GC INSURANCE COMMITTEE: AN ANALYSIS OF THE ENVIRONMENT

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1 Insurance Industry in the new millennium

1.1 Globalisation

Insurance industry has through the ages been global. This has been the case especially in reinsurance. In direct insurance things have, however, not been like that: direct insurance has been rather local and in many cases been more or less of a co-operative nature. A characteristic feature of insurance industry has been the role of mutual companies. It can be said that traditional insurance companies, even if they are not mutual ones, have not been only business-oriented or competitive. On the other hand, they have been in many cases fora of risk coverage with rather limited objective of profit. One can also say that the role of owner and customer has been confused, which has not solely a negative meaning.

Globalisation in insurance means that also the role of direct insurance is changing. Cross-border mergers and acquisitions have been common in recent years. Additionally, international environment is changing so as to make it possible to sell insurance on a cross-border basis. This is evident, to name a few examples, not only in the developing EU directives but also in the creation of IASC accounting standards creating unifying pressures on insurance in dif-ferent countries. Broadly speaking the trend is towards treating insurance as one area of ordinary profit-making business. This trend has many important benefits for the customer but one can also doubt that some traditional features of insurance industry can be lost in this process.

1.2 Networking

Another important trend is that of networking. Whereas globalisation resulting from cross-border mergers and acquisitions leads mainly to arrangements where the company responsible for the cover is clear, in networking responsibility is more obscure. This results from the fact that in a networked context insurance cover is bundled with other elements in the final product and the consumer has less knowledge of who is really the insurer.

Maybe the deepest deliberation on networks is performed by Manuel Castels who has written a trilogy on the subject. Castels defines the concept of a network in the following way 1): ‘A network is a set of interconnected nodes…Networks are open structures, able to expand without limits, integrating new nodes as long as they are able to communicate within the network, namely as long as they share the same communication codes (for example, values or performance goals)…Networks are appropriate instruments for a capitalist economy based on innovation, globalization, and decentralized concentration; for work, workers, and firms based on flexibility, and adaptability; for a culture of endless deconstruction and reconstruction; for a policy geared towards the instant processing of new values and public moods; and for a social organization aiming at the supercession of space and the annihilation of time.’

It is clear that in a network structure also many actuarial problems are different from those of yesterday.

1.3 Technology

The new technology has made the emergence of a network society possible but it has also other important aspects.

Insurance as a product has a huge information content. This means that insurers have been massive users of up-to-date information technology for a long time. New innovations have a large impact on the future of product development. In this situation, on one hand, not only actuaries have much to gain in keeping up-to-date with the development. On the other hand, it will be demanding to maintain good understanding on what is happening in insurance with ever-accelerating evolution.

New technology makes it possible to gather substantially better information of the insured. This can have importance not only in life insurance (this aspect is dealt with later on in connection to genetics) but also in non-life insurance. For example vehicles could be equipped with sensors collecting information of how the vehicle is used. This information can then be used as the basis of in-creasingly detailed tariff structures.

From the consumers side this should mean better products. The down-side of this, however, is that the products will be harder to fully understand.

In addition to better, albeit maybe more difficult products technology may aid the consumer in other ways. Internet marketplaces may for the consumer create a new means of finding and choosing the right products for his needs. Also, through the Internet consumers may be better able to monitor the performance of their choices together with the solvency etc. of the insurer behind the products.

It is however clear that technology will intensify the need for consumer pro-tection which should be very close to the heart of the actuarial profession.

1.4 Efficient markets

The aspects mentioned above will bring the insurance markets closer to the ideal of efficient markets. One can say compactly that in efficient markets transactions occur between knowlegdeable and rational partners. This should mean that everything has a market value between two partners in an arms-length transaction.

In insurance there has of course existed a primary market between the customer and the direct insurer. Yet there has been only rather limited secondary or wholesale markets for insurance: this has been the case only in reinsurance and is emerging in the form of cat bonds.

The main problem in creating efficient secondary markets for insurance is that usually only the direct insurer has possibilities of knowing enough of the risk covered. The direct insurer has also, for example in property insurance, the possibility of advocating measures to prevent or reduce the risk insured. Be-cause of the lack of information it is hard to understand how really efficient secondary markets could be created and how uncontested market values could be determined. Secondary markets may remain limited to collective cases (as is the case usually in reinsurance) or to risks where more or less public information is readily available (as in ‘reinsuring’ climate-based risks with cat bonds).

