, potential losses or damage to personal or collective property, and risks which threaten a man's capacity to work. The development of the human person and of any commercial, industrial or scientific activity rests on the ability to undertake and pursue some continuous activity which is not paralysed by the fear of sudden interruption caused by the accidental loss of the materials of equipment utilized in that activity, or, in the case of a human agent, by the loss of physical or mental ability.

4. This need for security increases as the amount of resources involved increases. In today's economies, with their increasingly intense concentration of the means of production, where the unit cost of every technological device rises as improvements are introduced, the need for insurance is becoming more and more imperative.

5. The State which has become aware of this need will act to ensure that it is satisfied on the best possible terms. In countries where an insurance industry already exists, it will make certain that insurers really provide the security sought. The

insurer must, on the one hand, offer guarantees appropriate to the risks to be covered, and, on the other hand, have the technical and financial means to provide these guarantees. In countries where no insurance industry has as yet developed, the State will endeavour to provide conditions favourable to its creation and proper functioning. It will even find it necessary, sometimes, to take the initiative in shaping the institutions required to meet the need for insurance.

6. For there are circumstances in which private enterprise proves deficient. The private insurer, like any businessman, must calculate the risks his business will run. He can only commit himself if he has a reasonable hope that his enterprise will be a success. Sometimes the risks of failure are such that he will hesitate to accommodate certain insurance needs. This may happen with new and little-known risks, for example, those related to the use of atomic energy or to certain natural disasters, with risks which are so highly concentrated that the rule of sharing and distributing them cannot operate, or, alternatively, with risks in countries where the legal or financial infrastructure or, again, the political hazards, appear incompatible with the exercise of insurance activity.

7. There is thus established between the State and the insurance industry a complex set of relations, which we shall try to analyse.

8. First of all, the State acts indirectly when it lays down the institutional framework within which the insurance concern must operate.

9. Like any business, the insurance concern must comply with the laws governing commercial and financial activities. Generally, the concern's articles of association and the requirements to be satisfied by its directors and by its intermediaries offering contracts to the public are to a large extent dictated by the provisions of the commercial law.

10. Insurance contracts must conform, in many respects, to the civil law.

11. Tax laws, regulations concerning the transfer of money abroad and rules about the keeping of accounts all apply to insurance concerns.

12. In these various matters, however, the ordinary law is often supplemented by special provisions designed to take account of the methods of operation peculiar to this industry and of the need to exercise additional control over it in order to protect the interests of the insured persons and of third parties.

13. The State's duty to make laws and regulations is accompanied by a supervisory function: it must see to it that those laws and regulations are really observed by the managers of the industry. This function is exercised not only by the courts but also,

in a more immediate fashion, by administrative departments. Usually, in countries where there are regulations applying specifically to insurance, the officials who enforce them are experts who have received special training.

14. Apart from these regulatory activities, the State may act more directly, by intervening in the market.

15. The State may, in the first place, supplant the commercial concerns by setting up a national insurance monopoly, which shuts out private enterprise. Or, taking a more flexible approach, it may present itself as a competitor of the private concerns by establishing public institutions which engage in insurance activities and which enjoy certain privileges or advantages.

16. It may act to protect the national market by restricting access to it by foreign concerns, or by prohibiting its nationals from signing insurance contracts direct with the head office of a foreign concern.

17. In order to boost the insurance sector of the economy, the State may encourage the development of certain branches of insurance by offering to those who take out such insurance certain tax benefits or subsidies. Or it may introduce certain types of compulsory insurance, for example, third-party insurance for automobile accidents. Such measures, while increasing business in the relevant branch, are aimed primarily at protecting the interests of victims of accidents.

18. Since the development of insurance depends on a rational organization of the market, the State may promote greater productivity by requiring efficiency in the management of insurance companies, by causing concerns to concentrate, or by facilitating amalgamations or transfers of portfolios. With the same object in view, it may sponsor the training of skilled personnel.

19. Lastly, it may, as part of a general price-control policy, influence the rate schedules of insurance companies by fixing maximum rates for certain categories of insurance.

20. We shall endeavour later to elucidate the importance which such actions may have for the development of a national insurance market. But first we must consider in greater detail the basic form of action taken by the State in the sector which is of special concern to us, that of supervision.

The institutional framework - regulation and supervision

21. Of the two principal forms of State action just referred to, the first, namely, the determination of the institutional framework and the function of supervision, is undoubtedly the more important. It is, in the first place, the State's responsibility to ensure that concerns which are formed to satisfy insurance needs are able to do this,

and that the protection of the insured is genuine. The most general feature of the insurance benefit is that it is a future benefit. In exchange for a premium or assessment paid in advance, the insurer promises to cover, within certain previously agreed limits, the consequences of an event which, in the insurance branches concerned with damage, at least, is of an unpredictable character and will therefore occur at an uncertain date. Insurance supervision must aim at ensuring the precise fulfilment of this undertaking by the insurer. The premiums or assessments he receives must really be used for the performance of the contracts he has signed, and in the event of a claim, the benefit must be what was promised.

22. With this object in view, the State must see to the proper conduct of insurance operations in two important spheres: the legal, and the technical and financial.

Supervision in the legal sphere

23. Here, insurance supervision is concerned with two separate questions: whether the contract is in good and due form, and whether the concern is duly constituted.

(a) As regards the insurance contract, it is important to bear in mind the unequal position of the parties. Actually, free discussion between the insured and the insurer as to the terms of the insurance is scarcely possible. Usually, the insurer presents for the insured's signature a contract whose provisions have been drawn up in advance in the form of general terms applicable to an entire category of risks. The insured is not normally competent to discuss them with the insurer, and finds himself in the position of having to accept the terms offered.

24. The law therefore usually lays down a number of more or less mandatory rules with a view to maintaining a satisfactory balance, from the point of view of equity, between the obligations of the insured and those of the insurer. The law further tries to ensure that the contract will contain all the necessary clarifications concerning the respective obligations of the two parties. In some cases the interests of the signatories to the contract are not the only ones involved. This applies especially to contracts insuring against liability risks. The insurer promises to assume the responsibility of compensating for the damage which may be caused by the insured to third parties. It is thus important to make sure that the third parties who might suffer such damage will derive the greatest possible benefit from the guarantee given by the insurer. The law will consequently also determine the rights of third parties with respect to insurance compensation. In some countries the law gives the third party victim the right to institute direct proceedings against the insurer, or it provides that no compensation may be paid to other persons until the victim has been indemnified.

25. So great is the importance of insurance to third parties, especially where the damages may easily exceed the insured's own ability to pay, that the law ordains compulsory insurance in certain branches (automobile accidents, aircraft accidents, hunting accidents, etc.).

26. The conformity of the terms of the contracts with legal rules is a matter which may be reviewed by the courts normally competent to do so, but in a number of countries the supervisory authority itself takes action in this regard. It requires the general terms of contracts to be communicated to it, and reserves the right to demand any rectifications it deems necessary. The insurer may only use models of contracts which have been approved by the supervisory authority.

27. It is noticeable that this supervision, which was originally confined to verifying the insurer's compliance with legal obligations, is becoming wider in scope. The administrative authorities are finding that they must attend not only to the legality of the contract but also to its clarity and simplicity, and even to its economic necessity. The protection of the interests of the insured and of third parties requires that the guarantee offered should correspond as closely as possible to what is needed.

28. In a similar way, where insurance has been made compulsory, the law sometimes denies the insurer the right to refuse to provide the guarantee to whoever asks for it. If the insurer's refusal is motivated by the particular seriousness of the risk (for example, if an application for automobile insurance comes from a driver who has in the past caused many accidents), exceptional premium terms may be authorized, subject to verification by a special body such as the "bureau de tarification" set up by the French law on compulsory automobile insurance.

(b) As regards the status of the insurance concern itself, legal supervision will relate to its articles of association and perhaps to the qualifications of its directors and of the intermediaries acting on its behalf.

29. The articles are examined in order to verify that the company has been constituted in a legal form authorized for insurance firms. Generally speaking, the business of insurance may be carried on only by a company and not by an individual.

30. Lloyd's of London is an exception to this rule. In Lloyd's, the insurers are individuals who must meet their obligations from their private resources. Although they form syndicates of underwriters, the members of these syndicates are not collectively liable. This mode of operating has been able to survive only because of the very stringent qualifications that must be met by every new candidate.

31. Certain forms of association sometimes have their field of activity restricted by law. Under French law, for example, mutual societies or mutual-type companies with variable assessments may not engage in the life insurance business. Moreover, mutual societies must be territorial or occupational in membership. It was felt necessary to require that there be a certain similarity of interests among the members, who are both the insured and the insurers. The same legislation, however, makes provision for a form of association which is suited to insurance: the mutual-type company.

32. Less common are regulations governing the directors of insurance enterprises. The most frequent requirements concern honesty. Persons who have been convicted of certain offences, especially theft or swindling, are prohibited from exercising the profession.

33. The intermediaries who participate in offering insurance to the public may also be subject to regulations of varying stringency. These sometimes include, in addition to the conditions regarding honesty, qualifications concerning professional competence represented by proof of having completed certain studies, or by a specified period of practical training under the supervision of duly qualified persons or in the employment of an insurance concern.

Supervision in the technical and financial sphere

34. In order to be able duly to execute the insurance contract, the insurer must, of course, have the financial means needed to discharge his obligations. These may be divided broadly into two categories: known debts, and reserves. There is little to be said about the first category, but emphasis must be laid on the indispensability of reserves in insurance. In general, reserves constitute the greater part of the liabilities on the insurer's balance-sheet.

35. In casualty insurance, the reserves are needed for the payment of claims. These are, in the first instance, claims which have arisen during the current financial period but the exact amount of which is not yet definitely known. The size of the reserve, usually known as reserve for outstanding claims, is therefore based on the concern's estimate of the total amount it will probably have to pay in indemnities. Secondly, inasmuch as the term of the contract usually extends beyond the current year, that part of the premium paid in advance that will be needed (a) to cover the costs of administering the contract incurred after the end of the current financial period and (b) to pay any claims which may arise after that date, must be placed in reserve.

36. Here again, the enterprise must make an estimate of its probable expenses. In the matter of life insurance, the reserves - called the policy reserves - are likewise intended for the payment of the compensation provided for in the contract. They, too, are determined by way of an estimate, but the estimate is based on different elements:

(a) the mortality risk, where the benefit is payable upon death, or the survival risk, where the benefit is payable if the insured lives beyond the end of the period specified in the contract;

(b) the rate of interest used in discounting the value of the premiums remaining due from the insured and the value of the benefits from the insurer;

(c) the loading, covering the selling, collection and servicing costs.

37. The object of supervision in this field will be twofold: to see that the reserves are correctly calculated, and to make sure that they are adequately covered by the assets.

38. As concerns the calculation of technical reserves in the non-life branches, it has not yet been possible to devise a really scientific method for predicting with reasonable accuracy what the cost of claims will be. Usually, all that the supervisory authority can do is to find out whether the procedures employed by the concern in preceding years have, in the event, proved satisfactory. To this end, the insurance concern is required to keep more or less detailed accounts of the claims paid, giving the number of claims and the amounts. Such accounts will also permit comparison of the estimated cost of a claim made at the time it was recorded, and the actual cost as established in the subsequent settlement. This breakdown will reveal in particular what is the usual interval for the settlement of claims in the different categories, as also their frequency and their average magnitude. Furthermore, through a comparison of successive financial periods, and the results registered by different concerns in the same market, for the same types of risk, the supervisory authority will be in a position to discern the broad trends and to detect any irregularities in the estimates of a given concern for a given period.

39. This supervision on the basis of accounts may be supplemented by the spot-checking of files in accordance with sampling techniques. Examiners study a number of case-files to see whether the company in question has duly considered, in its evaluation of the claim, all the aspects of the case as recorded in the file, and has not systematically underestimated the amounts it will later have to pay.

40. In order to reduce the risk of underestimated technical reserves, the supervisory authority sometimes establishes a mandatory minimum estimate for claims. This practice is fairly general for the calculation of reserves for current risks. The minimum is, in this case, generally fixed as a certain percentage of the premiums collected during the financial period. The normal pattern of receipt of premiums over the year is taken into account in deciding what proportion of those premiums should be reserved for the purpose of covering administrative costs and possible claims subsequent to the financial year.

41. A similar method is sometimes adopted in calculating the reserve for outstanding claims: the reserve must equal a certain percentage of the premiums, which is fixed in the light of the ratio of total claims to total premiums usual in the insurance branch in question. Occasionally, concerns are even required to reserve for a specific number of years the total amount of the premiums received, minus only the amounts spent on administrative costs and the payment of claims.

42. It is obvious that such methods are an effective safeguard only if the premiums received by the concern are adequate. This consideration has inevitably led to legislation in some countries giving the supervisory authority power to fix minimum premiums. Actually, in the casualty branches, this power is little used because it is very difficult, for determining the minimum, to take into account all the very great variety of risks guaranteed in that market.

43. It is worth noting that the European countries members of the Organization for Economic Co-operation and Development (OECD) have recently undertaken studies to try to work out a method of forecasting the reserves needed for future claims.

44. The basic principle of this method is to project into the future the trends observed in both the frequency and the cost of claims during the latest financial years reported on. After specifying the kinds of information to be supplied by insurance concerns, the countries in question are going to try out the proposed method for a number of years so as to see if it can help achieve greater certitude in the verification of the estimates made by the concerns. Among the countries participating in this experiment there are many which believe that an extrapolation of past results can be of value only in those branches where the risks insured can be classified into homogeneous groups of sufficient size to permit the application of the law of large numbers. In any event, it is too early yet to pass judgement on the methods contemplated

45. As regards life insurance, the adequacy of the policy reserves depends on the values chosen for the three elements serving as the basis of calculation: mortality table, interest rate, and loading percentage. Here again, various methods of supervision are used. Some countries do no more than check whether the reserves set aside by each enterprise are in fact sufficient for the payment of the benefits provided for in the contracts. This check is carried out, for example, by comparing the actual mortality rate among the persons insured by the concern and the forecast in the table on which the calculation of the reserves was based. With respect to the interest rate, a check is made to find out if the actual income from the concern's investments is at least equal to the figure for the interest rate used in the calculation. For the loading percentage, a comparison is made between actual expenditures and the portion of the premium which was charged for the purpose.

46. Other countries make it mandatory to include certain components in calculating the policy reserves, or lay down minimum values. As in the case of casualty insurance, this sometimes leads the supervisory authority to establish minimum premiums.

47. Since the choice of technical elements entering into the calculation is very conservative, policy-holders often have to pay higher premiums than are strictly necessary for the payment of benefits. For this reason the fixing of minimum premiums is often accompanied by the proviso that the concern shall give policy-holders a share of any profits resulting from excess premiums.

48. Also in the sphere of life insurance, the OECD has set up a working group to try to reconcile the views of member States concerning the methods used in determining a satisfactory level for the policy reserves.

49. Naturally, both in life and in non-life insurance, the verification of the way in which the reserves are calculated must be accompanied by a scrutiny of the assets covering those reserves.

50. It is essential that the insurance concern should have the assets needed to meet its obligations. This brings up two main questions: the choice of assets, and their valuation.

51. Some countries have no special regulations on the subject: the concern has complete discretion in the management of its assets, within the general rules of commercial law (for example, Netherlands, Norway, Sweden, Switzerland, United Kingdom). Many others, however, consider it indispensable, for the protection of the interests of the insured and of third parties, to set limits to the concern's freedom of action.

52. As regards the choice of investments, these countries endeavour to ensure observance of the principles of congruity, safety, liquidity, diversity and income. This means that the assets must:

(a) be realizable in the currency in which the concern's obligation must be met, so as to avoid the difficulties that might arise in the event of a modification of the exchange rate between currencies;

(b) be invested in a manner which is not speculative and does not create any risk of non-realization (doubtful loans, for instance);

(c) be realizable in case of need, a condition which excludes, for example non-negotiable investments or those realizable only at the end of a lengthy period;

(d) be distributed amongst a sufficiently great variety of investments so as to diminish the danger of losses or wide fluctuations;

(e) and lastly, so far as possible, produce a regular income which will enable the concern to meet some of its running costs.

53. In order to ensure observance of these criteria, the regulations usually specify the various categories of investment acceptable for technical reserves, laying down for each category a certain limit expressed as a percentage of the whole. In France, for example, not more than 40 per cent of assets representing technical reserves may be invested in real estate, and not more than 10 per cent in a single property.

54. Another method is to require the concern, for certain types of investment, to secure the approval of the supervisory authority, normally beforehand. For example, in the Federal Republic of Germany, authorization must be obtained for the purchase of securities not traded on the stock exchange; in Italy, for loans; and in France, for real estate situated outside an urban commune.

55. The rules are also fairly strict as regards the valuation of investments as assets. For real estate the accepted value is usually the purchase price or the cost of construction, minus annual depreciation. However, a revaluation of assets is sometimes carried out either after expert appraisal or on the basis of coefficients fixed by the supervisory authority.

56. Securities quoted on the stock exchange may not be listed in the balance-sheet at a figure higher than the market price on the date of inventory, and most often the asset value may not be higher than the purchase price.

57. As a further measure of safety required by the rules governing the choice and valuation of investments, some countries also require that securities be placed with a depositary. This is a fairly frequent requirement for life insurance, in view of the usually long-term nature of the contracts.

58. The existence of technical reserves which are accurately calculated and accurately reflected in the concern's assets is unquestionably the main prerequisite for safeguarding the interests of the insured, but that alone is insufficient. However carefully the concern may have valued its reserves, and however diligently the authority may have performed its task of supervision, the fact remains that the precautions taken may be frustrated by events. Costs may exceed the amount which had been considered probable, for it is difficult to measure exactly the effects of the various factors of fluctuation, particularly as regards the total amount of claims.

59. Some fluctuations are the consequence of decisions by the concern which have the effect of altering the composition of its portfolio of contracts: expansion into new types of activity, changes in underwriting policy with respect to the selection of risks, changes in the terms of the contracts or in premiums, etc. Such decisions also include those which affect the running costs of the concern, such as changes in procedures for settling claims, etc. Other fluctuations may be caused by alterations

in the economic and social environment of the concern: in the case of automobile insurance, an increase in the speed or density of traffic; in that of fire insurance, changes in architectural ideas, construction methods, or materials, and so on.

60. In addition to all these fluctuations there are the normal deviations from the mean encountered in any statistical distribution.

61. What is more, in spite of all the precautions taken for their valuation, the assets of a concern may suffer sizeable depreciation.

62. For these many reasons, it is essential that the enterprise should have, over and above the assets needed to cover its debts and technical reserves, some extra guarantee in the form of uncommitted resources, which may be drawn upon in case of need to make up for any shortage of technical reserves.

63. This supplementary guarantee may consist in part of such fixed items as the concern's capital or what is often called its "establishment fund". This fixed amount, which is required upon the setting up of the enterprise to permit, amongst other things, the purchase of the equipment needed for it to function, can continue to serve as a guarantee during the growth of its operations. In addition, there is sometimes the requirement of an initial deposit. Studies made of the problem of the solvency of insurance concerns, as well as the practical experience of supervisory authorities, have shown that a fixed guarantee was not a sufficient defence against what the actuaries call "the risk of ruin". The potential divergence between the estimated and the real costs of an undertaking becomes greater in terms of absolute value as the volume of the risks guaranteed increases.

