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THE ACTUARY'S DEVELOPING ROLE IN REGULATING INSURANCE WORLDWIDE

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MR. SALAZAR: Christopher Daykin is from the United Kingdom. He has had a distinguished career for more than 20 years advising on pension funds, making population projections for both U.K. and nonU.K. social security systems, and supervising insurance companies. Since 1989 he has been in the Government Actuary's Department, and he is currently the Government Actuary. Mr. Daykin is also the president-elect of the Institute of Actuaries.

MR. CHRISTOPHER DAVID DAYKIN: As has just been said, I'm from the U.K., and I am the Government Actuary, of which there is only one. This may be confusing, because I believe in the United States there are many government actuaries. They're all the actuaries who work in government employment. In the U.K., one Government Actuary heads the government department that is responsible for giving actuarial advice to other government departments on a commercial basis and to other governments and public bodies around the world. I employ over 40 actuaries in my department, and we perform actuarial services in many countries.

During the last four or five years, I've had the privilege and opportunity of speaking to about 25 national actuarial associations around the world. My topics have included insurance regulation and the role of the actuary, the role of the appointed actuary, as we have in the U.K., and generally speaking, the way in which actuaries are participating in the process of supervision. In the U.K. we call it supervision. This is to distinguish it from what you do in the U.S., where you regulate insurance companies. We don't regulate them, we supervise them. That reflects a long national history.

The regulation (or supervision) of insurance began in the middle of the 19th century in New York and Massachusetts. There was a lot of concern in the U.K. about these issues, particularly because some major insolvencies of life insurance companies occurred in the 1860s. There was, however, strong political opposition to what was seen to be going on in the U.S. In the U.K., people were scared stiff that we would introduce some form of regulation that would restrict commercial decision-making and activities. In the U.K., the 1870 Life Assurance Act was founded on the principle that companies should be allowed to do exactly what they liked, but that they should be forced to make public sufficient information about their financial position to enable the members of the public to make informed choices about whether to use them as their insurers. This was called the Freedom with Publicity concept, and it has remained part of the philosophy of the supervision of insurance in the U.K. ever since. At the heart of the concept was that actuaries would report on the financial strength of the life insurance company. That was built into the 1870 Act. There was to be no prior approval of premiums or products at all and no regulation regarding solvency margins or anything like that. It was simply a requirement to have a report from an actuary on the assets and liabilities of the business.

This represents one point on a wide spectrum of regulatory involvement, which we now see around the world. The prior approval of products and premiums, which was

part of the original Massachusetts and New York systems, was espoused very strongly by Germany and later by Japan and a number of other countries. Spain has a systematic notification process, in which you have to tell the supervisor everything that you're doing. You announce that you're going to issue a new product. You tell the supervisor what the rates are going to be, and that information is filed in the base-ment. Then there's the system of getting the actuary to take responsibility for assessing the liabilities. I guess that's more akin to what has been the case in the U.S. in recent years. At the next level the actuary can give an opinion on the adequacy of the assets to meet the liabilities, which means bringing together the assets and liabilities. Following that there is the appointed-actuary system, which we have in the U.K. Finally, the most developed involvement of the actuary is in future financial-condition reporting, as is now coming in Canada and in Australia.

We see the appointed actuary system as having a number of key aspects. First, the appointment must be a continuous one, so that there's somebody there at all times to take responsibility. Second, it covers both assets and liabilities. Third, it involves an element of continual financial monitoring of the business. Then there's the issue of the control of the financial condition of the company being under an individual's professional responsibility. Finally, there is a direct responsibility, or hotline of some type, to the regulator or supervisor.