If markets get more efficient also in the field of insurance, this will mean changes for the actuarial profession. Again the main issues in this area will be those connected to consumer protection and the solvency of insurers.

1.5 Investors role

At the beginning it was noted that there is a trend of making insurance in-creasingly similar to other profit-making business. The roles of owners of in-surance undertakings are becoming more and more clearly separated from the roles of customers. Customers are buying insurance cover with a price that makes the owners believe they can make a profit. It seems, however, to be the case that traditional mutual insurance companies will continue to have a role, albeit diminishing, also in the future. In addition, there will continue to be a need for different funds to provide cover for their members.

Yet the overall trend seems to be towards capitalist insurance companies. This is changing the environment. Traditionally insurance companies, that used to be based more or less on the ideal of mutual companies, have been rather strongly capitalised. The interest of a modern investor, however, is to have capital in efficient use. Therefore a modern capitalist insurance company is expected operate with a minimal capital base that is just enough to cover the risks assumed by the company. All excess capital should be credited to the owners as dividends. This means also that a closer examination is directed to how insurance liabilities are calculated and unnecessary risk buffers will be eliminated.

A smaller capital base for the insurance company means that it must become more cautious with its risks. The actuaries have responsibilities in addition to the owners in seeing that the policy-holders are protected well enough. With this change a lot is needed with respect to the competence of the actuary to honour the interests of both parties in a reasonable way.

One consequence of more business-oriented insurance may be the fact that in-surance companies have tried to transfer more and more of the risk to the policy-holders. There are of course other reasons for this trend: The individualisation that has occurred in developed economies may have contributed to the attitude that individuals do not need as much protection as what has been common previously. It is however clear that when less risk is carried by the insurance company, less solvency is needed and more can be credited to the owners.

1.6 Ageing societies

One important aspect of developed economies is that generally the population is ageing. This will mean different needs of insurance. In the process of ageing it is expected that the demand for savings products is increasing. After the ageing has taken place there will be a higher demand for products like long-term care.

One important aspect of the current demand for savings products is that there is a corresponding demand for investment vehicles. Later on with smaller gen-erations in the active cohorts there is a fear of disinvesting. This can mean that at the present we live in a structural bubble economy with the possibility of huge problems in the values of investment property in the future. It falls to the burden of the actuarial profession to make sure that insurance products are constructed so that it will be possible for the insurers to withstand their liabilities also in this possible scenario for the future.

The transition from the savings period to a higher demand for products for the elderly will mean changes. Elderly people will probably also in the future need higher consumer protection than population in general.

1.7 Genetics

Usually the insured has, compared to the insurer, at least to some degree better knowledge of his individual risks. In principle though it is thought that insurable risks are such that there is true uncertainty of the future, both from the insured person's and the insurer's side. Genetic testing may make it possible for the insured to have substantially better knowledge of his own risks without telling the insurer of the situation.

In insurance it is usually thought that an insurable event is such that the insured cannot control its occurrence. Additionally, according to the promises of genetics it may become possible to extend one's lifetime and avoid many diseases. Will life and pension insurance become obsolete if this happens? With better knowledge of his situation and with possibilities of extending one's life certain nowadays insurable risks may become uninsurable. And how do you define life and death in the future?

The advances in biotechnology predict a future where genetic testing will make it possible to base underwriting on better individual knowledge of the insured. Also, it can become possible even to manipulate genetically individuals and prevent new diseases. It may become possible to extend an individuals lifetime substantially by growing spare parts for the body. In principle this evolution is certainly to the best of everybody. It is however thought that these cures will be expensive compared to traditional ones and that there can be growing differences in mortality and morbidity of different socioeconomic groups.

With genetic cures there is a new area of liability insurance with potentially huge risks. Will the insurance industry be prepared to cover these risks?

Also, as stated above, underwriting can be based on genetics. This is already now creating ethical problems to the industry.

Not much can be said yet of this area but certainly its importance is hard to underestimate.