64. For this reason there is often a requirement of guarantees more or less proportionate to turnover or to the sum total of commitments. They may take the form of an adjustable deposit, a statutory reserve fund or a solvency margin. The latter is the form employed in the United Kingdom, where insurance companies must show a solvency margin of 20 per cent for annual receipts from premiums falling between £250,000 and £2,500,000, and 10 per cent for any amount exceeding £2,500,000. The six countries members of the European Economic Community, in their efforts to unify their insurance legislation, have chosen a similar system but using two criteria for calculation: the margin is calculated first on the basis of the premiums received during the latest reported financial year, and again on the basis of the average cost of claims against the concern over the last three financial years. The higher of the two results is the one applicable.

Special problems concerning the supervision of the activities of foreign insurance concerns.

65. What has been said up to now relates to action by supervisory authorities with respect to concerns which have their head office in the country. We must now examine how far these rules are applicable to concerns whose headquarters are in another country. This question is particularly important for those countries where there are no national insurance enterprises or where national concerns play only a very small part.

66. First, it will be found that there are two principal ways in which foreign concerns may operate. If the market in question is large enough and if insurance operations have been conducted there for some years, the insurance concern may deem it worthwhile to have a permanent, well-organized establishment in the country, in the form of a branch office. Such an office is run by qualified professional staff to whom the head office delegates authority to manage the business in that country. The administrative personnel at the branch office may then centralize the records, keep the accounts, and issue instructions to intermediaries who offer contracts to customers. The Government authorities can exercise direct supervision over the branch office and they have a responsible person to deal with, the manager of the office.

67. Such an establishment, entailing fairly high running costs, cannot pay for itself unless the total amount of premiums collected is quite large. Furthermore, it must find in the country personnel with adequate professional training. These conditions are not always satisfied. Thus, it frequently happens that the foreign concern prefers to run its business from its head office. In that case it simply recruits in the country, or sends there, a number of agents whose main job is to look for customers and whose small administrative duties are of a secondary character.

68. State supervision of insurance operations cannot be exercised in the same manner in the two cases.

69. Where there are branch offices, methods of supervision are faily similar to those already described. The branch office of a foreign concern must, of course, establish technical reserves represented by such assets as will ensure the proper performance of its contracts. The calculation of the technical reserves must take account of the characteristics of the local market, which means that separate accounts must be kept. It will be necessary, however, to refrain from drawing very firm conclusions from the results recorded, if the total volume of business is not sufficient to permit classifying the risks into homogeneous groups susceptible to the use of statistical methods. For, given a small portfolio of contracts, a few large claims will be enough to make the ratio of claims to premiums vary considerably from year to

year. In such circumstances, supervision of valuations made by the enterprise will depend primarily on a file by file examination, and the method of percentages will generally be found to be of no real value.

70. For the coverage of commitments, the rules already described should, in general, be followed. The principle of congruity leads naturally to the requirement that the technical reserves should be established locally, i.e. that they should be represented by assets situated in the country. Governments are, in any case, the more inclined to make such a requirement as they are anxious that foreign insurers who profit from the premiums paid by their nationals should contribute to the development of the national economy. However, due account must be taken of the question whether there are real opportunities for investment in the local market. In the developing countries the market does not always offer a sufficiently wide range of investments to satisfy the principles of diversity and liquidity, nor the criterion of yield. Consequently, the narrower the market, the more flexible must be the regulations concerning investments. It may be necessary to leave open the possibility of covering a certain proportion of the technical reserves by assets situated abroad, including negotiable securities in the home country of the concern. In order that operations should not be jeopardized, however, it will be necessary in that case to make sure that the proceeds from the liquidation of such cover investments situated abroad can be transferred, in case of need, to the country where the insurance obligation must be met.

71. As in the case of concerns which have their head office in the country, and for the same reasons, it is necessary that foreign concerns should possess guarantees of safety over and above their technical reserves. Should these guarantees also be situated in the country in which the foreign concern is operating? In a fairly large number of countries, the answer to this question has been, yes. It is felt that since the elements constituting financial guarantees - the nominal capital, the establishment fund or the legal reserve fund - are situated abroad, it is necessary to replace them, in the country of operation, by a deposit as security. The reason is that, should the technical reserves prove insufficient on some occasion, it would be difficult for claimants to exercise their rights against assets situated in the home country of the concern, for such an action would encounter the difficulties involved in starting *exequatur* proceedings. It must, however, be recognized that locally required guarantees are additional to those which the concern's home country has deemed sufficient for doing business. Accordingly, some countries have more liberal legislation which requires only that the concern should give proof of the existence, in its home country,

of guarantees equivalent to those which would be required of an enterprise having its head office in the country concerned. It would seem that an equitable solution to this problem would take account both of the volume of business done in the country and of the possibilities of co-operation existing between the authorities of that country and those of the concern's home country. If the amount of business done locally is fairly limited compared with the total volume of the concern's business, any deficiency of technical reserves will itself also be limited. It is likely that if the concern has sufficient free resources in its home country it will be possible to make up the deficiency quickly by a simple transfer of funds. There would thus appear to be no justification for requiring additional local guarantees if the supervisory authority in the home country is not opposed to such transfers, and especially if it has agreed to see to it that they are made promptly.

72. In the other circumstance mentioned, namely, where the concern has not established a branch office in the country, it will be virtually impossible for the country's supervisory authority to verify directly the adequacy of the technical reserves, since the accounts and claim files are kept at the concern's head office. In the absence of a branch office, to require that the relevant assets should be held locally also presents great difficulties. It would seem wiser, in such cases, to ask for a deposit, unless there is an agreement with the home country's authorities guaranteeing that transfers necessary for the performance of obligations will be effected without fail and without interference.

Supervision of reinsurance

73. All that has been stated up to now concerns direct insurance. We must not neglect another aspect of the activity, that of reinsurance.

74. The importance of reinsurance and its organization and techniques are studied separately at this seminar.[1/] Here we shall only concern ourselves with the problem of supervising reinsurance operations.

75. It must be said that, in general, the authorities have shown a certain reluctance to place reinsurance concerns under the same kind of supervision as enterprises engaged in direct insurance. A number of reasons can be given for this.

76. In the first place, assuming that the primary object of supervision is to safeguard the interests of the insured and of third parties, the need for regulating reinsurance

1/ See chapter V above.

operations is not so obvious. The reinsurer is not directly liable to the insured person; there is nothing legally binding between the latter and the reinsurer. The reinsurance agreement is one between the insurer and the reinsurer.

77. Secondly, whereas an insured person is in a position of inferiority with respect to the insurer, the same is not true of the insurer in relation to the reinsurer. The insurance concern has the expert knowledge necessary to enable it to discuss technical matters with the reinsurer on a footing of equality. It should presumably be able to choose its reinsurers with discrimination and conclude agreements only with those which are financially sound and of proven competence. Hence there is not thought to be any very serious danger that doubtful reinsurance concerns, whose failure might be fatal for the solvency of direct insurers, can compete in the reinsurance market.

78. Actually, however, the principal reason for the non-intervention of the authorities appears to lie in the difficulty of exercising effective supervision over reinsurance operations, owing to their very nature.

79. The object of reinsurance is to spread the impact of fluctuations on the incidence of claims in time and in space, and to ensure its widest possible dispersal. Spreading it in time means that the reinsurer will take over the excess claims suffered by the ceding company, if necessary for several successive years, until such time as an improvement in the earnings of the direct insurer allows him to compensate the reinsurer for sharing his losses by giving him a share of his profits. Spreading the impact in space requires the reinsurer to sign reinsurance agreements with ceding companies in a large number of countries in all parts of the world.

80. The need to share the risks leads the reinsurer to rectrocede the risks he has assumed to other reinsurers, who will successively retrocede them to still others.

81. The choices made by the reinsurer are based on his knowledge of the changes taking place in direct insurance conditions on the various markets in which the ceding companies operate. A supervisory authority cannot acquire sufficient information to enable it to exercise really effective supervision over the wisdom of the choices made. In addition, it is practically impossible for the supervisory authority to assess the solvency of the successive reinsurers, who, however, contribute greatly to the performance of the obligations assumed by the first reinsurer. What is more, since the reinsurer is obliged to settle claims quickly in many different currencies, it is generally agreed that he must be able to exercise great freedom of judgment in his choice of investments.

82. In these circumstances, genuine supervision is rarely exercised over reinsurance concerns. When the State does take action, it is usually to fix a minimum figure for

the financial guarantees, or to ensure that proper accounts are kept. Occasionally, however, the State institutes compulsory reinsurance or creates reinsurance monopolies. These special cases will be dealt with later.

Supervision in the case of cessation of business

83. To complete this broad outline of the principal modes of supervision of insurance operations, mention must also be made of the measures taken to protect the interests of insured persons and third parties, when a concern fails to conform to the regulations and it becomes necessary to end its operations.

84. We shall not dwell at length on this subject. Suffice it to say that in order to avoid the cancellation of unexpired contracts, the supervisory authority endeavours, in cases where the insurer is in difficulties, to secure the transfer of his portfolio of contracts and, if appropriate, of all the company's assets and liabilities, to another concern. In order to facilitate the operation, the regulations of some countries provide that approval of such a transfer by the supervisory authority may be cited to overrule legal objections by the insured.

85. If a transfer is not possible, it is necessary to proceed to the liquidation of the concern. This may be done under the supervision of the judicial authorities or by a purely administrative procedure. In the event of liquidation, the protection of the insured persons and others having claims under insurance contracts is usually effected by the entering of liens or similar safeguards so that the assets of the concern are reserved, as a matter of priority, for the settlement of insurance obligations.

Methods and organization of administrative supervision

86. For all the tasks - legal, technical and financial - falling to the supervisory authority, there are two forms of supervision:

- documentary supervision, consisting of examination of the concern's articles of association, the qualifications of its directors and intermediaries, the general terms of contracts, premiums, the accounts;

- on-the-spot inspection, which has two main purposes:

(a) to check the accuracy of information contained in the documentation relating to the accounts, for example as regards the existence and the valuation of assets, or the total amount of known debt;

(b) to check, file by file, or at least by a sampling of the files, the methods used by the concern to estimate needed technical reserves.

87. These tasks obviously require a high level of competence, both in the legal and in the economic sphere, on the part of the officials of the supervising administration. As on-the-spot inspection calls for special training, some countries have come to entrust this task to specialized staff. In France, for example, there are the regular administrative officers who are responsible mainly for the documentary supervision, and the examining commissioners, responsible for on-the-spot inspections. These two categories of staff must, of course, act in close co-operation. They are often associated in such general work as the drafting of regulations.

88. However, the efficacy of supervision does not depend only on the existence of a supervisory body with the necessary competence. As we have seen, it also requires that the offices of insurance concerns, and especially those of foreign companies operating in the country, should be so organized as to be able to provide all the requisite documentation regarding the insurance business it transacts in the country, and that they should be staffed with persons authorized to take the decisions called for by any observations the supervisory authority may have to make regarding the management of the business.

89. In addition to good organization at the level of the single concern it is useful if the industry as a whole is organized. When the administration is considering the terms of regulatory provisions, it often finds it a great advantage to have the opinion of those in the business. Consultation of this kind serves to bring out practical difficulties not noticed beforehand, and gives a better idea of the probable effects of the proposed rules. Industry associations may also contribute much to the effective application of the regulations by promoting a sort of self-discipline among its members, and by helping to eliminate insurers who do not obey the rules of good management.

90. To illustrate this account of insurance supervision methods we shall give a brief description of some of the types of administrative organization that may be found.

91. In a very general way it may be said that there are three main types of supervisory organization:

(a) First, there is the liberal type. An example of this is the British system, at least as it operated up to a few years ago. Although all British and foreign companies active in the United Kingdom were subject to supervision, they had to satisfy very few requirements. These included the publication of accounts and, in the case of casualty insurance, a minimum paid-up capital (£50,000) and a solvency margin (10 per cent) proportionate to the volume of net premiums after two years' operation. Concerns were entirely free to select their fields of activity and were not required to seek prior authorization but simply had to go through a certain form of registration. There were no rules regarding how and where assets were to be invested or how the technical reserves were to be calculated. Wide differences in the style of annual accounts were permitted, but they had to be examined by an independent accountant who was required to certify that they gave a clear and true picture of the company's financial situation. There were no rules, either, regarding insurance contracts or premiums.

92. The supervisory authority had the power to order an inspection at a company's head office, but it was rarely used.

93. In recent years, after the failure of a number of insurance concerns, the laws have been modified in the direction of a certain tightening of control. Insurance concerns must now, with some exceptions, seek prior authorization for each branch of insurance activity. A solvency margin must now be maintained from the first year of operation, and it has been raised to 20 per cent for receipts up to £2,500,000, the 10 per cent rate applying only to those above that figure. For life insurance companies no solvency margin is required, but the adequacy of the policy reserves must be certifie by an actuary every five years. The regulations concerning the form of accounts have been made more specific, and concerns are now required, amongst other things, to furnish statistical information broken down by branch and category of risk so as to allow a more careful verification of the amount of the technical reserves.

94. On-the-spot inspection, which formerly could only be carried out if the Board of Trade had serious grounds for questioning the solvency of an insurer, and then only after prior notice, may henceforth be used at any time.

95. In spite of these changes, British legislation on supervision still endeavours to preserve, as much as possible, the concern's freedom of action.

96. A similar system of supervision may be found in various countries which have been under British influence.

97. We could include in this category those systems where supervision is applied only to certain branches of insurance. This was the case with the Netherlands legislation, under which, up to quite recently, supervision applied only to life insurance (and it has only just now been extended to include non-life branches). It is also true of the Belgian legislation, which still applies only to life insurance, industrial accident insurance and insurance against the civil liability risks connected with the use of motor vehicles (although the extension of supervision to the other branches of insurance is likewise contemplated).

(b) At the other extreme are the forms of insurance supervision which are in the nature of State control.

98. This is the case with the supervisory organizations in the socialist countries of Eastern Europe. In these countries, insurance is the exclusive monopoly of a public institution. In keeping with the federative form of the States in question, this institution is represented by autonomous establishments in the different republics or regions. This is the case, for example, with the GOSSTRAKH in the Soviet Union, the State Insurance Institute in Czechoslovakia, and the State Insurance Establishment in Yugoslavia.

99. A modified form of this structure is found in a number of Latin American countries, where there is a monopoly of reinsurance (INDER in Argentina, IRB in Brazil).

100. When insurance is the monopoly of a public institution, State supervision, obviously, is exercised in a very direct manner over the entire operation.

(c) Between these two extreme forms of supervision there are those which might be called semi-liberal, and they are undoubtedly the most common. They leave room for private enterprise and allow insurance concerns freedom of action, but business must be conducted in accordance with fairly detailed regulations the object of which is not merely to penalize wrongful management and practices likely to prejudice the interests of the insured but above all to prevent them.

101. Naturally, certain differences of approach may be observed in this type of supervision. In some countries - France, for example - the primary objective of the law is to draw up a set of objective rules applicable to all companies. The activities of the authorities are thus delimited by the letter of the regulations, and no arbitrary action on their part is possible. Any measure falling outside the limits laid down in the laws and regulations must be in the form of a concerted action which associates the administration with the concern or with the industry as a whole through its professional organizations. This approach is also reflected in the fact that, apart from the withdrawal of its authorization to operate, the supervisory authority may not itself impose penalties; it has no judicial power.

102. In perhaps the largest group of countries, however, the law gives the supervisory authority a degree of discretionary power. This is the case in the Federal Republic of Germany and Switzerland, whose laws authorize the supervisory authority to take whatever decisions are necessary to ensure respect for the law and public policy, and

to prevent any difficulties that might jeopardize the interests of insured persons. These authorities may themselves order penalties, such as fines.

103. In Europe, such divergencies will probably soon diminish owing to the closer relations which are being established between the supervisory authorities of the countries members of the European Economic Community (EEC) and to the work being done by the OECD.

104. The six countries members of the EEC have for a number of years been engaged in joint studies aimed at unifying their insurance legislation to the full extent necessary for the smooth functioning of the Common Market. Directives are to be issued laying down co-ordinated rules relating to the conditions to be met by concerns of the six countries wishing to enter the insurance market and engage in business. One of the most important provisions is that establishing a common standard of solvency and entrusting the authority of the insurance concern's home country with the responsibility for verifying that the standard is adhered to. That authority will, however, have to work in close co-operation with the authorities of the other member countries, which will be responsible for checking, in particular, that the technical reserves relating to operations conducted in their territory are correctly estimated and represented by assets. This collaboration between the competent authorities of the six countries cannot but have appreciable repercussions on their methods of supervision, and will help gradually to eliminate differences, which for the most part are not basic.

105. In a broader framework, the OECD has drawn even more upon liberal principles in trying to eliminate the obstacles to free competition resulting from the world wars, which drove every country into a certain degree of economic autarchy. In the insurance sector, however, it has become apparent that real progress in the liberation of operations depends on reducing differences in legislation. It is probable, therefore, that the efforts towards harmonization being made by the six countries members of the EEC will inspire a similar movement in the OECD.

<u>Action of the State on the insurance market</u>

106. Having examined the different aspects of the supervision of insurance concerns and the prerequisites for its effectiveness, we must now consider another form of State action, one which is of a more typically economic nature. This is the action taken to promote the development of the insurance market and to improve its organization and operation.

107. When there is no national market or when it is still not very active, there might be a temptation to try to strengthen it by making access to it more difficult, or even forbidden, for foreign concerns. The creation of a national monopoly of insurance or the requirement of extremely high financial guarantees, from which national concerns are exempt, are manifestations of this protectionist tendency. Draconian measures of this kind are not without their dangers. In the first place, they can only be applied if it is possible to establish local organizations capable of taking over from the foreign insurance concerns. Sufficient capital to ensure the solvency of such organizations must be found, and there must be locally available qualified personnel already trained to operate an insurance concern. In addition, compensation for risks is only possible in such organizations if the market is sufficiently broad and varied. These conditions rarely exist in a market in process of development. Even if the market has already reached a certain size, the need for transactions with foreign markets in order to obtain a better distribution of risks, will certainly be felt. That is why, in countries where they exist, institutions enjoying a monopoly in the national territory tend to look for reinsurance on the international market. Another danger in such solutions is the perpetuation of unrealistic conditions of guarantee and of excessive premiums and operating costs, owing to the absence of active competition. The services provided to the insured are liable to be too expensive and somewhat off the mark in meeting their insurance needs.

108. As another example of restrictive measures, mention may also be made of the prohibition of nationals of a country from signing an insurance contract directly with the head office of a foreign concern. A provision of this kind may, however, not be protectionist if its object is to ensure the effectiveness of supervision by requiring the foreign insurer to have an establishment in the country. Requiring a foreign insurer to establish an office in the country is justified as a means of protecting the interests of the insured persons, provided it is not accompanied by restrictions whose real effect is to close the market.

109. These negative measures may be compared with those which make a constructive contribution to the development of a national insurance industry. Some of these will be directed to making the public more conscious of the benefits of insurance. An example is the promotion of mutual benefit societies, both of the territorial and of the occupational type. The State may also be active in encouraging the public to seek

coverage against certain special risks. In France, for example, subsidies amounting to a certain percentage of the premiums are granted to farmers who take out insurance against hail. A tax rebate is accorded persons who sign life insurance contracts, 50 per cent of the amount of the premiums paid being deductible from taxable income. Sometimes, the State itself brings about the creation of public entities backed by its guarantee, which offer to the public contracts on better terms than those available from other insurance concerns. In France, for example, there is the National Providence Fund, which was originally established in order to put life insurance within the reach of persons of limited means.

110. Among such measures we must group together those which make certain kinds of insurance compulsory. While their primary objective is often to safeguard the interests of third-party victims of accidents, as in the case of civil liability insurance for automobile or hunting accidents, such measures also have the effect of making insurance more stable and consequently less costly, by creating a wider base, which permits better indemnities.