In the U.K. we've had the appointed/actuary system in that particular form for about 20 years. As I mentioned, we have more than 100 years of experience of having an actuary responsible for signing the adequacy of the assets to meet the liabilities. The appointed/actuary system introduced a concept of regulation by professional standards of practice, because the requirement in the U.K. insurance law is simply to have an appointed actuary, who must be a Fellow of the Institute of Actuaries or a Fellow of the Faculty of Actuaries. The consequence has been that the actuarial profession has issued a standard of practice, which we call a guidance note. Because an appointed actuary has to be a member of one of our two professional bodies, he or she must comply with a guidance note which the profession deems to be mandatory, and therefore it has the effect of law. There is now a requirement in the law that the actuary shall certify that the standard of practice, the guidance note, has been complied with. It's not just a question of the actuary complying, there are also requirements on the board, which are laid down in the actuarial standard of practice, such as the board being required to give direct access to the appointed actuary and to receive a report from the appointed actuary on certain aspects.

In the European Union, of which the U.K. is a sometimes not-so-willing member, the process of insurance regulation has taken rather different courses in different countries. I've already alluded to the German system, which involved a high level of prior approval and control and very little professional responsibility for actuaries. But we've been going through a process of development in Europe in the last 20 years or so, whereby we have moved towards a regime in which insurance companies can write business throughout the European Union. The first step was freedom of establishment, whereby all the countries agreed to have similar solvency/margin requirements. That enabled any company that was regulated in one country to set up a branch in another country. The regulators there were not to be concerned about solvency of the whole company, but only to check on the adequacy of the assets in that branch to cover the liabilities. We then moved towards freedom of services, which was the

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opportunity to write business across borders. Most recently, we have moved to the so-called single market in insurance, which was brought in by the framework directives a couple of years ago. They're just coming into force this year. Under the framework directives, it is now forbidden to have any system of prior approval of products and premium rates. It was perhaps surprising that this should have been agreed upon by all the other countries, particularly by Germany, Italy, and Portugal, which had well-entrenched systems involving prior approval. However, the focus of supervision is now moving from prior approval to post hoc control based on solvency margins and technical reserves.

The actuarial principles of valuation for life business are explicitly set out under the provisions of the directives. Those principles were agreed upon by the Groupe Consultatif, which is an umbrella organization for the 15 actuarial associations in the European Union. There is no detailed prescription within this, no rates of interest or mortality tables or anything like that. These are simply principles of valuation of life insurance business. They were recommended to the European Commission by the Groupe Consultatif and were accepted by the member states and incorporated in the directives. They now have to be implemented in the individual countries. Within the Groupe Consultatif, therefore, we've created very good actuarial cooperation between actuaries who have had, in the past, rather different traditions. Indeed, we are now required, under European legislation, to mutually recognize each other as having equivalent qualifications. So we have gone through the process of negotiating, in the Groupe Consultatif, a mutual recognition agreement, whereby any actuary who wishes to practice in another country of the Community has to become a member of the local association and subject himself or herself to the standards of practice and code of conduct of the local association. We are working towards bringing together the actuarial profession in Europe, and building up those actuarial associations which historically have had a weaker role, because the whole nature of supervision of insurance in Europe is moving towards increased responsibility for actuaries and new statutory roles.

Germany is perhaps the best example of transition in this respect, because the historic system of regulation involved prior approval of every life product. The premium rates and the dividend scales for policyholders were built into the original approval mechanism. Essentially, all that the actuary then had to do was to carry out the calculations. Partly for that reason, the German word for actuary, which means insurance mathematician, doesn't have the same connotation as actuary in most other languages, which involve a good deal of professional judgment and responsibility. The Germans have responded positively to this process, and the actuaries have set up a new organization. In fact, they've introduced the word *actuary* into the German language, as the word for actuaries in the professional sense that we're talking about, and have created a new association, which is above the level of the existing association. The existing association becomes a subset of it. The new association will have the power to develop standards of practice and to define the qualifications necessary to be an actuary, particularly because the German legislation is now introducing the concept of the responsible actuary. I think they found it difficult to translate appointed actuary into German, so they've called it responsible actuary. That has very much the same idea as the appointed actuary—giving to the actuary in the company the responsibility of determining premium rates and managing the financial condition of the company. It is a major transition which is going to have to be managed very

carefully, both by the regulator and by the individuals involved in the actuarial profession.