1.8 Environment

One of the greatest concerns of our civilisation is how it can cope with envi-ronmental issues. The direct responsibility of actuaries as a profession is rather limited in this area. A consequence of the widespread concern over environment is of course that there is an increasing demand for insurance products covering environmental liabilities. An important feature of such liabilities is that they can be huge even when expressed in the accounting units of the actuarial profession. This last aspect makes proper management of such products extremely important for our profession.

Environmental issues play also a role in forecasting longevity. Usually of greatest concern are forecasts of ever-increasing longevity (based partly on the advances in genetics). Environmental catastrophes can have a large impact to the other direction in this area.

1.9 Poor and rich countries

The last but certainly no the least aspect in this area is the large inequality among different countries that is maybe the most difficult question in the modern world: In addition to the developed countries there are lots of poor countries. It is hard to say whether actuaries have any specific responsibility to change the situation but still we must keep it in mind.

In developing countries insurance is not the most important area to be developed. Furthermore insurance supervision can not be thought of before there is insurance. In an networking world this creates problems.

2 Changing role of professions

Actuaries operate in a field where there are many professions involved. The purpose of the following is to outline the role of different professions in insur-ance industry. The professions touched are those of lawyers, auditors, supervi-sors, financial economists and actuaries even though it can be said that super-visors do not form a clearly defined profession like the others mentioned do.

2.1 General role of professions

First it is useful to try to define what is meant by a profession. The definitions of a profession fall more or less clearly to three categories: cognitive, normative and organisational 2): 'Cognitive elements include specialised knowledge and long training. Normative elements include such things as ethical standards and a commitment to provide a service for the public good. Organisational elements, such as a national body with disciplinary powers, support the cognitive and normative aspects.' For the purpose of this survey it seems that the normative aspect is the most fruitful.

Professions serve the need to have rational or even scientific knowledge. This knowledge is submitted to questioning and is in principle accessible to all in-dividuals.

2.2 Lawyers

Lawyers have an important role especially in the U.S. Lawyers of course work in different areas connected to insurance. Here it is best to think only of lawyers working in insurance companies.

The role of a lawyer is somewhat different in various cultures. At least in Europe it is thought that lawyers in the U.S. act always as solicitors to the benefit of the commissioner, i.e. in this case for the selfish interest of the insurance company. In Europe it is usually thought that lawyers have more responsibility to act for the public good.

The objective of lawyers in an insurance company is to see that the company obeys the law and honours its commitments, not only with respect to its clients but also to other parties where the company has entered into an agreement.

The lawyer should see that the decisions of the company are made so that they are legally sound and the process of making these decisions obeys the rules. Also, the lawyer should see that the agreements the company is entering into do not contain unwanted juridical risks.

Legislation is typically different from country to country and reflects the un-derlying culture and its values. This may be the main reason for the fact that there is rather limited globalisation within the profession of lawyers. Interna-tional arrangements like the EU may gradually intensify the globalisation of the profession.

A purpose of this document is to highlight the differences of different profes-sions. With this objective it can be said a bit rudely that lawyers at least tradi-tionally have less interest in the substance of the insurance business as such and more interest in things being handled formally in a correct way.

2.3 Auditors

In auditing there are two main areas with a different emphasis. One can namely look both at the roles of internal and external auditors. For the purpose of this document it is useful to concentrate on external auditing.

The purpose of external auditing is to have for the owners, supervisors and cli-ents and for the general public an independent view that the accounting of the company is carried out correctly. Even though auditors are responsible for many directions their main objective is increasingly to satisfy the needs of the owners. This is emphasised by the fact that they are usually chosen by the owners of the company.

In external auditing there is a trend towards increased standardisation. General standards are created nationally or internationally to set the rules as regards to how the correct accounts of an enterprise are produced. The auditing profession is strongly involved in the creation of these standards. On the other hand, however, an individual auditor has only limited freedom to allow for personal deliberation to correctly report the business of a company audited. The general rule is of course that substance is more important than form. Exceptions from the formal rules are however rare and exceptional treatment is often interpreted as showing that there is something wrong with the company.

Standardisation is important for the users of financial information: It is easier to make comparisons of the information given by different companies if this information is reported in a standardised manner and if it is produced in a standardised way. On the other hand, standardisation usually means that even important details can be misinterpreted as it is not possible to handle them strictly according to the standards.