111. State action can also contribute to the development of a national insurance industry through an improved organization of the market. National concerns cannot hold their own against foreign companies unless they remain competitive. It is therefore necessary to see to it that they are sufficiently productive. For this, it is essential that staff and associated agencies should be competent.

112. There is therefore much to be gained from organizing or encouraging the training of skilled personnel. If it is not possible to set up specialized vocational schools in the country, the training can be given by means of practical courses of work in insurance concerns, either in the country itself or abroad. More directly, the supervisory authorities will concentrate on watching the level of management costs and of premiums, which should be adequate but not excessive. In this sphere, regulatory provisions are the exception. Some examples can, nevertheless, be cited: in France, as regards automobile insurance, the authority has set a ceiling on operating charges, which, as from 1 January 1970, must not exceed 28 per cent of the premiums collected; it has also set maximum rates for the commissions paid to intermediaries. As regards premiums, a fairly large number of cases could be quoted of maximum rates for motorists' civil liability insurance.

113. It should, however, be stressed that regulations of this kind are a risky matter. The freezing of premiums must not be allowed to upset the technical equilibrium of insurance operations, lest concerns should be tempted to reduce their technical reserves, thereby jeopardizing the interests of the insured and of third parties.

114. Where a market is already well developed, the goal of greater productivity may lead the authorities to encourage insurance concerns to amalgamate. Mergers or portfolio transfers may be facilitated by appropriate tax measures. Some countries have gone even further by fixing a minimum figure for receipts, so as to compel concerns with too small a portfolio to withdraw from the market. If the market is too small, however, such measures are likely to defeat their purpose, for a reduction in the number of concerns may result in a stagnation or even a decline in the overall volume of business.

115. From what has been stated, it may be seen that the help given by the State to the insurance industry is rarely of a financial character. The only cases in which it does take this form are those where the premiums of persons taking out certain types of insurance are subsidized, and where the State contributes to the capital of an insurance concern. This is usually the case when a public or semi-public institution is granted a monopoly, and it may also occur when such institutions are in competition with private companies. This is the situation in France as regards the nationalized insurance enterprises, in which the States has been the sole shareholder since 1946.

116. On the other hand, insurance firms make a regular contribution to the State's budget, a contribution which takes two main forms, subscriptions to loans and the payment of taxes.

117. Insurance acts as an accumulator of savings. This is true not only for life insurance, where the act of saving is obvious when the policy provides for the payment at term of a lump sum or a regular income, but also for non-life insurance, since a part of the premium goes towards the formation of the technical reserves. The funds thus collected are invested by the insurer in various ways. Among these, loans floated by the State or by its political subdivisions are an important sector. Bonds are a particularly suitable investment for life insurance, which involves long-term obligations and calls for an investment producing an assured regular income. They also have their place as assets representing technical reserves in non-life insurance, for

under normal circumstances the level of these reserves remains relatively stable. Furthermore, where there is an organized financial market, bonds are easily negotiable when the concern is obliged to liquidate some of its investments. Usually, therefore, there is no limit on the amount of securities issued by the State that may be used for the technical reserves. Often enough concerns are even forced, indirectly, to invest part of their technical reserves in such securities, because the total volume of other investments is limited to a certain percentage of those reserves.

118. The tax contribution of insurance concerns is also far from negligible. There are two ways of taxing insurance operations: the tax may be charged directly to the policy-holders, in which case the insurer acts as a tax collector, or it may be charged to the insurer himself.

119. In the former case, the levy on the policy-holder is usually calculated as a percentage of the amount of the premium, and takes the form either of a regular tax or of a proportional stamp duty. This is the case, for example, in almost all the countries members of the OECD. Some apply a single rate to all branches of insurance (Federal Republic of Germany, Ireland, and Turkey, except for life insurance). Others have established different rates depending on the type of insurance. The highest rates are usually found in fire insurance (30 per cent and - for agricultural risks - 13 per cent in France; 8 to 15 per cent in Italy; 13 per cent in Greece; 11 per cent in Austria; 6.5 per cent in Spain; 5 per cent in Morocco). The lowest rates are usually those for life insurance (0.5 per cent in Switzerland; 1.5 per cent in Italy; 2 per cent in Greece; 2.1 per cent in Portugal; 2.2 per cent in Turkey). Taxes are sometimes fixed as a percentage of the face amount of the policy. This occurs, for example, with hail insurance (Austria, Federal Republic of Germany, Luxembourg, Netherlands), transport insurance (India, Netherlands), fire insurance (Switzerland) and certain forms of life insurance (life annuities in Italy).

120. In other cases, taxes are levied in the form of a stamp duty, either fixed (India, for fire insurance) or in proportion to the compensation paid (Greece, for life and fire insurance).

121. The principle of taxation is not universal, however. Some countries - Denmark, Ireland, Norway, Sweden, United Kingdom - do not collect any special tax from policy-holders. Others allow exemptions for certain categories: life insurance (Federal Republic of Germany, Austria - when the face value does not exceed a certain sum,

Switzerland - group insurance); insurance in an agricultural mutual society (France); insurance against agricultural risks, such as livestock insurance (Federal Republic of Germany); hail insurance (Switzerland); sickness insurance (Switzerland); industrial accident insurance (France); and export credit insurance (Italy).

122. It should be noted also that reinsurance operations are usually exempt from taxation.

123. When the insurance sector is very active, the tax yield can reach considerable proportions. In France, in 1968, insurance taxes brought the State 1,630 million francs. This represented 3 per cent of total turnover taxes and 1.4 per cent of total fiscal income.

124. However, taxation rates must not be raised too high, for if it is the taking out of insurance will be discouraged. In particular, enterprises having very large risks to cover may be tempted to become their own insurers.

125. What is more, this taxation as generally practised is open to criticism from the economic point of view. In the matter of life insurance, for example, it seems odd to tax savings at the time they are being accumulated, but that is what happens when the tax is based on the premium paid or on the face amount.

126. Insurance concerns provide the State with a further source of revenue - the revenue produced by the application to these concerns of the general taxes on income and wealth (taxes on profits, capital gains, transfer of assets, etc.). This contribution is much smaller, for the actual surpluses of insurance concerns are not very large. In 1965, in France, out of the total of 20,000 million francs profit earned by all enterprises subject to the company tax, insurance companies accounted for only 44 million. In this matter, it is sometimes difficult to reconcile the views of tax officials with those of the supervisory authority. The supervisory authority, concerned for the solvency of insurance enterprises, naturally hopes that the formation of adequate technical reserves and of supplementary financial guarantees needed to deal with the "risk of ruin", will not be penalized by the tax collector. Tax authorities, however, are inclined to view any increase in technical reserves or in supplementary financial guarantees as having come out of profits, on which taxes should be levied for the benefit of the State's budget.

127. It would obviously be desirable that funds set aside by the insurer, insofar as they constitute a necessary guarantee for the proper performance of the company's obligations, whether they go into the technical reserves themselves or into the solvency margin necessary to cope with unforeseen fluctuations, should be exempt from taxes, which should be levied only on the surplus. The difficulty arises from the absence of exact criteria for estimating the necessary and suitable magnitude of the technical reserves and supplementary financial guarantees. It is hoped that the studies at present under way in various organizations such as the European Economic Community and the OECD will help supply a satisfactory solution to this problem.

Some ways of facilitating co-operation and technical assistance between developed and developing countries

128. We have been considering the relationship between the State and the insurance industry in broad terms but mainly on the basis of documentation from countries with a market economy. The situation in the developing countries is dealt with by another speaker who undoubtedly has fuller documentation on this aspect of the subject.[1/] It might be of interest, however, to say something here about a novel experiment in co-operation in the field of the supervision of insurance, between France and a number of French-speaking African countries.

129. In 1962 twelve African States concluded with the French Republic an "Agreement on co-operation in the sphere of supervision of insurance enterprises and operations". Since that date another African State has registered its accession to the Agreement.

130. As stated in its preamble, the goal of the signatory countries was to "encourage the formation in their territories of a broader market capable of offering a satisfactory balance from the technical, economic and financial points of view".

131. The following are the means by which this objective is to be attained.

(i) Harmonization of laws and regulations concerning insurance organizations and operations

132. In its Chapter I the Agreement sets forth a number of common rules.

133. These are mainly rules concerning prior authorization, withdrawal of such authorization, transfer of portfolios and keeping of accounts relating to operations.

1/ see paras. 154 *et seq* below.

134. These common rules are accompanied by model texts of laws and regulations, and these have been incorporated, with slight variations, in the legislation of each of the signatory countries.

135. Thus, in the community that has been formed, the institutional framework is virtually uniform.

(ii) Establishment of a system of uniform overall financial supervision for all operations conducted in the territories of signatory States

136. The Agreement specifies that overall financial supervision shall be exercised by the competent authority of that one of the signatory States in which the enterprise has its head office, if the enterprise is from one of the member countries, or its principal branch office, if the enterprise has its head office in some third country.

137. This provision is designed, not to restrict the role of individual member States, each of which remains competent to check whether its laws are being obeyed, but to entrust to that State which is in the best position to examine the enterprise's total activity in all of the member countries, the task of watching its financial situation in the common interest.

(iii) Creation of a Conference of Supervisory Authorities with a permanent secretariat, to facilitate the collaboration of the various supervisory authorities.

138. This Conference, which meets once a year, has a very broad mandate. Its first task is to ensure observance of the basic principles of the Agreement, and to this end it may address advisory opinions or observations to member States.

139. It must be consulted whenever the authorities of a signatory State contemplate changes in the laws and regulations affecting insurance activities.

140. It also has tasks in the sphere of information and investigation. It supplies data needed for the exercise of supervision and may initiate studies of common interest and offer suggestions for improving the protection of insured persons, the conditions for engaging in insurance activities, and prevention. Its most important task, however, is to secure real co-operation between the administrative services of the member States in their work of supervision.

141. This applies, for example, in the matter of prior authorization. The Agreement provides that if authorization is sought so as to enable an insurance organization to do business in the territory of at least four signatory States, the technical examination of the file submitted by the applicant organization shall be carried out, in the common

interest, by the competent authorities of the signatory State in which the organization has its head office. The results of the examination are submitted to the Conference of Supervisory Authorities, which expresses a technical opinion, with reasons. If the opinion is unfavourable, the application for authorization may not be granted.

142. Similarly, the permanent secretariat periodically prepares a technical report on the status of enterprises authorized to operate in not less than four of the member countries, and sends it to the national authorities. The latter are entitled to make observations thereon when the Conference meets. The Conference may also be convened if the position of an enterprise seems to be imperilled, so that all requisite measures may be taken to protect its policy-holders.

143. It may be noted that the member countries have adopted a special system for apportioning the business done in their territories.

144. It has been decided to apportion it, not on the basis of the place of signature of the contract, but on that of "allocation criteria" which vary according to the nature of the risks insured.

145. There are three allocation criteria:

- the place where the risk is situated
- the place where the property is situated or registered
- the concept of residence.

146. It is on the basis of the apportionments made in this way that the taxes on insurance contracts are collected by the various countries and that the amount of technical reserves to be invested in each member State is determined.

147. The purpose of this measure was to prevent the inequalities that might result from the unwarranted signing of contracts outside the member State in which the insured risk is situated.

148. Since it is still of recent origin, this effort at co-operation has perhaps not yet produced all the results that may be expected of it, but it can already be said that this experiment has been constructive, and might well be extended.

149. It can be regarded as a form of technical assistance, for it is France which is the country mainly responsible for the overall supervision of solvency, inasmuch as most of the enterprises operating in the French-speaking African States have their head offices in France. Furthermore, it is experts of the French supervisory authority who assist in carrying out the investigations called for by the Conference of Supervisory Authorities.

150. In addition, the joint discussion of problems connected with the supervision of insurance enterprises results in a fruitful exchange of experiences, which undoubtedly complements the training of the officials of the various countries concerned.

151. Other forms of technical assistance, both national and international, are dealt with in a report by the secretariat of UNCTAD. There is no need, therefore, for me to dwell on the subject. I shall merely point out that the French Government has on various occasions given practical training courses for personnel of the supervisory services of developing countries. One of them, designed for future chiefs of supervisory authorities in French-speaking countries, started with a series of general lectures given by officials of the French Directorate of Insurance and by teachers of the National School of Insurance. The lectures dealt with general principles of law, insurance regulations, accounting, and administrative, economic and financial problems in the field of insurance. In the second part of the course, the trainees were assigned to work in the Directorate of Insurance. The course ended with a period of training in some of the largest of the French insurance companies. Other courses, for staff at a lower level, concentrated more on specific training in the various tasks carried out by a supervisory authority.

152. A special body, ASATOM (Association for the training and reception of overseas technicians), takes care of the material needs of the trainees, with the help of fellowships granted by the French Government. A parallel body, ASTFF (Association for the training of technicians in France), looks after foreign trainees who are not nationals of the French-speaking countries of Africa or Madagascar.

153. Much more time than is available for one talk would be necessary to enable us to go into all aspects of the relations between the State and the insurance industry. However, we hope that we have been able to bring out clearly enough the main lines along which Governments may act in the economic sector under consideration. Certain features are common to all countries, especially as regards the establishment of an institutional framework and the State's exercise of its function of supervision in the interests of the insured persons and of third parties. Differences become more noticeable with respect to the methods by which and the extent to which the State takes economic action. There is no doubt that such action is of a contingent nature and depends largely on the social and political context. While the State can play an important part in creating conditions which facilitate the smooth development of insurance, it

may also make the mistake of neglecting some of its basic requirements, such as the need for the most generous possible compensation of risks, or it may take too narrow a view, for instance by regarding the insurance enterprise solely as an investment concern or as the occasioner of a movement of capital. There should be no misunderstanding about what is the principal function of insurance: it is to create security through the sharing of risks on the broadest scale possible. It can only fulfill this function if the natural technical laws governing its operations are not perturbed through undue intervention by the State.

B. Background paper by Mr. Ananthachari Rajagopalan (India)

154. The relationship in developing countries between the State and the insurance industry, or in other words, the role of the State in those countries in regard to this sector of industry, has over the years undergone important changes. The first was the abandonment of an attitude of *laissez faire* in favour of regulation of the industry in the interests of the policyholders. The second and more recent one is the recognition that the State has a part to play in founding and fostering a strong indigenous insurance market.

155. I shall endeavour to outline the changes that have occurred in India in this regard over the years. Conditions in India are, and have been, somewhat different from those obtaining in other developing countries. Nevertheless the experience in India will, I hope, be of interest to other developing countries.

156. Though general insurance is older and also came to India earlier than life insurance, Indian general insurance companies came to be established much later than life assurance companies. In fact, the first Indian general insurance company was not established till 1907, long after several Indian life assurance companies had come into existence and were flourishing. It took another decade before other Indian companies transacting general insurance came to be established. The reasons for this tardy development are not far to seek. Life insurance required only a modest initial capital - once the business takes root even this modest capital becomes functionless - and depended for its business on the ordinary citizen. General insurance, on the other hand, required a much bigger capital and what, was even more difficult, had to look for its business to commerce and industry which were mostly in foreign hands.

157. The first insurance legislation was the enactment of the Indian Life Assurance Companies Act, 1912. The purpose was to regulate the working of only Indian

companies and since the Indian companies that had come into existence were mostly "life companies, the Act did not apply to general insurance. Companies which were operating in Britain and were thus complying with the provisions of that country's Assurance Companies Act, 1909, were exempt from its scope on the ground that they were effectively supervised by Britain; they were not required even to furnish statistics of business done.

158. The Assurance Companies Act, 1909, on which the Indian Act was modelled, was based on the principle of "freedom with publicity". While this principle had undoubtedly worked well in Britain it was completely unsuitable to Indian conditions. Literacy was low, and since there were practically no financial press, even among the literate very few could tell a good company from a bad one.

159. The Government had practically no powers under the Act. Since the minimum deposit was only Rs.25,000 a large number of companies came to be established, a few under sound enlightened management but the rest under managements which were either inefficient or worse. The inevitable crop of failures followed.

160. Some of the companies transacted business on what is known as the "dividing principle"; the premium rates were uniform and the amounts collected each year, less expenses, were divided equally among the claims arising in that year. This, of course, was against all sound principles of actuarial science and such companies met the inevitable end; but not before causing harm to thousands of policyholders. Lacking necessary powers, Government was an idle spectator.

161. Inevitably, a demand arose for more effective legislation. The Government waited to see what shape insuranc legislation in the United Kingdom (based on the Clauson Committee's Report) took. When it became clear that the United Kingdom had no intention of embarking on fresh insurance legislation, the Indian Government went ahead, and the Insurance Act, 1938 was enacted.

162. This Act leaned towards the American practice of detailed State control moving away from the principle of "freedom with publicity". Deposit requirements were increased to prevent mushroom growth and the Controller of Insurance was clothed with somewhat wider powers than he had under the 1912 Act. The Act also contained special provision to protect policyholders from one-sided contracts.

163. Contrary to the expectations of the framers of this legislation the powers conferred by this Act proved to be totally inadequate, particularly in coping with certain malpractices that developed during the forties. Attracted by their huge life assurance funds, unscrupulous financiers paid exorbitant prices for the controlling

interest in the shares of life insurance companies with the intention, after gaining control, of recouping their "investment" by defrauding the companies. A high-powered committee known as the "Sir Cowasjee Jehangir Committee" was appointed to "enquire into some trends and undesirable features in the management of insurance companies in India and to recommend measures which should be taken to check these evils". Further legislation was enacted on the lines of their recommendations and the opportunity was taken to tighten up the Act in other respects as well. But unfortunately even these new measures proved inadequate and the life insurance industry was rocked by a few big scandals. Government acted with vigour, but the funds lost could not be wholly retrieved.

164. In the meantime, the demand for nationalization of life insurance on the ground that such a step was essential for a more effective mobilization of the people's savings, a demand which had been voiced as early as 1938, had gathered momentum. The Government came to the conclusion that with a second Plan about to be initiated, involving an accelerated rate of investment and development, nationalization of life insurance had become, more or less, imperative. Life insurance business was nationalized in 1956, and the Life Insurance Corporation of India was established to transact life insurance business as a monopoly. General insurance was left alone.

165. With the nationalization of life insurance, the Government of India became, for the first time, owner of an insurance institution. What should be the relationship between Government as the regulating authority and the Government-owned Corporation? The Life Insurance Corporation Act, 1956, itself provided the answer. That Act laid down that the Corporation would be an autonomous body and should be run on business principles. Government would appoint the Board and also provide guidance on matters of policy, particularly on the investment policy but would not interfere in the day-to-day management. The Government could give directions to the Corporation but such directions should be confined to matters involving the public interest and should be in writing (these directions are mentioned in the annual reports of the Corporation). To underline the approach that it should be run on business principles, the Insurance Act, which applied to the erstwhile life insurance companies, was made applicable to the Corporation and the Corporation is required to submit returns to the Controller of Insurance.

166. In 1964, the Corporation commenced transacting general insurance business in competition with private insurers. To help the Corporation, Government has directed that all general insurance business within its (Government's) control should be placed with the Corporation. The Corporation enjoys no other privileges and is subject to all the regulatory powers of the Controller.

167. A recent, and an important development in the Insurance field is the enactment of the Insurance (Amendment) Act, 1968 which was brought into force in June this year. Technically, it is an amendment of the Insurance Act, 1938, but in volume and scope it is an Act by itself. The objectives sought to be achieved by this legislation, are, "that the premium rates should be fair, that there should be complete security to policyholders, that insurance companies should not be owned by individuals and their funds utilized to further private interests and lastly that the industry should function on sound and health lines and free from malpractices". To achieve these objectives the Act has introduced for the first time the principle of a solvency margin. This requirement and the one requiring increased deposits would ensure that companies build up strength and not fritter away resources. On the regulatory side the Controller has been given wide powers, including powers of inspection, power to give directions and to remove directors and principal officers. Lastly the Controller, as the Chairman of the Tariff Advisory Committee (rate making body), has ample powers to ensure that the rates are fair to the consumer as a whole and fair inter-se.