In some ways, Italy had already moved in this direction, although it also had a prior-approval system. It has a system of state licensing of actuaries, with an examination partly run by the Italian actuarial association but also under government control. It has also had, for a number of years, a requirement for an actuary to opine on the reserves of nonlife companies, and it is likely to introduce an appointed actuary system for life insurance in the not-too-distant future. France has been less enthusiastic about the appointed actuary idea. It moved before Germany to remove prior/approval requirements. But it has the uniquely French system of individuals within the regulatory body, who are actuaries or quasi-actuaries, performing a very strong visiting and auditing role in the companies. They call it supervision "on site." It means that these people spend a lot of time, days or even weeks, in each company, and go through what's happening in the company in a great deal of detail. They see that as being the strength of their system. You could say that the person in question is similar to an appointed actuary, but he or she is a government-imposed appointed actuary sent in from the outside.

If we move away from Europe to look at what has been happening in one or two other countries around the world, Canada has been leading the world in recent years in terms of the supervision and regulation of insurance. It introduced an appointed-actuary system of sorts some years ago, but strengthened it in 1992 with a formal new law introducing appointed actuaries for life and property/casualty companies. It introduced risk-based capital (RBC) requirements, and most notably, the profession in Canada has introduced a requirement for the appointed actuary to carry out cash-flow modeling, under the name of dynamic solvency testing (DST). That pushes the involvement of the actuary a stage further, in terms of opining on the future financial condition of the company. The appointed actuaries in the U.K. have to monitor the financial condition all the time, and to do that, they have to model carefully what's going on within the company. But they aren't required to look five years ahead, whereas in Canada, the appointed actuary has to do DST for a number of different scenarios, looking five years into the future.

There have been some parallel developments in the U.S., but the U.S. is a little bit behind the rest of the world in this respect. First was some shifting of the responsibility of the actuary from just being on the liabilities side of the balance sheet to giving an opinion on asset adequacy. Cash-flow testing has begun to come on the scene, particularly through New York regulation 126. And, of course, RBC has surfaced in a big way in the United States in the last few years, reflecting a need that was observed in Europe 20 years ago when we tried to create the common market. You need to have some supervisory mechanism for intervention in a company. It doesn't actually matter too much what the level of RBC is, but you must have levels at which it is clearly defined that the supervisor can intervene. There has been, as many of you will know, a good deal of discussion as to whether there should be a more developed appointed-actuary system, and whether it is possible, in the environment in the United States, for the actuary to have the degree of financial responsibility and control which the appointed actuary has in the U.K. and Canada. There are particular worries about the whistle-blowing role, in particular, which is part of the appointed/actuary system; whereby the appointed actuary has a hotline to the

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regulator that can be picked up if he or she is concerned that the management of the company is not running things in an appropriate way.

And, of course, there has been a big debate here on the issue of how much, if any, regulation should be at a national level or whether it should remain state controlled.

On the property & casualty (P&C) side, or general insurance as we tend to call it in Europe, the impact of the Dingell report seems to have been quite significant. There has been steady development in the last two or three years towards enforcing the responsibility of the actuary in the certification of the loss reserves and possibly moving into new areas. RBC on the P&C side took a little more time to develop and is still not entirely satisfactory. Interestingly, one of the alternative proposals that came up was that the RBC should be done using cash-flow modeling, rather than based on a formula. That is probably the only way of dealing satisfactorily with mismatching risk.