International standards have meant that there has been a pressure towards globalisation in auditing profession. The most important pressure has maybe, however, come from the fact that capital markets are increasingly global and multinational companies have a need for globally acceptable and reliable ac-counts. The auditing profession is probably one of the most global professions in the sense that the large auditing firms have subsidiaries almost everywhere and auditors obey internationally stipulated rules.

An important issue is the mutual relation between auditors and actuaries. Auditors often have difficulty in trusting the figures of actuaries as there is the suspicion of actuarial manipulation. Actuaries, on the other hand, may think that auditors are blind for the substance of insurance and only try to force the financial information to forms according to some superficial standard.

Also the responsibilities of auditors and actuaries towards supervisors are not always clear. There is a fear of a grey area between the responsibilities of these professions where nobody is willing to take responsibility.

2.4 Supervisors

Supervisors do not, as stated above, form a clearly defined profession. They consist of specialists in different fields, namely actuaries, lawyers, auditors etc. Their role however makes it possible to treat them as a profession in this context.

The main role of supervisors is to protect the policy-holders. They have however and important additional role in protecting the interests of the state especially as the receiver of taxes.

Supervision falls broadly speaking into two categories: setting normative rules for the industry and supervising afterwards that everything is properly done. There are in fact two disciplines of supervising having emphasis on different strategies. There are however practically no cases where supervision is just one or the other.

Setting normative rules is in principle easy and requires only modest resources. Its problem is the same as that mentioned with respect to auditors, i.e. it possibly does not reflect fully the risks inherent in the business of different companies.

The other possibility of having more quality-based supervision is certainly more precise. On the other hand it requires more resources than the former alternative. Actuaries have an important role especially in aiding supervision according to this other regime. Actuaries have a clear responsibility in producing information that makes quality-based supervision possible.

2.5 Financial economists

A profession of increasing importance to the insurance industry is that of fi-nancial economists. This trend is not only a consequence of the growing role of bancassurance but also insurers as large investors need knowledge of that area.

In banking sector insurance risks are less well-known. On the other hand in many cases a bank becomes the leading branch of a bancassurance company. There is a fear that financial economists, who usually have a prominent role in a bank, are also thought to have sufficient understanding in the insurance branch.

It is clear that actuaries are better in traditional insurance risks and are still not proficient enough in financial risks. On the other hand financial economists have little knowledge of the insurance risks. Both the professions have much to gain from mutual co-operation and much to lose if they end up in a situation of mutual antagonism where one profession sets rules in an area where it does not have enough competence.

Maybe the most important issue with respect to this area is the solvency of an insurance undertaking. Banks are proud of their BIS rules and it could be thought that the insurance sector uses out-dated methods in their solvency as-sesments. Actuaries need to be active in improving the international solvency standards to avoid a situation where rules not suitable for the insurance industry are adopted from the banking sector.

2.6 Actuaries

Actuaries are proud to understand the core of insurance, i.e. risk. They are strongly involved in the pricing of insurance and in accounting the liabilities resulting from the insurance business. They are also heavily involved in matching the assets with liabilities so as to earn best investment earnings to the invested assets with a suitable risk with respect to the liabilities.

With respect to a company also actuaries can be divided into at least two cate-gories: internal company actuaries and external consulting actuaries. In many ways their role is not much different from each other in these two categories.

Actuaries have responsibilities to many directions (insured person or policy-holder in case the latter is different from the insured, insurance company or pension fund etc., the supervisor, the general public etc.) but maybe the most important is the responsibility to policy-holders in order to make sure that the cover sold to clients can really be honoured. There has however been pressures to contain the role of actuaries to a more limited scope as other professions have tried to assure that they can fulfil some traditionally actuarial responsibilities in a better and more efficient way. In some cases this can be for the good as it can make it possible for the actuary to concentrate on aspects where he has the best understanding. If, however, this would mean that there is nobody taking full responsibility of the risk aspect inherent in insurance, this certainly is not in the general interest.

It has been customary, at least among actuaries but maybe also more generally, to think that actuaries are somehow impartial and above the selfish interests of their different commissioners. An important question of the future is whether actuaries can retain this position. Another question is of course to analyse to what extent retaining this position is worthwhile and whether retaining it will contribute to restricting actuaries to calculation assistants of minor general importance.