168. The establishment in 1955 of the India Reinsurance Corporation was the first promotional activity of the Government in the field of general insurance. The India Reinsurance Corporation was floated at the instance of Government with a view to reducing the foreign exchange drain which used to occur year after year, on account of reinsurance abroad of Indian general insurance business. Its shares were distributed among the insurance companies, both Indian and foreign, transacting general insurance business in the country, but the Government itself did not subscribe to any part of its share capital. In 1961, the "Indian Guarantee", a wholly owned subsidiary of the Life Insurance Corporation, entered the reinsurance field. To give these reinsurance companies a good base of operations, the Insurance Act was amended to provide for compulsory cession of 20 per cent (less for some classes) of every risk written in the country to be shared equally between them. Both these roinsurers have been instrumental in reducing the foreign exchange out-go arising on account of reinsurance.

169. Experience in India has amply demonstrated the need for a technically equipped regulating authority in developing countries. The need for such an authority is not affected even if the whole or a part of the industry is nationalized. On the contrary, the need may be greater as the Government will require competent independent advice as to how the institutions which it owns are faring. It is relevant here to mention that a high-level committee which recently examined the working of the Life Insurance Corporation has recommended that the Government Department which deals with insurance should be placed under an Actuary having the rank of a Joint Secretary to Government.

170. What type of supervision over insurers is best suited to a developing country? Experience in India over several decades has demonstrated that developing countries need to have even a stricter supervision over the activities of insurers than what developed countries need. The insurance industry in a country like the United Kingdom can thrive under conditions of "freedom with publicity", but for developing countries detailed State control is better suited.

171. While the regulatory officer (whether designated controller or otherwise) should have ample powers, mandatory rules and regulations should be kept to the minimum. Detailed laws and regulations may be available for countries which have a highly developed insurance industry, but in the case of developing countries any rigidity would hamper the growth of indigenous companies and run counter to recommendation A.IV.23 of the United Nations Conference on Trade and Development. An infant insurance industry will need time and help to grow, and while the officer should ensure that the companies are well managed and do not fritter away their resources, they get time to build up strength. The insurers, particularly indigenous insurers, should be encouraged to look to him more as a friend, philosopher and guide than as a mere keeper of law and order. To inspire such an attitude the officer must have, in addition to technical competence of a high order, vision and judgment and, above all, sympathy with the aspirations of the local industry.

C. Summary of discussion

172. The participants discussed at length the various forms of relations between the State and the insurance industry and, although diverging opinions were expressed about the most adequate form and degree of State intervention, there was a certain consensus that in developing countries the State must play an important and

constructive role in the establishment and strengthening of the national insurance market. Owing to the diversity of economic and social conditions in developing countries, practical solutions to the problems of relations between the State and the insurance industry should be sought on the basis of actual conditions, by taking into consideration the level of development achieved and the general economic and social structure of the developing country concerned.

173. The role of insurance legislation and supervision in achieving the main objectives in the field of insurance was emphasized by many speakers. It was stated that in most developed market economy countries insurance legislation and supervision were highly sophisticated and, in general, far reaching and strict. In recent years, there had been a marked shift towards an even stricter supervision and a more active intervention by the State in the insurance and reinsurance business practically everywhere. For instance, the enactment of the new Insurance Act 1967 in the United Kingdom followed the bankruptcy of a number of insurance companies.

174. As regards the legislative framework of the insurance industry in developing countries, many participants from these countries stated that the legislation was often obsolete or not adapted to local conditions. In many cases the legislation had been introduced in the period before independence, in most cases it had been borrowed largely from the legislation of other countries, mainly the former metropolitan countries, without any effort to adapt it to the changed conditions. Practically all the participants from developing countries agreed that the first step towards the creation of a national insurance market in developing countries should be the setting up of an adequate legislative framework for insurance activity.

175. The second step of equal importance for developing countries was, as all the participants emphasized, to establish effective supervisory and control services which could implement the statutory provisions governing the insurance industry and supervise its activities, mitigating conflicting and undesirable practices and encouraging the establishment or expansion of national markets. In the performance of their functions the supervisory authorities should possess the initiative to make recommendations for the amendment of ineffective laws and regulations so that they could ensure a flexible system of relations between the State and the insurance industry. Many participants from developing countries referred to difficulties in the establishment of effective supervisory services in their country. They explained that

some of these difficulties arose from lack of experience and from the insufficiency of qualified personnel, others from the lack of statistical information and regular financial returns which made it impossible for the supervisory services to discharge their duties efficiently.

176. Some participants from developing countries referred to the problems posed by the excessive proliferation of insurance institutions in many developing countries. They considered that, in view of the very limited size of the insurance markets in many developing countries, this proliferation of insurance institutions and the resulting very small scale of their operations presented a considerable threat to the market and its stability. This was also one of the reasons for a very slow accumulation of insurance funds in the developing countries which, in turn, hindered the development of a stronger retention capacity of the insurance markets in such countries. In order to overcome these difficulties, developing countries had resorted to various measures ranging from taking into consideration, while granting permission to start a new company, various economic factors such as the size of the market and its prospects of development, the number of institutions already operating and their origin and the like, to banning completely all new registrations of insurance institutions.

177. In this connexion, some participants from developing countries suggested that, for this type of decision-making, the insurance supervisory authorities should prepare detailed studies of their markets. These participants urged also that the problems of the optimal size of an insurance institution deserved further study and analysis. Several other participants from developing countries, speaking from their own experience, suggested that it might be in the interests of the national markets in developing countries if the number of institutions was not allowed to be too large, this expression to be interpreted in the light of the size of the markets. The opinion was expressed that in certain cases limiting the number of insurance institutions to just a few might be considered as beneficial, for a limitation of the number of institutions led to economies of scale as larger institutions were generally able to reduce costs and to increase efficiency, for example by the use of modern business methods and of costly electronic equipment.

178. Referring to the specific problems of supervision of agencies and branches of foreign insurance and reinsurance concerns, raised by the author of the first of the two discussion papers, several participants from developing countries mentioned a

number of additional problems confronting the supervisory authorities of developing countries when dealing with foreign concerns. These additional problems were: (a) business and statistical records were not sufficient for supervision purposes; (b) complications arose from the relations of agencies and branches with their head offices in respect of administrative, management and reinsurance expenses; (c) the verification of settlements of claims was especially difficult in the case of agencies which often did not deal with the settlement of claims at all; (d) funds were not held in the country and the working balances might not be sufficient for the payment of claims and to cover other liabilities; (e) problems arose from the assessment of taxes; (f) there were differences between the statutory requirements in the country where the head office was situated and those in the country where the institution operated; and (g) there was a certain reluctance on the part of foreign companies to submit to supervision, especially if they had operated previously without any control in a developing country, even though they were subject to control in their home country.

179. Some practical solutions to these specific problems were suggested by the participants, varying from the prohibition of the operation of foreign companies' agencies and branches, which could only be registered in the form of limited liability companies under the national laws, to requesting such agencies and branches to operate on a full and autonomous accounting basis. With respect to relations between the agencies and branches and their head offices, several participants reported that in their countries limitations had been introduced concerning the amount of the head office expenses that might be charged to the agency or branch account. Reinsurance relations between the branch in a developing country and the head office outside should be specially examined, as they were frequently used as a convenient form of withdrawing funds from the country.

Chapter VII

INSURANCE INSTITUTIONS AND ORGANIZATIONAL ASPECTS

A. Background paper by Mr. Jorge Bande (Chile)

Insurance and reinsurance in the developing countries

1. Our object, on the basis of a knowledge of the situation in the developing countries, is to specify the most typical forms of institutional organization for insurance and reinsurance, and the political and economic measures most appropriate for ensuring that a national insurance market can achieve an adequate degree of development and solidity, and exert a favourable effect on the national economy as a whole.

2. It is advisable, in the first place, to elucidate the difference between insurance markets in the developing countries and in the developed countries; for only where that difference is known can valid conclusions be drawn regarding the optimum institutional organization in each case.

3. The Insurance Committee of the Organisation for Economic Co-operation and Development (OECD) set up a group of experts to examine the problems of insurance and reinsurance in the developing countries. Its report was submitted in 1965, the line taken being that the developing countries should not press so urgently for independence in respect of insurance and reinsurance but should rather proceed slowly and hand in hand with institutions of the same nature in the industrialized countries.

4. The report catalogues the negative characteristics of insurance and reinsurance in the developing countries; and against each of these we have placed, by way of comment, the balancing factors which a well-conceived policy of insurance and reinsurance could engender.

Negative characteristics	Balancing factors
(a) Relatively small market within the country's confines, with greater possibilities of unbalanced portfolios.	(a) The market can be enlarged and strengthened and the necessary spread and balance of portfolios achieved by means of reinsurance contracts duly ceded and accepted on a reciprocal basis.

	Negative characteristics		Balancing factors
(b)	Higher overheads for the relatively small number of operations, and hence higher rates than in the industrialized countries.	(b)	Not necessarily, for in general they are offset by the lower percentage of accidents, due to the lower degree of industrial development and the greater degree of national retention of these good portfolios.
(c)	Less flexibility because of lack of adequate information about new branches and procedures.	(c)	This drawback is completely eliminated by the rapid and efficient quotation and information service of the professional reinsurers.
(d)	Shortage of specialists and technicians.	(d)	There is no shortage, and even if there were, it would be offset by the possibility of training a limited number of the country's technicians abroad, by means of courses organized in the more developed countries for the less developed countries of the region, and by the employment of university-trained staff even if they are not specialists.
(e)	Less expert and comprehensive State supervision.	(e)	It is not certain that this is generally the case, and where it is, it is offset by the greater ease of supervising the concerns as their operations are confined to the national territory and their financial position and that of the groups directing them are more fully known.

Negative characteristics	Balancing factors
(f) Less opportunity for investments, and liability of the latter to undergo fluctuations in value.	(f) Relatively true in countries at a very early stage of development (African countries), but even there the case arises in a limited form, for the possibility also exists of investment in real estate, mortgages, fixed-term deposits, loans on policie and bonds issued under State guarante and by national and international development organizations.
(g) Insufficient capital for the formation of strong national undertakings.	(g) Insurance concerns do not need a large volume of capital, their solvency being safeguarded by proper supervision and an appropriate reinsurance policy.
(h) Weak economies marked by inflation hardly favour the development of life insurance.	(h) This disadvantage is completely eliminated by readjustable plans based on risk premiums.

5. It can be seen, from the foregoing, that all the observations concerning the developing countries relate to the effects of their institutional organization on the insurance market, and hence organizational measures must be taken so that those institutions can become stronger in the foreseeable future.

6. Supply, in an insurance market, can emanate from a variety of insurance bodies differing according to their juridical and economic structure. They can also be differentiated according to the method used to fulfil their task of securing the highest proportion of demand. Again, they differ according to the aims pursued, depending on whether they are concerned with individuals alone or with the community as a whole.

Private insurance and public insurance

7. Analysing the characteristics of institutional organization for insurance according to juridical and economic structure, we have private insurance and public insurance.

8. Private insurance is the institutional organization of insurance based on individual initiative and with its specific function carried out by an independent concern.

9. Individual initiative, as a basis, implies that the insurance undertaking has to be set up and maintained, throughout its institutional existence, by the will and impulsion of economic units of a private nature, the latter being considered not only from the juridical angle but also from the standpoint of the undertaking's economic function. The exercise of the insurance function by the independent concern implies that the body called to institutional life by the implusion of individuals and governed in its functions by their decisions must have legal guarantees in order to be able to perform its individual juridical and economic operational functions without direct influence being exerted by the public authorities.

10. Public insurance is the institutional organization of insurance in which control and decision-making are the responsibility of a specific public authority. It should be reiterated that in order to know whether a case in point relates to an individual initiative and an independent undertaking, the circumstances have to be studied from two different angles: juridical and economic. A limited liability insurance company set up with a State body's approval and financial participation will, although coming in the juridical sense within the framework of the private insurance concept as regards its constitution and operation, remain economically outside it, for in that respect it owes its institutional life to the initiative of the State, whose influence will be apparent in its future activities also.

11. On the other hand, intervention by the State, as inspector of individual insurance activities, in its legislative role or as the source of administrative orders within the framework of the political constitution, is not an eliminatory factor despite the fact that, from the economic standpoint, it represents influence by the public authorities on individual management, for what is involved here is the general application of standards rather than the exerting of influence on the free exercise of individual management.

12. The main difference between private and public insurance having thus been elucidated, let us now briefly analyse organizations in the latter category as they appear in the insurance market.

13. Organizations of a public nature may be divided according to which of the following forms they assume.

(a) Bodies coming under the central or federal Government: (Banco de Seguros del Estado del Uruguay, Instituto Nacional de Seguros de Costa Rica, Instituto de Seguros del Estado de Chile);

(b) Bodies coming under provincial governments: (Instituto Autárquico de Seguros de Entre Rios, de Misiones de Mendoza y de Salta, in Argentina, totalling sixteen provincial insurance bodies in that country);

(c) Bodies coming under other public corporations: (In Argentina: Banco Hipotecario Nacional and Ministry of Transport as administrator of the Compulsory Fund for Railway Passenger Accident Insurance; in Guatemala: Insurance Department of the Crédito Hipotecario Nacional, which holds the partial monopoly for State fire and motor vehicle insurance (the Department is also the statutory recipient of all insurance in respect of the institution's property and debtors); in Brazil: Instituto de Providencia e Assistencia dos Servidores do Estado, for fire and life respectively; in Colombia: Insurance Section of the Caja de Crédito Agrario, Industrial y Minero);

(d) Separate insurance departments of social security institutes: (Instituto de Seguridad Social of the Province of Buenos Aires, in Argentina; Caja de Previsión Social de Colombia, which handles the personal insurance of public employees);

(e) Insurance companies under private law whose shares are held by a public body. There are certain companies whose majority shareholders are State undertakings: the State Railways, State Bank and National Electricity Board, in Chile; the Agricultural Insurance Company of the National Federation of Coffee-Growers, in Colombia; the Aseguradora Mexicana and Aseguradora Hidalgo, in Mexico.

14. All these institutions may operate on the basis of a complete monopoly (e.g., the Costa Rica Institute), a partial monopoly for specific branches (e.g., State Insurance Bank, in Uruguay) or for a specific group of persons (e.g., civil servants or contributors to a provident fund, as in Colombia and Guatemala), or in competition with individual concerns, like the State Insurance Institute in Chile and State-owned limited liability insurance companies in certain cases.

15. In countries where insurance has been unable to develop through individual initiative or where only agencies of foreign companies or simply foreign insurances have existed, it is obviously right for the State to organize one or more bodies to provide insurance services for the public.

16. This is what happened in 1911 in Uruguay, where at that date there were no national insurance companies covering elementary risks but only foreign companies completely dependent on the parent body. The State Insurance Bank was accordingly established as a monopoly insurance institution. However, the monopoly did not become effective in the main branches, and complete State control of all insurance, as originally planned, has been transformed into a partial monopoly.[1/]

17. In Costa Rica, a national private company was founded in 1910 and eventually disappeared after eight years. In 1924, the State decided on a total monopoly for itself through the Instituto Nacional de Seguros, an autonomous organization which is today the sole insurance body.[2/]

18. The establishment of these two State bodies has had a favourable effect on their respective insurance markets from the very outset: the policy holders were able to have the guarantee that their claims would be dealt with, the idea of making provision for the future was aroused among the population, and a marked improvement was achieved in the balance of payments under the heading of insurance. In Uruguay, keen competition developed between the Bank and the foreign insurance bodies in the non-monopolized branches, and this had a definitely beneficial impact on rate-fixing policy and the extension of coverage.

19. However, it is interesting to note the case of the Uruguay Bank, which, in face of competition by the private companies (all of them foreign - which is not to say that the results would not have been the same had domestic concerns existed) suffered a comparative regression in fire insurance business during the decade 1955-1965, whereas the companies made a spectacular advance, as is shown by the following table:

1/ The State Insurance Bank created by the Law of 27 December 1911, primarily with the object of proceeding to monopolize all branches of insurance, established a monopoly of life, industrial accident and fire insurance, its entry into effect being conditional on future decrees by the Executive Authorities. In 1914, the issue of the corresponding decrees began. Law No. 9585 of August 1936 abrogated the introduction of further monopolies through administrative channels. The situation has been the subject of lively controversy, and no monopoly has ever been established in such main branches as life and fire.

2/ Created on 30 October 1924 under the name of "Banco Nacional de Seguros", with a total monopoly, it is administered by an Executive Board appointed by the Governing Body, the national life insurance companies and mutual societies existing on that date being allowed to continue operation.

Uruguay

Premiums collected by the companies and by the State Insurance Bank for fire insurance 1/.

	1955	%	1960	%	1965	%
Private companies	4,504,427	28.85	16,430,629	39.33	66,844,861	46.04
Insurance Bank	11,108,162	71.15	25,543,989	60.67	78,333,235	53.96
	15,612,589	100	41,774,618	100	145,178,096	100

20. The position in the socialist countries, where insurance and reinsurance have been nationalized and placed under State management under the general plan of structural changes, is altogether different. The State, as owner of the means of production, does not always insure them in these countries. The citizens, meanwhile, can insure their property and take out personal insurance with a State body. These insurance bodies are autonomous and highly specialized. In most of these countries they operate in direct insurance through a large number of agents who select their risks, and they also deal with reinsurance operations. Compulsory insurance, as a means of getting new business, is applied in exceptional cases only. They are genuine insurance concerns under the direction of highly competent and responsible executives, and have become an important factor for the socialist countries' economic development.

21. We are dealing here with a much-debated question, with a very sharp ideological cleavage between the supporters of direct State intervention in insurance and the opponents of that idea 2/.

22. The main arguments for and against State control of insurance are set out below:

Arguments against State control	Arguments in favour of State control
Inevitable bureaucratization of State services.	Prospect of reducing the premium in proportion to the industrial profit of the insurance.

1/ Thus, by 1965, the private companies had increased their production 14.8 times as compared with 1955, as against a sevenfold increase by the Bank.

2/ Jorge Bande, "La politica del seguro privado". Santiago, Chile, 1953. Editorial Universitaria.

Arguments against State control	Arguments in favour of State control
The combination of political and economic criteria hampers the development of the market.	
Elimination of free competition, and hence of the stimulus to give customers better service.	Eliminates foreign insurance and thus increases national retention.
Insecurity, due to the general absence, in State investments, of conditions of stability, profitability and liquidity.	Direction of investments, in the initial stage, to State-sponsored development works.
Non-operation of State supervision providing guarantee of the proper functioning of private insurance.	
Loss to the State of the large sums paid by the private companies in respect of taxation and State services.	
Also, when insurance is simultaneously made compulsory: Possible conversion of insurance into an instrument of fraud. Uniform premiums destroy the insurer's interest in improving his risks. Transformation of a convenient mercantile operation into a resented form of taxation.	And, concurrently with the introduction of compulsory insurance: Elimination of improvidence in the branches in which this method can be introduced. Saving of the difference between the commission paid to the agents and the cost of the machinery controlling the compulsory insurance operations and effecting premium cover.

23. These arguments have to be taken into consideration in analysing the effects registered in specific markets in the developing countries.

24. The Third World's share in world production of insurance is extremely small. Unfortunately, we have no data more recent than 1963, when Asia, Africa and Latin America accounted for only 4.4 per cent of the world figure[1/].

1/ Production mondiale d'assurances en 1963. Bulletin No. 5 of the Compagnie suisse de réassurances, 1966.

25. This overall figure conceals truly desperate situations if the saturation of certain markets is considered. In Chile, for example, in 1964 there was one insurance concern for every 40,000 inhabitants. The corresponding figures were one per 100,000 in Argentina and one per 50,000 in Panama;[1] and the figures obtained would be far more grotesque if the basis taken for comparison was the active population. This indicates the total inadvisability of increasing the number of insurance bodies in saturated markets, for mini-concerns already imply high administration costs and, as is generally the case in a poorly organized market, a large volume of cessions abroad.

26. We must now examine the effect of new insurance bodies (private or public) which make their appearance in the market. In a saturated market new concerns always have a tendency to produce adverse effects in the initial period of operation. They are also a factor for disequilibrium when they embrace a selected clientèle whose premiums are covered as a matter of course (for example, civil servants, with pay-packet deductions), thus removing the majority of policy holders from the private concerns' orbit. This is reflected in the latter's costs, and leads them to concede even better terms, and this in turn deprives the existing concerns of finance. Accordingly, in markets with controlled rates, like most of the Latin American ones, we find that the public bodies, where they coexist with private ones, usually operate under agreements concluded on the basis of the same premiums as the private concerns, or that there are simply cartel arrangements imposed by the official inspection bodies. Where the competition between private and State bodies occurs in a free-rate market, a close study needs to be made of whether the latter have sufficient control of their expenditure, since they are able to lower the rates to unreasonable limits and disturb the financial balance of the private concerns. For the same reason, State concerns, like private ones, should be subjected to strict control by the official inspection organ, which should impose penalties impartially on all bodies, whether private or public, for infractions committed.

27. My view is that public bodies can only function rationally under economic political systems like those of the socialist countries and in developed countries where they are traditional (Switzerland); in addition, they can function under partial State control in exceptional cases, and so long as the organization established by the executives who directed them when they were still private is maintained (France)[2].

1/ Les marchés d'assurance dans le monde. Compagnie suisse de réassurances, 1964.

2/ They may also be appropriate in countries that were previously colonies, in order to achieve economic independence from the former colonial Powers if they are unable to do so by other means.

In other capitalist countries the coexistence of public and private bodies is a difficult problem which should be considered in the light of the actual needs of the insurance markets concerned.

28. The limited liability insurance companies, for their part, need certain readjustments in their present procedures if they wish to maintain their position as an institutional organization having a favourable impact on the developing countries. Insurance concerns should do much more by extending insurance horizontally (covering the whole of the national territory) and vertically (by working in all branches and modes), or by popularizing insurance (conveying the benefits of private insurance to the less affluent strata of the population).

29. Furthermore, they should apply stricter ethics in competing, so that the public can feel assured that the institutions concerned rest on sound moral foundations. On the other hand, an end should be made to the micro-concerns, whose costs bear heavily on the premiums. The institutions should be raised to the level of high finance so that they can have a real influence on the national economy through properly co-ordinated and well-ordered investments.

30. <u>Mixed (semi-public) insurance bodies</u> - i.e. associations of capital between individuals and public bodies, may also compete in the market.

31. These are generally hybrid concerns whose effects on the market are very similar to those of the public bodies, for like the Sphinx their dominant feature is not the smile of the woman but the body of the lion.

32. Such mixed bodies are fully justified where they provide insurance cover for industrial accidents in a single body, with equal representation of workers and employers, with the State present as guarantor and organizer. Although this system comes within the sphere of social security, it has all the advantages flowing from the status of a private concern (Federal Republic of Germany).

33. Of the mixed bodies, special mention should be made of certain establishments in the field of export credit insurance, in which co-operation between public insurance (political risk) and private insurance (commercial risk and administration) is a matter of sheer logic and is altogether desirable.[1/]

34. The insurance organizations known as mutual insurance societies and co-operatives, which are of a private nature and are protected by special legislation, also deserve mention. Where the mutual society is organized as a major concern, as in some of the European countries and in the United States, its effects are no different from those of the limited liability companies, except that the profits from the operation go not to third parties (shareholders) but to the policy holders themselves.

1/ Compañia de Créditos S.A., in Argentina; Consorcio de Seguros de Credito dos Exportaçães, in Brazil: Compagnie belge d'assurances de crédits (COBAC), in Belgium; Compagnie française d'assurances Crédits pour le commerce extérieur (COFACE), in France; Hermes, in the Federal Republic of Germany.

35. The position differs in the case of mutual societies of a local nature which insure against particular risks, and co-operatives which in turn organize themselves on a national or local basis for all or for specific branches of insurance. These bodies, which, judging from Latin American experience, regard themselves as being of a communal or social nature, have not succeeded - as close analysis shows - in providing the policy holders with benefits flowing from that status except that they enjoy tax exemptions which reduce their costs. It may be asked, as a matter of simple logic and in view of the fact that all forms of insurance are financial operations based on solidarity, whether the same advantage should not be granted to the limited liability companies' policy holders also.

36. This is undoubtedly a point favouring local co-operatives, which are able to capture a clientèle scarcely accessible to commercial insurance by applying the idea of mutual aid, so latent in people left to fend for themselves. However, in general the lack of financial solidity of these societies may render them technically unstable, for a single disaster can swallow up the premiums for a period of years; and they are obliged to build up large reserves, thus rendering the dubious benefits of honorary administration and tax-exemption illusory. It is therefore essential that these bodies should come under close and strict supervision. More important, however, is the fact that as they come to embrace not only poorly endowed individuals but also commercial bodies, they then lose the original idea of mutual aid and transform themselves into insurance concerns pure and simple, forgetting the interests of the rank-and-file members. On the other hand, a "commercial" co-operative organized within a given branch of the industry which represents a good risk from the technical standpoint deprives the other insurers of compensatory business, and where the risk is a poor one, it usually entials heavier expenditure in respect of reinsurance because of lack of compensation.

37. In general, the co-operatives' activities should be carefully watched, as they may have adverse effects on the market because of demogogic methods of securing new business, heavy administrative costs and technical shortcomings. Proof of this is the fact that when a Government anxious to win public favour is replaced by another with sounder principles, the provisions governing the co-operatives are amended so as to give them a sounder financial and organizational basis.1/

1/ In Argentina, co-operatives were exempted from internal taxes and duties under Law No. 12,209, and this gave the insurance co-operatives a tremendous impetus. A significant part of the market switched to the co-operative camp and began to enjoy the taxation benefits granted by the law to the co-operatives and to third parties - not only individuals but also associations - contracting with them. After a series of legislative amendments, the tax exemptions were rescinded, under Law No. 17,196 of 1967, tax equality being restored as between the limited liability companies, insurance co-operatives and mutual societies.

38. The mutual societies and co-operatives are based on ideas similar to those of guilds or corporations - primary insurance bodies which appeared in Europe during the first centuries of the present millennium. These corporations were superseded by the modern organization of universal insurance, and they should be considered as justifiable, in a world where production is paramount, if they remain faithful to their ethical content - i.e. mutual aid.

Reinsurance monopolies

39. A few observations may now be made concerning the reinsurance monopolies which in Latin America take the form of mixed or public bodies. It was in that region that one of the first reinsurance monopolies was established - the Caja Reaseguradora de Chile, founded in 1927. The Instituto de Reaseguros do Brasil was established in 1939, and in 1947 in Argentina the Instituto Mixto de Reaseguros (IMAR) was established, transformed in 1952 into the Instituto de Reaseguros de Argentina (INDER).[1/]

40. Theoretically, there is no justification for a reinsurance monopoly. Its champions usually cite the example of the central banks, which they regard as acting as regulators of the bodies operating directly in their branch. The comparison is arbitrary and completely faulty. The central bank regulates monetary policy by means of rediscounts, whereas the monopoly reinsurance institutes have no major influence, through reinsurance,

1/ The Caja Reaseguradora de Chile was set up under Law No. 4228 of December 1927, as amended by Legislative Decree No. 251 of May 1951. It is a mixed-economy undertaking with equal representation of the State and the private policy holders, with a chairman representing the latter and a Director appointed by the Executive. It enjoys the monopoly of reinsurance abroad in all branches, after prior interchange by the companies. The foreign companies are required to cede it a share quota of 20 per cent of the premium.

The Instituto Mixto de Reaseguros (IMAR) established under the law of 1947 was a monopolistic institution of a mixed nature for Argentine reinsurance under Law No. 14152 of October 1942; it acquired a State character (INDER) and is headed by a five-member Board of Directors appointed by the Executive. It has a monopoly, without interchange between companies being permitted, in the fire, transport, motor vehicle, air travel, passenger accident and earthquake branches. The other branches are open to operation by the companies. Foreign companies are required to cede to it 30 per cent of their production. The Institute retrocedes its surpluses to the companies.

In Brazil, the Instituto de Reaseguros do Brasil was set up under Legislative Decree No. 1186 of April 1939. It is a mixed economy undertaking, but with State preponderance in administration and direction. Domestic and foreign companies are required to cede their surpluses to it, prior interchange not being permitted. In turn, the Institute makes retrocessions to the companies, which are required to accept them.

on the economy in general, since the resultant saving in foreign currency is due not to "monopoly" but to the retention they effect as reinsurers. In economic theory, on the other hand, the State is the owner of all means of foreign payments and can therefore distribute them in accordance with the country's economic needs, whereas there is no reason why a reinsurance institute should have surpluses at its disposal for distribution purposes.

41. The studies I have made of this subject over a period of years are based on the three above-mentioned bodies, which in fact constitute the broadest and fullest source of experience (forty years for Chile, thirty for Brazil and twenty for Argentina). Although a number of official reinsurance companies have been subsequently formed in individual developing countries, the three institutions in question, set up in major insurance markets, may thus be regarded as typical.[1/]

42. The reinsurance monopolies in Latin America were established in accordance with one of two organizational patterns - State[2/] or mixed[3/]. There are also two systems as regards the scope of the monopoly: absolute monopoly of reinsurance operations inside and outside the country,[4/] or freedom of reinsurance inside the country and monopoly of insurance abroad.[5/]

43. The following is an analysis of the practical advantages and drawbacks of monopoly cited by its supporters and opponents:

1/ There are various forms of compulsory cessions and monopolies of reinsurance throughout the world. The following are examples: In Iraq and India, there are compulsory transfers to resident reinsurers. In Iran, a State company known as "Bimeh Iran" has the monopoly of cessions of 25 per cent of the direct insurance of all companies operating in the country. In Indonesia, on 27 June 1963, the Government set up by law the State undertaking known as "Reasuransi Umun Indonesia". In Turkey, the Milli Reasurans Turk Anonim Sirketi, with a specific monopoly, has been operating since 1929. In France, the Caisse Centrale de Réassurance, which holds a monopoly for a small percentage of compulsory cessions, was established in 1946.

2/ Argentina

3/ Brazil and Chile

4/ Argentina and Brazil

5/ Chile

Drawbacks

(a) Predominance of the State in both their direction and administration (including that of the mixed bodies). The result is that the public sector's will may prevail within these bodies despite the fact that private capital plays an equal or, as in Chile, a preponderant role (more than 95 per cent). The reason is that the officials who administer the institutes regard themselves as acting for a body of a special kind, and hence also become officials of a special kind, to the point of seeing themselves at times as depositaries of a particle of State sovereignty. This attitude can be a factor in sowing confusion in the direct insurance market and encouraging non-observance of the universal principles of reinsurance. It may also happen that by invading the sphere of competence of the supervisory authorities or simply by expressing opinions in the presence of the public authorities concerning insurance matters which are outside their purview and range of knowledge they contribute towards the spread of mistaken and biased concepts.

Advantages

(a) They promote a better equilibrium in the balance of payments in the reinsurance category by reducing premium exports. This reduction operates in a technical sense: the country's retention in the better balanced branches is greater, while the reduction in the branches which do not achieve the necessary balance is slower. This is illustrated by the following statistics:

Cessions abroad - Percentage of production

Year	Argentina Fire	Chile Fire	Chile All branches	Brazil All branches
1946	36.0	81.3	61.1	-
1953	32.4	61.3	51.2	13.1
1954	23.8	48.0	38.2	14.3
1955	0.2	33.8	33.4	13.0
1956	9.5	28.7	32.7	16.3
1957	4.7	27.2	33.8	18.4
1958	-12.2	28.3	35.6	14.3
1959	- 7.6	24.0	33.8	18.1
1960	1.3	24.7	34.6	19.4
1961	0.02	23.2	32.5	29.1
1962	- 2.0	26.8	35.1	33.0
1963	5.7	32.4	44.2	31.8
1964	7.3	28.4	42.7	22.7
1965	-	-	-	13.0

<u>Drawbacks</u>

(b) There is a tendency in monopoly institutes towards excessive bureaucratization. The resultant high costs may lead to poorer conditions as regards the remuneration made to insurance companies, whether in the form of reinsurance commissions or the redistribution of surpluses under reciprocal arrangements. This may reach a point where an institute can no longer maintain itself by its own business and becomes a burden on direct insurance.

<u>Advantages</u>

(b) They promote the nationalization of insurance1/. The mere existence of the institute and its activity reduces the foreign companies' share of the total volume of premiums, as is illustrated by the following statistics:

<u>Number of national and foreign companies</u>

	Brazil					Argentina				
Year	National	%	Foreign	%	Total	National	%	Foreign	%	Total
1930	41	59.4	2[illegible]	40.6	69	-	-	-	-	-
1935	44	57.1	33	42.9	77	-	-	-	-	-
1940	55	62.5	33	37.5	88	92	68.7	42	31.3	134
1945	86	77.5	25	22.5	111	-	-	-	-	-
1950	102	78.5	28	21.5	130	101	69.7	44	30.3	145
1955	114	80.3	28	19.7	142	112	71.8	44	28.2	156
1960	141	80.1	35	19.9	176	120	73.2	44	26.8	164
1965	161	82.1	35	17.9	196	173	79.7	33	20.3	217

<u>Distribution of direct production,
as percentage of the total</u>

[illegible]tina	Year	National companies	Foreign companies
	1948/49	87.4	12.6
	1953/54	91.5	8.5
	1958/59	92.4	7.6
	1959/60	93.0	7.0
	1960/61	94.0	6.0
	1961/62	94.7	5.3
	1962/63	94.8	5.2
	1963/64	95.2	4.8

1/ By "nationalization" is meant the exclusion of foreign interests from an insurance market, insurance activities being exclusively reserved for domestic concerns, in contradistinction to "State control", in which the insurance institution passes wholly or partially into the hands of the State, and to "socialization", a method which a State applies in order to obtain total control of insurance activities.

	Year	National companies	Foreign companies
Chile	1950/51	88.3	11.7
	1958/59	89.8	10.2
	1959/60	89.4	10.6
	1960/61	90.0	10.0
	1961/62	90.7	9.3
	1962/63	90.2	9.8
	1963/64	87.9	12.1
	1964/65	91.7	8.3

Sources: Documentation of the Caja Reaseguradora de Chile, the Instituto Nacional de Reaseguros de Argentina and the Instituto de Reaseguros do Brasil.

Drawbacks	Advantages
	However, the nationalization effects of the monopoly institute cannot be completely gauged from the above statistics. Naturally, where a reinsurance monopoly exists, clandestine activity by unauthorized insurance companies, or by insurance brokers on their behalf, becomes more difficult. The monopoly institute, by merely existing, banishes such competition, and by actively prosecuting all bodies and persons responsible for the seepage of insurance abroad, exerts a real influence in consolidating the market.
(c) The main difference between the systems in Argentina and Brazil, on the one hand, and that in Chile, on the other, is that whereas in the former, after retention by the direct insurance company, everything has to be transferred to the institute, in Chile the national companies can interchange among themselves, and are required to cede only such surpluses as are not absorbed by them. There is no doubt	(c) The monopoly reinsurance institute is able to secure a prominent place in the international market thanks to the massive retrocession of surpluses. It negotiates with the retrocessionaries on an equal footing and not from the adverse position from which the small and medium assignors very often have to operate. The counterpart obtained for their cessions, both in the form of

Drawbacks	Advantages
that the Chilean system presents additional advantages and that the other two fail to take account of the special nature of the insurance so as to achieve an increase in the country's retention capacity in an adequate form. The monopoly institute ought to provide opportunities for effecting maximum retention in the country at reasonable cost, and the laws which disallow prior interchange and impose an intricate system of retrocession, with consequently higher costs, fail to meet the above-mentioned objective.	reinsurance commissions and of reciprocal arrangements, is usually advantageous. The placement of automatic contracts and open coverages is greatly facilitated by them, as their cessions produce an adequate balance in most branches. The transfers of balances are negotiated under more liberal arrangements.
(d) The existence of monopoly institutes, in whatever form they operate, encourages the proliferation of insurance companies in the market to the point of saturation. In the event, in the hope of securing the monopoly institute's support, micro-concerns are set up which would normally be unable to exist if they had to place their contracts independently and were not given retrocessions or otherwise fed by the institute. Where such institutes exist, there is no need, in what is in fact the most complicated phase of insurance operations - i.e., a company's reinsurance policy; for either specialization or skill. Insurance companies may thus be set up under the responsibility of executives who are really producers. A sort of technical advisory service is also provided for these micro-concerns by the monopoly institute. The insurance market, which should be based on the law of large numbers, is thus transformed into a	(d) These institutes also serve to discipline the internal market and act as guardians of rate agreements, thereby co-operating with the supervisory authorities in the inspection and control of uniform premiums and conditions. They are "evidential" institutions, since proof of any rate infringements is readily obtainable from a review of its acceptance records.

Drawbacks	Advantages
battlefield for small companies which operate on the basis of small numbers and scramble among themselves for insurance business. This state of affairs also contributes towards an increase in direct insurance costs and a decline in the companies' productivity.	
(e) There is a further disadvantage: in cases where it is desired to place a country's private insurance under State control it is advisable that it should be the central nucleus of such control, because it has the technicians and information at its disposal for achieving that end.	(e) Since the monopoly institute's activity embraces the entire market, it can give a major impetus to the market. By their contacts with foreign countries, such institutes keep up to date on questions of modern coverage and brief the assignors in turn. They thus contribute in some measure towards the modernization of insurance.
	(f) Lastly, as far as their economic possibilities allow, the institutes make a practice of collaborating in the efforts of market investigators to obtain a better theoretical knowledge of insurance and reinsurance problems by maintaining specialized libraries, organizing courses, sponsoring visits by foreign experts, and in general by contributing towards all initiatives conducive to raising the technical and scientific level of the branch.

44. It follows, from the above, that formation of monopoly institutes is a most difficult subject. It is not at all advisable in countries where indigenous or locally-based private reinsurance already exists; and in other countries there may be less inconvenient ways of solving the problem of increasing their retention capacity, for example that employed by Mexican legislation.[1/]

1/ In Mexico, only after the national market has been satisfied can the foreign institutions have recourse to reinsurance abroad.

45. For the rest, the advantages and drawbacks of such institutes having been closely analysed, the conclusion is that most of their advantages reside in the fact that they have an indigenous or locally-based reinsurer at their disposal, and that many of their drawbacks are specifically due to their monopoly nature.

46. Hence national markets wishing to avoid the formation of monopoly institutes should seriously set about taking measures for market modernization by eliminating the archaic conditions prevailing as regards their retention capacity. Should they not do so, they will inevitably end up with a monopoly, for even the most liberal principles recognize the permissibility of direct action by the State in fields where private enterprise has failed to find a solution.