The problem with the actuarial profession may be that it is better in analysing the situation and not that good in producing information that is understandable and felt reliable.

The actuarial profession is also a global profession but not to such an extent as that of auditors. This may reflect the feeling that the main responsibility of actuaries is for the policy-holders who are by majority still local. Actuaries have international professional standards which are not as detailed as those of auditors. Also actuaries have stipulated rules of mutual recognition.

3 Actuaries in the new millennium

3.1 Globally local profession

With the megatrends of globalisation and networking the insurance industry will get harder to define. Actuaries must retain the position where they can take care of the proper management of insurance risk. This means that there must be closer collaboration among actuaries from different countries to make sure that also insurance business across borders will remain on a healthy basis. An important aspect that should be kept in mind is that in a changing world it is not enough to deal with insurance undertakings and therefore emphasis should be on insurance in general as reflected in the IASC insurance project.

One of the main tasks of actuaries in the future is to establish the profession as a really global profession. This should not, however, mean that there are strict international standards for everybody to obey everywhere. Instead, actuaries should have strict educational standards and quality-based codes of practice where the main emphasis is to protect the policy-holders. As there is very much local aspects in insurance also in the long run, actuaries should be ‘globally local’ with global general rules but local expertise.

Being globally local has the handicap that global and local interests get easily mixed in the positions of the actuarial profession. Therefore, actuaries should be able to make a distinction between general actuarial problems and problems related to different markets. For example, solvency issues are of a general in-terest, whereas problems with respect to taxation are mainly local issues. In-ternational actuarial positions could emphasise on the general actuarial issues while still mentioning the identified local problems.

3.2 Transparent actuarial information

With a bias towards protecting the policy-holder there can be a conflict of in-terest when actuaries are also serving the auditors and the investors. This needs not be the case. Actuaries should try to describe the liabilities arising from the insurance policies and what are the capital needs of this business. Of course this should be done while maintaining the transparency of the information. The best service to auditors and investors is therefore the production of as transparent information as possible to make understanding the business and its future prospects as easy as possible. This means also that actuaries must recognise that the industry has moved from the former ‘co-operative’ bias to more business-oriented basis.

The information produced by the actuaries needs improving. Actuaries should concentrate on developing information that is generally thought to be reliable and as understandable as possible.

3.3 Raising the profile of actuaries

With improved information actuaries should raise the profile of the profession. An important thing is that in all situations actuaries must be guaranteed the possibility to give the true actuarial view of matters: The actuary should be protected from liability to his employer and to other parties as long as he is obeying the actuarial principles.

3.4 Responsibilities of actuaries with respect to other professions

The responsibilities of different professions should be clarified to avoid grey areas among the roles of actuaries, auditors, lawyers and supervisors.

In insurance accounting actuaries were caught more or less unprepared. It is important to analyse areas of interest to actuaries where international stan-dardisation is possible/probable and start early enough the process of producing an international view of how things should be handled. This common view should then be promoted among other professions to serve as a starting point of possible future harmonisation.

3.5 Main concerns of actuaries: solvency, changes in the industry and ethics of insurance

On a more detailed basis a main concern for actuaries should be the solvency of insurance undertakings. Also here actuaries should have substance over form. The main areas where this is currently important are the process of modernising the EU solvency standards and the Insurance Accounting Project of the IASC. In both these instances actuaries have not much to fear of different aspects (like the fair value) as long as solvency is treated in such a way that insurance business is done on a sufficiently prudent basis.

An important detail in current discussion is the question of fair values. Ac-cording to the principle of producing transparent information actuaries can easily advocate the concept of fair values. However, actuaries should stress that the concept is difficult in insurance and try to stress that the special characteristics of insurance business should be duly taken into account in its definition.

In the long run there seems to be possibilities of new risks in different markets: investment markets, genetics, environmental issues etc. Actuaries should maintain the competence not only to handle these risks from the insurance point of view but also to participate in finding answers to ethical etc. questions involved in these.

1) Manuel Castels, The Rise of The Network Society, Blackwell, 1996, pages 470-471
2) Professions in Society, C.S.Bellis, B.A.J. 6, II, 317-364 (2000)