47. It can definitely be asserted that the State is absolutely essential as inspector in insurance and reinsurance operations, provided that it acts through technical officials entirely unconnected with politics. Its action should not be limited to imposing prohibitions and restrictions but should be dynamic and should find expression in the extensive development of the insurance companies' activities, be they private, mixed or State. State inspection should give a powerful impetus to the insurance market through the skill it undoubtedly possesses as controller, and by guaranteeing that operations are conducted in a sound and disciplined manner. If this guarantee of the insurers' solvency is coupled with an active insurance policy calculated to render the companies' activities more dynamic, a notable advance would be made, for the institution of insurance and reinsurance functions in exactly the same way as mechanisms whose stability increases with their speed.

Voluntary insurance - compulsory insurance

48. The second classification of institutional insurance organization relates to the methods employed by the insurer to achieve his objective, and we thus have the division between compulsory insurance and voluntary insurance.

49. The term "voluntary insurance" is used when the relationship between the insurers and the policy holders is based on the free will of the parties.

50. The term "compulsory insurance" is used when that relationship and its content emanante from provisions laid down by a higher authority.

51. Leaving out of account a few cases where insurance has developed historically on the basis of an obligation to insure, generally as a vestige of a compulsory system of mutual defence such as the previously mentioned guilds (this is the case, for example, in some of the Swiss cantons) and also social insurance, which employs that method to ensure a minimum living wage for wage-earners, the predominant system for the main branches in Latin America is voluntary insurance.

52. Compulsory insurance should be employed only where it is manifestly in the public interest. In general, the need arises for guaranteeing claims by victims of accidents resulting from the modern industrial, transport and communications systems. Objective responsibility is usually imposed, with respect to the defenceless individual, on those who operate and use machines of a dangerous nature. Such insurance is entirely logical and necessary in all these cases.

53. The problems arising from compulsory insurance are of various kinds. Its administrative costs have to be kept as low as possible (with the consequence that it cannot be burdened with high commissions or with taxes), since compulsion is already felt as being in the nature of an imposition. It should be highly decentralized and flexible, and based on a carefully constructed legal system which prevents its fraudulent exploitation. The impossibility of selecting risks should be offset, in turn, by the automatic elimination of policy holders who show grave negligence in the case of accidents.

54. It should be pointed out that the social nature of compulsory insurance is no justification whatever for its nationalization. Only a misconception of the real meaning of the word "social" could suggest the conclusion that it is synonymous with "State". There is no doubt, to my mind, that compulsory insurance is fully justified in respect of industrial accidents, motor vehicle third party liability and public passenger transport, provided that all companies in the market are free to handle it within the context of healthy competition under proper State supervision.1/

55. Voluntary insurance, for its part, demands an adequate system for obtaining new business, for the spirit of group providence and the idea of insurance are usually found to be in a very rudimentary state in developing countries. It is therefore necessary to employ methods which bring out the necessity for insuring the population. This task generally devolves on those whose regular occupation consists of acting as intermediaries in respect of insurance supply and demand. These intermediaries may come under an insurance company, like the general run of insurance agents, who are of various kinds according to the legal system obtaining. There are also independent intermediaries such as brokers, who work with some or all of the undertakings in the market. The remuneration received by the intermediaries, whether dependent or independent, normally takes the form of a percentage of the premium, known as commission, which constitutes an element in the insurance cost.

1/ Compulsory insurance in respect of motor vehicle third party risks exists without State monopoly in the following countries: Austria, Belgium, Denmark, Finland, France, Federal Republic of Germany, Ireland, Luxembourg, Norway, Spain, Sweden, Switzerland, Turkey, United Kingdom, Brazil and Venezuela.

56. Whatever is the system employed, these collaborators present institutionally organized insurance with a variety of problems.

57. The first problem is the cost of the commission which is included in the premium. Since, in theory, all insurance bodies sell the same service (the premium for which is usually uniform at standard rates under State control), the competition between them to recruit agents develops around the agent's commission, which is fixed by the control authorities as a "maximum" and in practice is converted into a "minimum". Competition between the agents themselves often develops, in turn, on the basis of handing over part of the premium to the clients on the side, the effect being to convert the premium from the "minimum" normally fixed by the control authorities into a "maximum".

58. The second problem is that in already saturated markets, such as those in the Latin American countries, the agents' activities may intensify the competition, which is already severe between the companies and which may easily become disastrous for the agents.

59. A third problem is that the corps of agents may be infiltrated by persons unqualified, either as regards their technical knowledge or from the ethical standpoint, to carry out so difficult a mission.

60. As to the insurance brokers, one special problem is the danger of their exercising control over a large volume of insurance and exerting a massive influence on the companies and demanding better conditions for themselves and premiums differing from the official ones for their clients; the absence of strict control may accordingly lead to great confusion in the market.

61. Only if there is a disciplined institutional organization backed by insurance concerns which prefer to lose business rather than allow the market to be disrupted, together with strong insurance associations and strict State supervision, can these drawbacks be eliminated. Such control should ensure that it is the State which authorizes this function of intermediary, which should be subject to preliminary submission of proof of competency and a clean record. There should also be a close check on insurance concerns to see that they do not give their agents economic advantages on the side.

62. The agents' operations will only achieve all the success hoped for and voluntary insurance will only win acceptance among the population if there is a system of civic education for developing a spirit of providence at all educational levels.[1/]

1/ "Contribution to the study of the problems of education and popularization in the field of insurance in Latin America". Paper presented by the delegation of Chile at the second session of ALALC, Montevideo, August 1967.

The purpose of this activity is to inculcate in the members of the public, from their earliest youth, the virtues of making provision for the future through insurance. This system should be supplemented by a joint non-partisan campaign run by the insurance companies as a sort of artillery barrage preparing the way for the advance of the insurance agents representing the infantry in this war against the improvidence so strongly rooted in most of the developing countries.

National insurance - International insurance

63. To complete the examination of institutional structures for insurance, a study also has to be made of the effects of international insurance and reinsurance operations on a developing country's market.

64. These operations may be conducted on the basis of the establishment of branch offices or agencies dependent on a centre located abroad, i.e., by an international insurance company; of the activities, purely as such, of foreign insurance concerns in other countries' markets, i.e., of international competition; or of international reinsurance as an institution.

65. The international insurance company is the outcome of the natural desire for expansion of operations in a foreign market, especially when there is too much competition in the home country and the market is saturated.

66. Historically speaking, it was one of the forms of economic colonization which did not require the export of capital, and in which, moreover, services could be provided on behalf of the parent concern without the need for depositing guarantees in the country in which it operated. Insurance activities independent of a metropolitan Power accordingly developed in nearly all the developing countries. In the colonies, insurance services were provided by the colonial Power's companies.

67. This approach was not completely negative, for the developed countries taught the developing ones insurance techniques. The establishment of indigenous insurance companies had begun in some of the countries as early as the middle of last century, and the process is still going on, having been facilitated by protectionist measures in which the generalized establishment of State supervision played an important role.

68. It is inappropriate, in the present study, to catalogue all the protectionist measures which can be applied in order to strengthen an insurance market in process of development, and we shall confine ourselves to a brief exposition to the different trends in the "nationalization" of insurance.

69. One of the forms of protectionism is to allow the foreign companies' agencies and branch offices to work in the national market on the same terms as those applicable to the domestic companies and on the basis of State authorization. This approach is based on the fact that when an undertaking becomes "resident" in all respects, is subject to the same regulations as a domestic concern and pays the same taxes and is required to reinsure until the national market is large enough, its repercussions on the national economy of a given country are not harmful. The only difference between it and a national body is that the profits, after all technical reserves have been constituted, are remitted abroad.1/ These will always be inconsiderable because of the low profitability of insurance in general. The balance of payments appears to be protected with this system.

70. Under another formula no new authorizations are granted to foreign agencies or branch offices. This system makes it possible to prevent congestion of an already saturated market by excluding new foreign companies. It stands to reason that, if the issue of authorizations is to be suspended, the measure should be applied in the first place to foreign concerns. The latter usually plead that this is inequitable, since in their countries freedom of establishment and operation exists, but this argument is unsound, for it is hardly likely that a company from a developing country would be able to work successfully in the market of a developed one.2/

71. In our view, it is perfectly legitimate and quite essential to require foreign companies to make cessions within the national market up to the limit of the latter's capacity. Otherwise, the "residential" nature of the foreign companies would be gravely impaired and there would be obvious damage to the balance of payments.3/

72. In countries where they exist, the monopoly institutions usually require foreign companies to cede a compulsory quota of reinsurances - a measure which resembles the aforementioned one but which operates in a more organized and controlled manner. However, in some of the countries the percentage is small, and it would be necessary to change the quotas so that their balance of payments can be better defended.4/

1/ UNCTAD's Expert Group on Reinsurance, meeting at Geneva in September 1965, recommended that the amount to be invested in the developing countries should be fixed at a minimum of 60 per cent of the gross reinsurance premiums (TD/B/C.3/29, recommendation para. 13).

2/ In Chile, the establishment of new foreign companies has been prohibited ever since 1957, and only those which were operating at that time are allowed to continue.

3/ See footnote to para. 44 above.

4/ In Argentina and Chile, the laws under which the monopoly reinsurance institutes are established provide for compulsory cessions by foreign companies of 30 per cent and 20 per cent respectively.

73. The foreign companies usually argue against these measures, citing the reciprocity they offer. But this has never been either generous or complete. Furthermore, the persistent trend over a period of years has been for the cessions made by the developed countries' insurance and reinsurance companies to be very unfavourable because of the keen competition in respect of premiums and because of the risks emanating from their large-scale industries, whereas the results of reinsurance emanating from the developing countries are favourable because of controlled rates and incipient industrialization.

74. The misguidedness of the urge in Latin America for unrestricted freedom in establishing and operating insurance can be judged from the fact that even in the developed countries of Europe, with their strong markets, age-old insurance institutions are traditions, expert supervision services and experience in economic support operations, such problems arise as the construction to be put on the international character of insurance, the placement of the free assets of non-participating third countries in the region and the formulation of common rules for evaluating technical reserves. If this is what happens in fully developed countries, the magnitude of these problems in the developing countries can be imagined!

75. There is yet another formula for nationalization, namely, the imposition of a total ban on the operations of foreign agencies and branch offices in specific markets and an obligation to convert themselves into national companies. There have always been foreign companies camouflaged as national ones in the developing countries, and this has caused confusion in the market because no-one really knows, with a figurehead in charge, whether an ostensibly national company is genuinely so or is a foreign one.1/

76. This formula is a hypocritical one and can lead nowhere. Under this system, undertakings known as "covers" are established, make a small national retention and cede the bulk of their production abroad. They thus enjoy all the advantages flowing from their status as national companies, but their loyalty is to foreign companies. They are a serious impediment to much-needed Latin American integration, with their representatives, bearing native Latin American names but with foreign-inspired ideas, turning up at discussion meetings on the subject. For all these reasons, we believe that the foreign companies should appear in the market as such, and that severe legislation should be enacted against the figureheads holding shares of national companies on behalf of foreign interests.

1/ In Peru, national insurance companies exist, but many of them are in fact foreign companies controlled by British or North American concerns. In Venezuela, the Insurance Law of 1965 laid down a time-limit of three years for foreign companies to constitute themselves as national ones. In Guatemala, the law nationalized the insurance business unconditionally, with a time-limit of 18 months for conversion from foreign to national.

77. Another factor contributing to confusion in a developing market is the existence of foreign concerns which engage in clandestine market operations without featuring as "resident" or meeting the legal requirements. The term given to this procedure is "international competition", and is the second form of international insurance transaction.

78. The foreign companies sometimes work directly among the resident public, or else work systematically by correspondence or by making use of resident agents or of representatives who visit the country from time to time.

79. These unauthorized companies obtain new business by claiming that the price of insurance is more favourable in a developed country, where the rates are free and insurances are not subject to fluctuations in monetary values. The main branches subject to clandestine activity are personal accident and life, and certain foreign mutual insurance funds with life insurance coverage on savings have also come forward latterly as serious competitors. This form of operation is sometimes supported by international or national brokers, by "national" insurers who own "cover" companies, and by persons normally engaged in business activities.1/

80. This situation is countered in several countries by tax legislation (with provision for prohibitive taxes on these operations) and by penal legislation (which treats the activity of those engaging in them as an offence). The law, we maintain, should deal with these procedures with the utmost rigour, for those responsible for these clandestine operations inflict great damage on the national economy.

81. Another problem involved in international competition concerns transport insurance, which may be contracted either by the buyer or by the seller, according to the form of the international sale of the goods. In this case, by merely changing the form of sale, the insurance can be diverted abroad without falling foul of protectionist laws.

82. The banks in the developed countries usually intervene to divert insurance operations by financing credit operations, and this procedure greatly weakens national insurance markets in the developing countries.

1/ The most exposed of the Latin American countries are those of Central America and Mexico, with its common frontier with the United States of America.

83. Certain countries have tried to overcome this difficulty by requiring their residents to insure in the national market the ships in which the risk is incurred on behalf of the national importer or exporter. These laws undoubtedly restrict freedom of operation in marine insurance, but it is no less certain that the pressures exerted by foreign banks and traders to divert insurance are also a violation of that freedom.1/

84. Another problem of foreign competition by insurance companies concerns works constructed with assistance funds, in respect of the relevant risks (fire, builders' liability, guarantee, and industrial accident insurance). The countries granting assistance (non-gratuitous) usually stipulate that the insurances should be contracted in their market. This procedure, whereby certain insurances are withdrawn from the developing countries under contractual provisions, is unjust. This problem was fully debated at UNCTAD's first session, and paragraph 5 of the recommendations contained in Annex A.IV.23 enunciates a suitable provision.2/

85. The most important of the international transactions are the international reinsurance operations. No attempt will be made in the present exposition to enlarge on their nature, and on the characteristics and forms that they may technically assume. Our sole task is to examine what institutional organization of reinsurance is best suited to a developing country, and what disturbances an unsuitable one can cause in its insurance market.

86. There is no need for recourse to statistics to demonstrate the great flow of wealth, on account of reinsurance premiums, from the developing countries to the service-exporting developed countries (Switzerland, United Kingdom and Federal Republic of Germany), for it is evident from their balance of payments and the financial position of their big professional reinsurance companies.3/

1/ In Argentina, under Law No. 12, 988 of 1947, goods being exported or imported have to be insured when the transport risks are the liability of the consignee or consignor. This provision allows for an exception in favour of North American companies in cases of credit operations between government and government. In Mexico, the insurance law debars unauthorized companies from covering the risks on goods entering or leaving the country where liability devolves on persons domiciled in the country. In Colombia, a provision almost identical with the Mexican one was drafted for inclusion in the new insurance law.

2/ The recommendation is that developed countries which provide aid to developing countries should not prescribe conditions limiting the right of the developing countries to require insurance to be placed in the national market.

3/ In a memorandum submitted by the Chilean delegation to the Committee on Invisibles and Financing Related to Trade (TD/B/C.3/SC.4/1)(New York, 1967), this point was enlarged on in the light of the following considerations: the developing countries demonstrably suffer an impairment in their invisibles trade in insurance and re-insurance in favour of the developed countries; and the creation of indigenous insurance and reinsurance has been possible only on the basis of protectionist measures. Only by creating specific and specialized machinery, it was urged, would a regional policy for reinsurance be possible.

87. This situation is the result of limitations on commissions, reciprocity and the application of new arrangements for reinsurance (e.g., excess of loss, stop loss) for the developing countries.

88. This procedure, of course, has meant an excessive outflow of foreign currency at time of great scarcity - an outflow which has persisted since the Second World War. Since the parent companies of the foreign insurance companies scattered throughout the Third World also act as reinsurers, the problem has got worse, for their executives very often exert considerable influence on the market, and advise against legislative measures which would permit greater national retention.

89. Only in those countries where official reinsurance institutions of a monopoly nature have been established - a solution which cannot be recommended without closer study, as is indicated earlier in this chapter - has it been possible to bring about a radical change in this state of affairs.

Regional and sub-regional integration

90. There has been extensive discussion on these problems at the regional conference of the Latin American Free Trade Association (Asociación Latinoamericana de Libre Comercio, ALALC), and the conclusion reached is that only by regional or sub-regional integration can better retention be achieved.

91. The author of this paper, together with Mr. Andrés Bande, lawyer, submitted a proposal at the second conference for the establishment of a reinsurance body of a private nature.1/ The proposal met with a certain amount of opposition out of fear that any institutional solution, even if the proposed body were of a private nature, would in fact involve establishment on a State basis. This fear is warranted in so far as a political trend directed towards giving the State a far-reaching share in the economy finds support in some of the Latin American countries. On the other hand, the opposition is also due to the vast expansion of foreign insurance in Latin America which, camouflaged as indigenous institutions, has an influence in international negotiations.

92. The philosophy expressed in the proposal is that an order of priority for reinsurance should be laid down, beginning with complete absorption of national capacity, followed by the complete absorption of regional capacity, and only then would the surpluses remaining be placed in the international market. The justification for this is the gravity of the problems facing the traditional markets as regards the absorption of large surpluses produced in the region, resulting in some cases in deficits due to the impossibility of providing complete coverage.

1/ "Towards a Latin American policy for insurance and reinsurance". Paper presented at the second conference of ALALC, Montevideo, 1967.

93. At ALALC's first conference at Montevideo in May 1966, the idea of developing the regional reinsurance market was considered at length, and the conference conclusions contain the following passage:

"As regards the strengthening of the regional reinsurance market, stress was laid on the need for greater commercial co-operation by encouraging and intensifying the interchange of current business".

94. In the deliberations on the subject, the different delegations advanced various viewpoints which may be summarized as follows:

95. One group of participants supported the idea of creating a private multinational regional institute for reinsurance as the most suitable instrument for increasing the retention capacity of the countries of the region as a whole, in line with UNCTAD's recommendations. It was emphasized, furthermore, that consideration should be given to legislation with a view to liberating insurers from compulsory cessions in favour of monopoly institutions, provided that they reinsured themselves with the regional institute.

96. Other delegates favoured progressive reciprocity of interchange, for which it would be necessary for the Governments concerned to take steps to give priority and exchange guarantees for the payment of premiums and accident claims.

97. A third view was taken by other delegations, who considered that the right road had been indicated by the establishment of local private reinsurance bodies under a voluntary system. That possibility, they submitted, was conditional on the creation by Governments of the juridical and institutional framework designed to facilitate and stimulate the development of reinsurance activity in the direction indicated. Reference was made, in that connexion, to the success achieved by a multinational company, the Compañía de Reaseguros de Centroamerica S.A., in initiating its operations.

98. At ALALC's second conference, held at Montevideo in September 1967, the basic principle was established that integration should proceed in respect of reinsurance and not of direct insurance. The consensus was that strong encouragement should be given to the interchange of voluntary insurance between insurers and reinsurers in the region, particularly through sub-regional agreements, and that private reinsurance should be promoted and supported. All this should be supplemented by studies of the characteristics of each of the markets of the countries parties to the Montevideo agreement, so that interchange would be more or less balanced and come about by degrees in an effective manner. It was further agreed to urge on the Governments concerned a taxation and exchange policy for insurance and reinsurance which would make possible the integration process pursued, and also to ask the ALALC countries where official reinsurance bodies operated to lay down liberalization standards conducive to integration.

99. Regarding the exchange of views that took place on the same subject in the Federation of Afro-Asian Insurers and Reinsurers (FAIR), it is significant that at the meeting held at Karachi in February 1967 discussion centred on the advantages deriving for the Federation's member States from the increased interchange already occurring, and recommendations were made to improve and support these reciprocal operations.

100. It was also agreed to study the question of establishing a regional reinsurance body in accordance with the needs and conditions existing in the Afro-Asian insurance markets, and to give such studies a realistic and practical start.1/

101. My purpose has been to outline a basic criterion for the minimum co-operation required of insurance in the developed countries. Only by joint defence, with effective nationalization measures and the application of the "residence" principle, and by the introduction of orders of priority for reinsurance cessions, can a real strengthening of those markets be achieved. To that end, it is essential, in the first place, to discipline the activity of foreign insurance in the internal market and, in the case of reinsurance, to apply new forms, which, like those described, prevent the unnecessary outflow of cessions from individual countries and from the region.

102. The point to be emphasized is that internationality in respect of direct insurance is a concept which is obsolescent2/, whereas reinsurance is indisputably international in character. However, the characteristic in question has to be conceived within an ordered framework adequately supplemented by a duly organized national, regional and international system rather than along anarchical lines.

1/ First General Assembly of the Federation of Afro-Asian Insurers and Reinsurers, Karachi, 16-18 February 1967. Earlier material on this subject was examined in a study by the Federation entitled "Regional reinsurance institutions and their role in the promotion and development of reinsurance in the developing countries".

2/ Mr. I.P.M. Milne, in an article on "Nationalism in insurance" published in Policy Holder, London, in September 1965, after analysing nationalization measures in various parts of the world, concludes that insurance should cease to be international business, and that that international role belonged to reinsurance based on scientific systems.

B. Summary of discussion

103. Many participants were strongly of the opinion that insurance and reinsurance activities should not be left entirely to private enterprise acting without any control or interference by public authorities. They supported their views by reference to the actual situation and policies in many developed and developing countries and in the socialist countries of Eastern Europe. Several speakers concluded that without any interference by the authorities efforts of developing countries aimed at expanding and strengthening their national insurance and reinsurance markets would hardly have any chance of success. In this connexion several participants from developing countries emphasized the constructive role of the State in the institutional development of the insurance markets in developing countries, either through the supervision of the insurance and reinsurance operations or through the State's direct participation in these activities, while other participants from developing countries expressed the view that both public and private insurance and reinsurance institutions could operate simultaneously in a market with very good results.

104. Several speakers from developing countries in which insurance was nationalized or where State insurance institutions operated stated that, in view of the scarcity of private capital in developing countries that could be attracted to insurance and reinsurance, the State could not wait passively, as some speakers at the seminar advocated, until such capital appeared, but had to create the national insurance and reinsurance services required. It was the general economic and social aims, rather than the profit motive which prompted the State to act in this direction. They pointed out that the State insurance and reinsurance institutions in developing countries had registered some notable successes; for instance, they had been able to expand their services and reach broader masses of population, especially in the agricultural areas.

105. Participants from the socialist countries of Eastern Europe, referring to the fact that their countries' insurance and reinsurance services were nationalized expressed the opinion that there was no contradiction between a State-owned insurance industry and an adequate supply of insurance services. In their opinion the efficiency of the State insurance and reinsurance institutions might be as great as that of private institutions and sometimes even greater. These participants also drew attention to inaccuracies in the background paper's description of insurance and reinsurance in socialist countries. Thus, they explained that the means of production, both in industry and agriculture, were insured in many socialist countries.

106. Several participants from developing countries also referred to the problems connected with the operation of foreign insurance and reinsurance institutions in developing countries, especially in cases where there was complete freedom of establishment and of transacting business in these countries. In their view, by permitting this, developing countries opened their insurance markets to powerful foreign competition from the developed market economy countries. Owing to the relative weakness of the domestic insurance institutions in many developing countries, the latter required public protection and assistance. This situation had led a number of developing countries to nationalize their insurance and reinsurance institutions.

Chapter VIII

INSURANCE STATISTICS INCLUDING APPLIED MATHEMATICS AND CYBERNETICS

A. Background paper by Mr. Dan Landin (Sweden)

Importance of statistics

1. Statistics serve the same function in the transaction of business as is performed by instruments in keeping those in charge of machines or other apparatus informed of their operation and the possible necessity of taking action to modify their operation. It is not possible to conduct any economic transactions properly without following the course of events through statistics showing what has happened and indicating future trends. This applies perhaps to a greater extent in the case of insurance than in any other kind of economic operations.

2. Insurance statistics can be subdivided into three major types: operational statistics, statistics of a national insurance market and statistics of international insurance and reinsurance transactions. We shall devote some attention to each of these types.

Operational statistics

3. Operational statistics come closest to serving the function of an instrument for recording the existing state of affairs and indicating whether any action needs to be taken to alter the future course of events. Let us illustrate:

4. The purpose of insurance is to indemnify individuals or corporations for the economic loss that may result from fortuitous events affecting the life, property or business requiring protection. In order to understand how operational statistics are used in insurance, we need to consider the fundamental principle on which insurance operates.

5. To insure successfully it is necessary to have at least a rough idea of the frequency and economic effect of the events against which insurance is to be offered. Such data, which should preferably be derived from observations, will provide the basis for what is often termed the risk rate. The risk rate is then loaded for operating expenses, of which the principal types are acquisition costs and management expenses. One normally also loads for errors in calculations and/or fluctuations in the calculated frequency and for the return (profit or interest) on the capital invested in the insurance project.

6. Operational statistics are used in the first place to check whether the basic assumptions hold good when the insurance operations have started and are in progress.

7. In most classes of insurance, for example, the frequencies originally estimated - however good the original estimates were - often, as a result of changes in the environment of the insurance operations, alter in such a way that the original assumptions need correction. However primitive the impulses for such corrections may be, if they are numerically based, they are operational statistics in the broad sense. Operational statistics in a stricter sense are more advanced ways of obtaining impulses for such adjustments.

8. With regard to changes in the environment in which an insurance company operates, personal accident insurance may be mentioned. In most countries there were formerly rather large differences in the premium rates for different occupations. Quite obviously, the accident risk that an office clerk runs is smaller than that run by a chimney-sweep. However, as communications have developed, particularly motor transport, the situation in the industrialized countries has developed to the point where a very large proportion of accidents occur in connexion with transportation, where all occupations are roughly equally exposed. The result is that the differences in rates for different occupations have had to be reduced.

9. Of course, it is not only the factors that affect the outcome of the indemnities that should be made the subject of operational statistics. Other factors affecting the cost of insurance are also the subject of assumptions and are subject to error and change. Thus, if insurance sales are slack or show a tendency to slacken they may require the stimulus of higher commissions, which in turn increase the necessary loading for acquisition costs. Administrative expenses may be found to be higher than originally expected, which again, after analysis, may require an increase in the price at which the insurance is sold. Some estimates may of course also prove to have been too high, which permits a change of price in the opposite direction.

10. The following is an example of operational statistics for a class of insurance or a whole insurance company:

Table 1

Item	1967	Prognosis as at end of:												1968
		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Premium income	153	164	164	163	162	160	163	165	166	167	169	168	168	168
Claims Paid and out-standing	107	118	118	117	118	118	120	121	121	120	119	120	120	120
Expenses	43	44	45	47	47	47	46	45	45	46	46	45	45	45
Result	+ 3	+ 2	+ 1	- 1	- 3	- 5	- 3	- 1	0	+ 1	+ 4	+ 3	+ 3	+ 3

11. Of the items influencing the economic outcome of insurance one stands out as particularly suitable for following up statistically and for forecasting: the expenses. As opposed to premium income and claims, which are of a more elusive nature, expense data are sometimes more readily available and therefore easier to make the subject of statistics, and the science of budgetary control would seem to be more advanced in analysing this item of an insurance company's economy.

12. The analysis can be broken down both horizontally and vertically, i.e. the different kinds of expenses can be analysed as well as the overall expenses in the different sectors (classes of insurance, geographical areas, departments etc.).

13. An important comparison, often made, is that between costs, on the one hand, and the effect produced, on the other. An example:

Table 2

Year	Budgeted cost for quantity actually sold	Actual cost
1	59.3	60.1
2	64.1	67.4
3	66.7	68.3
4	70.2	70.6
5	71.8	73.5

14. In connexion with the above table it should be noted that it is often the budgeted cost that is used in calculating the overall premium rate offered.

15. On the claims side there is one kind of forecasting that requires a special statistical control. Many claims are not settled in the course of the business year in which they occur. This necessitates the setting up of reserves for outstanding claims. Each component item of such a reserve is arrived at by estimate. It is essential that such estimates be on the whole accurate.

16. Complete accuracy is obviously not possible. For balance sheet purposes it is important to make sure that the sum of the estimates is on the safe (pessimistic) side. For statistical purposes it may not be so, however, since, if a reader of the statistics is aware that estimates always tend in one direction, he may be liable to allow for this and draw more optimistic conclusions than those directly warranted by the figures.

17. The approach in making follow-ups of this kind is illustrated in Table 3:

Table 3

Business year		Situation as at: End of business year	12 months later	24 months later
1	Claims paid	5,500	13,000	18,500
	Unpaid claims (est.)	15,500	10,500	4,500
	Total claims	21,000	23,500	23,000 etc.etc.
	Safety margin	?	-2,500	+500
2	Claims paid	8,000	12,500	
	Unpaid claims (est.)	19,500	13,500	
	Total claims	27,500	26,000	
	Safety margin	?	+1,500	
3	Claims paid	9,500		
	Unpaid claims (est.)	20,500		
	Total claims	30,000		
	Safety margin	?		
		etc. etc.		

Reinsurance statistics

18. Reinsurance transactions can generally be studied statistically by methods similar to those used in studying insurance.

19. However, there is a special aspect to reinsurance, when it is effected between two insurance companies, namely the comparison of the respective results of the business thus exchanged reciprocally. Table 4 shows how such a study may be made:

Table 4

Year	Result of business ceded by company A to company B	Result of business ceded by company B to company A	Net result as viewed by company A	
			In year	Cumulative
1	+ 13,000	+ 8,000	- 5,000	- 5,000
2	+ 4,000	- 6,000	- 10,000	- 15,000
3	- 7,000	+ 2,000	+ 9,000	- 6,000
4	- 5,000	- 4,000	+ 1,000	- 5,000
5	+ 3,000	+ 19,000	+ 16,000	+ 11,000

General observations

20. All these statistical analyses of the operations of an insurance company represent a kind of feeling of the pulse of the business. In order that reasonably reliable conclusions may be drawn from the comparisons made, it is of extreme importance that the data observed be correctly periodized.

21. It is alsc important to bear in mind that the flow of data, whether handled manually or mechanically, is inevitably subject to disturbances of different kinds. (Certain particulars may be missing etc.).

22. When analysing statistical material, it is also necessary to make sure that it really comprises the precise information being sought. Such information may sometimes not be available, and corrections or allowances often have to be made in order that the wrong conclusions are not drawn.

National statistics

23. National insurance statistics would seem a necessity for several reasons. The insurance transacted in a country forms part of the country's total economic activity. The share of insurance in the gross national product is of great interest, and comparisons with the situation in other countries are made in international insurance statistics.

24. Within the field of insurance itself one can envisage two other important reasons for producing statistics of the insurance business in a country. A country's responsible authorities have to ascertain and maintain the soundness of its insurance companies. Without financial stability the purpose of insurance could not be fulfilled. On the other hand it is also necessary for the authorities to safeguard the public interest by ensuring that the public is able to obtain insurance without excessive cost.

25. Statistics at the national level are the sums of the economic data obtained from each of the individual companies operating in the national market. To permit the production of national statistics, the individual companies must produce statistics of their transactions in a manner that is uniform.

26. Data concerning the following items would seem necessary as a basis for national statistics:

A. Unearned premiums at the beginning of the year;

B. Unpaid claims at the beginning of the year;

C. Premiums received in the course of the year;

D. Investment income in the course of the year;

E. Claims paid in the course of the year;

F. Expenses incurred in the course of the year;

G. Unearned premiums at the end of the year;

H. Unpaid claims at the end of the year;

I. Other expenses;

J. Profit (or loss) on the year's operations.

27. The above is a condensed set of data needed for analysing insurance transactions. Reinsurance transactions follow in principle the same pattern. The different items can be subdivided in different ways, either "vertically" (for instance, expenses could be subdivided into acquisition costs and administration costs) or "horizontally" (subdivision into classes of insurance such as life, fire, motor, marine, etc.).

28. When an insurance company reinsures, which is generally the case, and when an insurance company itself assumes reinsurance from other companies, it is also necessary to classify the operations under the main headings listed above. The following table 5 illustrates the interconnexion of these different transactions between the companies involved in the overall operations of a given company:

Table 5

Item	Direct business	Assumed reinsurance	Ceded reinsurance	Net business
Premiums written	180,000	25,000	15,000	190,000
Prem. res. 1/1	+ 85,000	+ 11,000	+ 5,000	+ 91,000
Prem. res. 31/12	- 90,000	- 12,000	- 6,000	- 96,000
Premiums earned	175,000	24,000	14,000	185,000
Claims paid	120,000	14,000	11,000	123,000
Loss Res. 1/1	- 169,000	- 6,000	- 3,000	- 172,000
Loss Res. 31/12	+ 177,000	+ 8,000	+ 9,000	+ 176,000
Losses incurred	128,000	16,000	17,000	127,000
Expenses	54,000	7,000	5,000	56,000
Result	- 7,000	+ 1,000	- 8,000	+ 2,000

International statistics

29. When we consider statistics of international insurance and reinsurance transactions, we immediately meet the difficulty of differences in concepts and terminology. It should at once be emphasized that there is no fundamental necessity for these differences, which are all traceable to tradition. Some of them may even be attributable to insufficient knowledge of the nature of insurance and reinsurance or to the absence of a real desire for clarity in analysing insurance and reinsurance transactions.

30. However, just as uniformity is a necessity for the production of national statistics, it is necessary also for statistics at the international level.

31. A student will find that certain countries do not even require individual companies to report on their business in the manner illustrated in table 5. Statistics produced in certain other countries enable the student to obtain some of the data given in the table, but hardly any country produces a full record of the data indicated.

International transactions

32. We have already mentioned how important it is to have national statistics in order that international comparisons may be made. Certain countries produce more comprehensive statistics, but these do not permit comparison with other countries producing only summary statistics or even none at all. The ideal would, of course, be for all countries to agree on some minimum standard, individual countries being allowed to produce figures in greater detail, where this is possible and is considered desirable.

33. One of the purposes of national statistics is to ascertain the effect of international insurance and reinsurance transactions on a country's balance of payments.

34. The method employed is very similar to that used in table 5, but one must take into account only that part of the transactions that transcends the economic border of the country. If the companies of a country are required to segregate their transactions with foreign clients and insurance companies from their domestic business, we then can learn the effect of their operations on the balance of payments. This is illustrated in the following table:

Table 6

	Direct foreign business	Assumed foreign reinsurance	Reinsurance ceded abroad	Net
Premiums	35,000	13,000	21,000	27,000
Change in deposit prem. res.	+ 1,000	+ 2,000	+ 4,000	+ 1,000
Premiums transferred	34,000	11,000	17,000	28,000
Paid claims	20,000	10,000	15,000	15,000
Change in deposited loss res.	0	- 1,000	- 2,000	+ 1,000
Losses transferred	20,000	9,000	13,000	16,000
Expenses (abroad)	12,000	5,000	6,000	11,000
Effect on balance of payments	+ 2,000	- 3,000	+ 2,000	+ 1,000

35. It must be remembered, however, that such tables give the end-of-year situation. But there is often a considerable delay in actually effecting the payments resulting from the transactions. Since overall foreign payments are usually recorded on a cash basis, the contribution of insurance and reinsurance as set out in table 6 does not fit exactly into the overall pattern, owing to the lack of synchronization which is also inherent in other transactions. It would be desirable that the foreign trade statistics should be on an accounting rather than on a cash basis. In this regard insurance transactions are more sophisticated than other trade transactions as far as their recording at the national level is concerned.

Basic sources of statistical information

36. Let us also devote some attention to the sources of statistical information at different levels, viz. at company, national and international levels.

37. For the company there are three main sources: for premium income, its cash ledgers or premium accounts; for claims, the payment records and claims accounts of its book-keeping; for expenses, commission payment lists or statements and the pay-roll. In the normal case these transactions are recorded daily as they occur and are registered in the official accounts of the company. However, a company may desire fuller particulars. These may be obtained automatically by subdividing the official accounts into different classes of insurance, for example, which is the normal practice. If a further breakdown is needed, there are two main sources of

information: on the income (premium) side, the original applications for insurance or the records (cards, manual or punched, and, derived therefrom, records on magnetic tape or disc or memory cell) and, on the claims side, the claims files and summaries, whether manual or in the form of punched cards etc.

38. For reinsurance transactions we have the same parallel main sources of information, i.e. ledgers or accounts in the official book-keeping of a company. When more detailed information is needed, the basic sources are the premium and claim bordereaux, which are common in reinsurance transactions. As in the case of insurance, such records may also be kept in a more mechanized form, such as on punched cards, magnetic tape etc.

Statistical offices

39. In many national markets organizations - governmental or private - have been set up to deal with insurance statistics generally on behalf of the insurance companies operating in the country. Some examples are mentioned below.

40. There are organizations which record the total loss of or severe damage to merchant vessels.

41. There are organizations which record the number of fire outbreaks, subdividing the total into causes, and recording the overall cost of the fires. The recorders sometimes analyse the size of the individual fire losses.

42. In this connexion it should not be forgotten that the supervisory authorities which appear to exist in almost every country collect a considerable amount of statistical data on insurance and reinsurance.

43. Among the purely commercial organizations recording insurance and reinsurance data, one of note is the A.M. Best Company Inc., of New Jersey, U.S.A. This company produces a variety of statistical reports of very high standing.

44. In most of the industrialized countries records are kept of victims of road accidents. In this connexion it is worth mentioning that, here again, comparisons between countries are sometimes difficult. Thus, one country may record the victims who died at the scene of the accident, others those who died within one day or three days of the accident, others again those dying within a year, and so on.

45. This leads us again to the importance of standardizing the main definitions, so that there may be sufficient comparability at the national and international levels.

46. It should be repeated that the obstacles raised in this connexion are always entirely artificial. Thus, in theory, there are great possibilities of standardizing

definitions of data at different levels. The criteria to be adopted would seem to be the standards of the countries having the most highly developed statistics. Countries lagging behind would therefore do well to improve their standards so as to match those of the countries having the most highly developed statistics.

Statistical inquiries

47. General analyses of operations have already been touched on. These serve as a basis for management decisions to take action of some kind or other.

48. One field for statistical inquiries and studies that is not so directly connected with the types of statistics already mentioned, is the marketing of insurance. Two types of inquiries may be made in this field.

49. The first is a study of the need for a given type of insurance. Here the techniques are very similar to those used for market studies in respect of any type of goods or service it is desired to offer, and would almost invariably include Gallup inquiries and a study of the operations of competitors. As mentioned above, and especially if a new class of insurance is to be introduced, the claims frequency and claims pattern need to be studied before a new form of insurance or a variation of an existing form of insurance is marketed.

50. The following is an example of what may happen if adequate market research is not carried out:

51. The insurance companies in country A have for many years insured pleasure craft. Over the years they have, sometimes after costly experiences, learnt that:

(a) Big boats require a higher rate than small boats;

(b) Fast boats require a higher rate than slow boats;

(c) The climatic conditions in country A are such that the normal sailing season has to be restricted to the period from 1 April to 15 November. If the sailing season is to be prolonged, an additional premium is necessary.

An insurer in country B enters market A, offering a uniform premium in the neighbourhood of that required for small and slow boats rather than that required for big and fast boats, and, in addition, extends the sailing season free of charge to the whole year. The result in country A for the insurer from country B is disastrous. This could have been avoided with proper statistical inquiries or by making use of the experience already gained by other insurers.

52. The study of business already in force does not necessarily have to be continuous, just as an operator may not need to keep his eye continually on an instrument.

53. A well managed insurance company cannot make it its sole purpose merely to indemnify against economic loss, it should also work actively to prevent losses. This secondary purpose of an insurance company also calls for statistical inquiries into the effect of the loss-prevention measures that have been taken. While most of the statistical inquiries mentioned earlier are part of the routine in the conduct of insurance, studies of the effect of loss-prevention are not so common. One reason may be the difficulties sometimes encountered in making such studies.

54. In this field of statistical inquiry it would often be useful to have a control group, but it is almost against the grain of an insurer to allow a category of its policy-holders not to take preventive measures in order to serve as a control group.

55. Occasionally categories of policy-holders constitute a control group without being aware of the fact. Thus many car drivers do not use seat belts and thereby form a control group vis-a-vis those drivers (and passengers) who do use them, thus permitting a study of the preventive effect of seat belts, from which it has been possible to conclude that such equipment is of immense importance in preventing loss of life and severe personal injuries.

Applied mathematics

56. The different calculations dealt with so far obviously involve, as do all statistics, the use of mathematics. Usually, however, except in the rating of life insurance, only elementary mathematics are involved. More advanced mathematics have so far rarely been applied outside the field of life and sickness insurance.

57. The main reason for this would seem to be the fact that, contrary to what might at first be thought, the "non-life" classes of insurance are far more complex and elusive to mathematical analysis than is life insurance.

58. Since the applications of advanced mathematics to life insurance would now seem to have been fairly thoroughly explored, while the "non-life" classes are showing a growing need for a firmer mathematical framework, the present trend is to extend the application of mathematical science to the "non-life" classes of insurance also.

59. Life insurance can be said to be based on a mathematical model. In "non-life" insurance, one way of defining the problem of applying advanced mathematics is to say that a mathematical model, or rather a number of mathematical models, is also sought in this field. The fact that all these new mathematical models appear to be

very complex explains why attempts in this field are of so much later date than in the field of life insurance and why very few successes have been recorded.

60. One sector in which certain advances have been made is the isolation of and levelling out of the different factors affecting the frequency and/or extent of damage. Such an analysis has been applied to motor insurance and homeowners' insurance. In these types of insurance the total number of policies - and consequently also of claims - is large, while the sub-classes (for instance by type and model year in the case of cars or by geographical area in the case of buildings) contain much fewer observations, and therefore require more complicated mathematical analysis to ascertain the difference between them.

61. It is also very necessary to apply advanced mathematics in the field of reinsurance, especially in the so-called non-proportional types of reinsurance. Here too, the difficulties encountered are immense, owing to the complexity of the insurance business on which reinsurance is based, but considerable progress has lately been made in applying advanced mathematics in order to establish a firmer basis for reinsurance agreements and their terms.

Mechanization

62. Man's development has been characterized by the use of tools. In the early stages, tools extended his physical capability. Recent centuries, and particularly the present one have been characterized by man's extension of his intellectual powers by the use of more and more advanced computers. In addition, the continuous observation of instruments is being handed over to machines (automation).

63. Since insurance deals to such an extent with figures, computers are being used increasingly in this field. In fact, computing equipment has more or less revolutionized the flow of data in modern insurance companies and has now developed into electronic data-processing (EDP).

64. While a computer is incapable of doing what man cannot do, any statistical or mathematical operation that is possible to man can also in principle be done by a computer. Thus, all the statistical operations previously mentioned can be performed more efficiently, and immensely faster, by computers.

65. Even if a computer operates with very much greater speed and precision than a human being, it cannot do anything which it has not been instructed to do. While a human being can adapt himself to new unexperienced situations, the computer cannot. Every situation which the computer may meet must therefore be foreseen. Furthermore, the data fed to the computer must be absolutely correct and consistent data if it is to function properly.

66. In order to benefit from the use of a computer, an insurance company must therefore have its data in a consistent form and must operate generally in a very consistent manner.

67. The operational data must sometimes be used in a manner different from that followed in day-to-day business operations. The computer data in respect of the latter are sometimes called an administrative file. From this file the operational or statistical file is derived. The statistical file, at least when magnetic tape is used, will give a monetary picture of the situation and thus soon become out of date. The administrative file on the other hand is continually revised and brought up to date, often daily. While it would be preferable to draw operational statistics from the administrative file, since the latter is the most up-to-date record in consistent form which an insurance company possesses, the daily use of the administrative file for other purposes makes it difficult to use it also for analysis of operations.

68. Some computer producers have developed so-called management information systems (MIS) designed automatically to inform management how the business is running and, in particular, to give signals when some action may have to be taken. Such systems have only begun to be tackled by some companies that are far advanced in computer applications.

69. One great difficulty that an insurance company faces in introducing such automatic systems is the defining of the situations in which the system should give the management an alarm signal. There are constant variations in the data observed and the difficulty lies in deciding the tolerances to be allowed before the alarm is given.

Statistical training

70. The increasing complexity of business - including insurance, which serves as a lubricant in economic life - requires ever greater competence on the part of insurers and of those producing the material on which management bases its analysis and decisions. In well developed insurance companies there is therefore a growing need for statisticians and actuaries. Law or tradition have required the employment of actuaries in life insurance, but the use of competent statisticians in general (non-life) insurance also is growing.

71. In the United Kingdom, France, Japan and the United States, the training and examination of actuaries are carried out by professional bodies (associations of

actuaries), while in most other countries the training of actuaries is organized, wholly or partly, in conjunction with universities, at which students can obtain a degree or diploma.

72. However, practical experience is of the utmost importance in insurance, and in most countries the theoretical actuarial training is followed by practical training leading to the final stage of the actuary's examination. These examinations are usually conducted by the professional bodies themselves, but in some countries are held under government auspices. In Belgium and France the submission and defence of a thesis on an actuarial subject form part of the examination.

73. There is one aspect of statistical training which may not be so apparent. It is not only those who produce statistics who need such training. The consumers of statistics (management etc.) - often "laymen" in statistics - also need education and training in the art of reading and interpreting statistics.

74. To sum up, there is probably no business in which statistics play such an important role as they do in insurance. Many other types of business, such as engineering, quality control, and mathematical, biological and zoological research, make use of advanced forms of statistics. However, since the laws of probability and their application form the core of insurance, it is quite obvious that statistics play a particularly important role in this field.

Future prospects

75. In closing it should also be mentioned that insurance can be studied in the laboratory by simulating claims experience. This experimental method is still in its initial stages but can be expected to become more widespread. Such simulations can perform the dual role of developing new systems of insurance before they are marketed so that a more perfect product can be presented, and, at the same time, providing a continual reference in the day-to-day analysis and management of insurance business already in operation.

B. Summary of discussion

76. Many of the participants who spoke on this subject emphasized the importance of insurance statistics at all levels, as they constituted the backbone of the insurance and reinsurance business. In this connexion they said that special attention should be paid to the gathering of reliable statistical information at the level of each insurance enterprise by the use of appropriate methods of recording insurance and reinsurance transactions. Sound insurance statistics at the company level were indispensable for the correct conduct and management of the business and they also constituted the primary source of statistical information to be compiled at the national level.

77. It was generally agreed that the annual returns submitted by the individual institutions should satisfy the requirements of an effective supervision of the insurance and reinsurance industry. Some participants from developing countries referred to a very special situation concerning returns (annual reports and balance sheets) of the State insurance institutions in developing countries, which were often submitted not only to the Government executive organs concerned but also to the legislature.

78. Several participants from developing countries specified the criteria which returns of insurance institutions should satisfy. The returns should convey a concise and clear picture of the operations of the institution and, in particular, of the financial and technical matters which were specifically subject to supervision; they should also be collected systematically for a considerable period of time on a comparable basis. Some participants felt that the authorities of developing countries should refrain from making too extensive and frequent use of specialized enquiries in the field of insurance, the usefulness of such special statistical enquiries being rather limited and their conduct costly, particularly as their reliability tended to be very low.

79. With regard to the statistics of international insurance and reinsurance transactions, the participants from developing countries felt that the compilation of such data, especially those concerning the effect of insurance and reinsurance transactions on their balance of payments, was extremely important for those countries. Several participants welcomed the information that UNCTAD was dealing with the problems of insurance statistics and, in particular, that a study was being prepared on this subject which would aim at the unification of major statistical definitions in insurance and reinsurance and at working out minimum statistical requirements. Some participants suggested that an international statistical centre for insurance should be established within the United Nations to collect and compile insurance statistics at the international level.

80. It was mentioned generally that in non-life insurance business the scope for the application of the statistical and mathematical methods was comparatively limited. ~~More research work would be required before the conduct of the non-life business~~ could be based to a much greater extent on statistical foundations, in particular as regards premium rating, the evaluation of the technical reserves, including the reserves for outstanding claims. Many participants referred to the factor of

uncertainty at the time of the preparation of the statistical data concerning the evaluation of the technical reserves, which often led to the inclusion of significant margins of safety in the estimates. In the view of the author of the background paper, many Western European insurance institutions exaggerated the amounts of the safety margins in their reserves, thus including considerable "hidden" reserves in their annual returns and accounts. This problem of safety margins or other types of safety loadings of the reserves acquired considerable practical significance in countries where premium rates were controlled. It was obvious that the introduction of higher margins or loadings led generally to an increase in premium rates.

Annex 1

Programme of the Inter-regional Seminar on Insurance and Reinsurance

Monday 20 October	(Afternoon session)	- Opening of the Seminar Statement by a Czechoslovak Government Official Statement by a United Nations representative - The economic role of insurance Discussion leader: Mr. A. Rajagopalan (India)
Tuesday 21 October		- Life and accident insurance Discussion leader: Mr. K. Urban (Czechoslovakia)
Wednesday 22 October		- Non-life insurance Discussion leader: Mr. D. Landin (Sweden)
Thursday 23 October		- Insurance or risks connected with foreign trade: marine cargo and hull insurance Discussion leader: Mr. P. Danda (Czechoslovakia)
Friday 24 October		- Reinsurance Discussion leader: Mr. R.A.J. Porter (United Kingdom)
Saturday 25 October Monday 27 October	(Morning session)	- Relations between the State and the insurance industry and insurance legislation and supervision Discussion leaders: Dr. J. Bande (Chile) (25 October) Mr. A. Rajagopalan (India)(27 October)

Wednesday 29 October	- Insurance institutions and organizational aspects Discussion leader: Mr. A. Rajagopalan (India)
Friday 31 October (Morning session)	- Insurance statistics including applied mathematics and cybernetics Discussion leader: Prof. M. Grossmann (Switzerland) - Closing of the Seminar

Annex II

List of participants and Secretariat of the Seminar

A. NATIONAL PARTICIPANTS

Afghanistan

Mr. Mir Abdul Sami GHAFORI	Director of the Marine Insurance Section, Pashtany Tejaraty Bank

Argentina

Mr. Esteban José NEUMANN	Subgerente, Sector Traducciones Adscripto, Instituto Nacionale de Reaseguros

Bolivia

Mr. Carlos Alberto GOTTRET	Gerente General, Union Insurance Co. S.A.

Central African Republic

Mr. Victor BOUCHER	Chef du Service de Contrôle des Assurances

Ceylon

Mr. Ernst William JAYATILLEKE	Assistant Life Manager, Insurance Corporation of Ceylon

Chile

Mr. José Florencio GUZMAN CORREA	Subsecretario de Hacienda y Superintendente de Companías de Seguros
Mr. Alfredo CHAPARRO PALMA	Sub-Gerente Técnico, Caja Reaseguradora de Chile

Colombia

Mr. Teodoro DIEZ ARIAS	Vicepresidente Técnico, Asociacion Colombiana de Companías de Seguros

Costa Rica

Mr. Julio GOLCHER CASTRO	Delegado Directo de la Junta Directiva del Instituto Nacional de Seguros

Cyprus

Mr. Andreas N. HARTSIOTIS	Control Officer and Assistant Superintendent of Insurance, Ministry of Finance

Dahomey

Mrs. Colette TAGNON	Chargée du Contrôle des Assurances

Ecuador

Mr. Gustavo RODAS TORRES	Director del Instituto Nacional de Seguridad Social

Ethiopia

Mr. Assefa AYELE	Director General of Insurance Supervisory Office of the Imperial Ethiopian Government

Ghana

Mr. Kwesi ACQUAH-ROBERTSON	Commissioner of Insurance, Ministry of Finance

Guinea

Mr. Momory CAMARA	Directeur Général, Société Nationale d'Assurances

Honduras

Mr. Porfirio ZAVALA SANDOVAL	Superintendente de Bancos y de Seguros

Hungary

Mr. Thomas UZONYI	Manager of Marine Department, Allami Biztosito

Indonesia

Mr. Mohamed S. HASJIM	Director of Insurance, Ministry of Finance
Mr. R. SIDHARTA	Director, P.N. Reasuransi UMUM

Iran

Mr. Homayoun M. MACHAYEKHI	Director of Technical Affairs and Reinsurance, Bimeh Iran, Iran National Insurance Company

Iraq

Mr. M.K. JAWAD MOUSSA	Superintendent, State Insurance Organization

Israel

Mr. Jacob PICKER	Commissioner of Savings and Insurance, Ministry of Finance

Ivory Coast	
Mr. Becket V. MOBIOH	Directeur du Contrôle des Assurances, Ministère des Affaires Economiques et Financières
Kenya	
Mr. Maheshchandra S. GHEEWALA	Under-Secretary, Ministry of Finance
Kuwait	
Mr. Yousuf Shehab AL BAHAR	Chief of Insurance Section, Ministry of Commerce and Industry
Lebanon	
Mr. Akram SOUFI	Contrôleur des Sociétés d'Assurances au Ministère de l'Economie Nationale
Libya	
Mr. Salem M. BAKKOUSH	Chief of Insurance Section, Ministry of Economy and Trade
Madagascar	
Mr. Paul Emmanuel RAMANAMBE	Chef de la Division des Assurances, Ministère des Finances et du Commerce
Mali	
Mr. Adama DIARRA	Chef du Service des Assurances à la Direction Nationale du Trésor, des Banques et des Assurances
Mauritania	
Mr. Moctar TOURE	Chef du Service des Assurances, Ministère du Commerce, des Transports et du Tourisme
Mexico	
Mr. Pedro REINER VAMOS	Director Técnico, Comision Nacional de Seguros
Nepal	
Mr. Rama Prasad RAJBAHAK	Member of the Insurance Board, Government of Nepal
Nigeria	
Mrs. Rosaline Ajoke OMOTOSO	Registrar of Insurance, Commercial Law Division, Federal Ministry of Trade

Pakistan

Mr. Abdurahman Mohamed KHALFE	Controller of the Insurance Department of Insurance, Government of Pakistan

People's Republic of the Congo

Mr. Honoré-Gérard LOUBAYI	Chef du Service de Contrôle des Assurances

Peru

Mr. Carlos BECERRA CHANGANAQUI	Secretario General de la Superintendencia de Banca y Seguros

Philippines

Mrs. Conchita L. de BENITEZ	President, Insurance and Surety Association of the Philippines

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Mr. Kazimierz DARUL	Deputy Director, Reinsurance Department, "Warta" Insurance and Reinsurance Company

Romania

Mr. Petre CONSTANTIN	Chef du Département de Réassurance, "ADAS"

Sierra Leone

Mr. John Chrysostom HAMILTON	Administrative Officer, Ministry of Finance

Singapore

Mr. Francis D'COSTA	Insurance Commissioner, Ministry of Finance

Somalia

Mr. Omar Hagi OSMAN IBRAHIM	Official, C.A.S.S. (Social Insurance Agency)

Southern Yemen

Mr. Jamil Abdo SHAHER	Under-Secretary, Ministry of Finance

Spain

Mr. Ubaldo NIETO DE ALBA	Inspector del Consejo Técnico de Inspección de Seguros y Ahorros del Ministerio de Hacienda-Jefe de las secciones de Estadística y Aranceles del Fondo de Garantía Nacional

Sudan

Mr. Ahmed Mohamed El Amin OSMAN	Controller of Insurance, Ministry of Finance and Economics

Syria

Mr. Mamdouh RAHMOUN	President and General Manager, Syrian Insurance Company

Thailand

Mr. Chukiat PRAMOOLPOL	Insurance Commissioners, Ministry of Economic Affairs

Togo

Mr. Eugene Antoine ABAGLO	Directeur de Service de Contrôle des Assurances, Ministère des Finance

Tunisia

Mr. Taoufik DRISS	Chef de service à la Division de Contrôle des Assurances, Secrétariat d'Etat au plan et à l'économie nationale

Uganda

Mr. John Ssebaana KIZITO	Deputy General Manager and Secretary, National Insurance Corporation

United Arab Republic

Mr. Fouad A. ABDEL-RAHMAN	Superintendent of Insurance, Ministry of Economy and Foreign Trade

United Republic of Tanzania

Mr. Damien Sinda MASANDEKO	Fire and Assistant Manager, National Insurance Corporation of Tanzania

Uruguay

Mr. José Ramon SANCHEZ	Contador General, Banco de Seguros del Estado
Mr. Atilio ARRILAGA SIMPSON	Director, Banco de Seguros del Estado

Yugoslavia

Mr. Zoran RADOVIC	Lawyer-Adviser, "Yugoslavia" Insurance and Reinsurance Company

Zambia

Mr. Luke John MWANANSHIKU	Registrar of Insurance, Ministry of Development and Finance

B. OBSERVERS AND GUESTS

Conférence Internationale des Contrôles d'Assurances des Etats Africains, Français et Malgache (CICA)

Mr. Bernard KELLER	Secretary-General
Mr. Assoumane GUIRY	Deputy Secretary-General

Comité Européen des Assurances

Mr. Henri FAVRE	Secretary-General
Mr. Anthony ARMSTRONG	Deputy Secretary-General

General Arab Insurance Federation

Mr. Nabil FARES	Official of the Secretariat

C.V. Starr and Co. Inc. New York, USA

Mr. James McLANE TOMPKINS	Vice-President

C. LECTURERS

Mr. Jorge BANDE	Professor of Insurance, University of Santiago, Chile
Mr. Frantisek DOSTAL	Research Officer, Ceská Státní Pojistovna, Prague, Czechoslovakia
Mr. Jacques de FLORINIER	Administrateur Civil Hors Classe, Ministry of Economic Affairs and Finance, France
Mr. Marcel GROSSMANN	Professeur Extraordinaire, Institute of Economic and Social Sciences, Saint-Gall, Switzerland
Mr. Dan LANDIN	Manager of the Folksam International Insurance Company Limited, Stockholm, Sweden
Mr. Ananthachari RAJAGOPALAN	Officer of Special Duty and <u>ex officio</u> Joint Secretary Department of Revenue and Insurance, Ministry of Finance, India
Mr. Raymond A.J. PORTER	Underwriter of Lloyd's of London, England
Mr. Karel URBAN	Engineer, Research Officer, Ceská Státní Pojistovna, Prague, Czechoslovakia

D. SECRETARIAT

Designated by UNCTAD

Mr. Wladyslav R. MALINOWSKI Director, Division for Invisibles	Co-Director of the seminar
Mr. Anatoly KURKIN Economic Affairs Officer, Division for Invisibles	Alternate Co-Director
Mr. José RIPOLL Economic Affairs Officer, Division for Invisibles	Technical Secretary
Miss Janet BIRRELL Division for Invisibles	Secretary

Designated by the Government of Czechoslovakia

Dr. Jaroslav PROCHAZKA General Manager of the Ceská Státní Pojistovna	Co-Director and Chairman of the seminar
Mr. Jaroslav HAJEK Manager and Chief of the Reinsurance Department Ceská Státní Pojistovna	Liaison Officer
Mr. Vladimir CELOUD Chief of the Research Department Ceská Státní Pojistovna	Administration Officer
Mr. Frantisek KALENSKY Deputy Chief of the Research Department Ceska Státní Pojistovna	Documentation Officer