The other end of the world is characterized by Japan, which borrowed its system of supervision from Germany about a hundred years ago. It has a strong system of prior approval and control, but in the last few years it has been looking at this very carefully, and it has decided that there must be deregulation of the product and premium-setting process. Agreement has also been reached to move towards having an appointed actuary role. Now, as was discussed at the session on appointed actuaries around the world, there are some difficulties in the concept of the appointed actuary being introduced in Asian countries. Hong Kong and Singapore already have appointed/actuary systems, and so does Malaysia. Japan is facing up to this, and the Institute of Actuaries of Japan has been trying to draft codes of conduct and standards of practice. Japan is facing a difficulty of how to square up the idea that the appointed actuary might have a divided loyalty between the company management and the regulator. Company loyalty is stronger in Japan than in almost any other country in the world. The idea that an appointed actuary, an employee of the company, might go and talk to the regulator in some way, to blow the whistle, is something which it is very difficult to come to terms with. The Institute of Actuaries of Japan has also put in hand an examination review, and the examinations are going to be strengthened, particularly in relation to finance and investment, because of the new appointed/actuary role.

Another area of the world which has been of much concern to me in the last four years is *Central and Eastern Europe*. I've been involved both as a representative of the Institute of Actuaries, and also through the Government Actuary's Department, in helping to develop the insurance regulation systems in Poland, Hungary, the Czech Republic, and Russia. Massive change has been taking place because of the dismantling of the old central planning system. New insurance laws have been devised, and different countries have decided to go at different speeds. The Hungarians were the first in the field because they had already started to diversify their insurance market in the mid-1980s. But they introduced insurance laws based on the practice in Austria and Germany, which they are now beginning to regret, because the Germans have had to change to be in line with the European Union, and Hungary is going to have to follow suit. Poland, the Czech Republic, and Bulgaria have moved straightaway towards the system that is now coming into force in the rest of Europe, with no prior approval, some sort of role for an actuary, and a good deal of freedom being given to

insurance companies under the umbrella of an RBC requirement, which is generally going to match the European Community (EC) solvency requirement.

A major problem in Eastern Europe is that it doesn't have actuaries, and it hasn't had actuaries in the last 40 or 50 years, so the introduction of a new insurance law which requires each company to have an actuary is difficult to manage. This has been a process which has been developing, particularly in Poland and Hungary, where the Polish Society of Actuaries and the Hungarian Actuarial Society have been trying to work with the regulatory authorities to define what is meant by an actuary, to encourage the development of a new generation of actuaries, and to assist in the process of helping a new supervisory and regulatory system to get off the ground. The Institute and the Faculty of Actuaries have been very active in helping these countries to put in place an education process for actuaries.

In Russia, which offers the biggest challenge in this respect, the Society of Actuaries, the Institute of Actuaries and the Faculty of Actuaries are cooperating in a combined effort to introduce new education arrangements. The Society is working with Moscow's State University to set in place initial training for people at the university level, and the Institute and Faculty are working on courses for people who are already employed in the 3,000 or so insurance companies in Russia and the new pension funds and other institutions, where they urgently need actuarial advice, perhaps more so than anywhere. That cooperation, I hope, is also going to extend to activities in China, where the new insurance law is well on the way to completion. Those of you from the Society of Actuaries are well aware of the program that has been running at Nankai University in Tianjin, with Society backing, since 1988. In Beijing, the Institute of Actuaries established a course last year, with help from a commercial company that is providing sponsorship. I hope that we can work together, as we are doing in Russia, to help China to create its own actuarial profession in that vast country.

What are the issues for the future in this field? It seems to me that everywhere in the world, actuaries are being asked to carry more responsibility in the area of supervision and regulation of insurance companies. That's very good for the actuarial profession, I believe, although there will be some who feel that it is threatening, because of the additional responsibilities being imposed on actuaries and the potential that gives for litigation and accountability. There are big, new challenges facing the actuarial associations in almost all the countries that I've mentioned. One of the biggest challenges is improving the role of actuaries in the field of financial risk. That's why it is particularly appropriate that we're here in Orlando under the banner of AFIR (actuarial approach for financial risks). It is essential, it seems to me, that actuaries throughout the world should lay great emphasis on training in the field of investment, strategic asset management, asset/liability modeling, and aspects which will help to bring together the two sides of the balance sheet. The appointed-actuary system seems to be gradually taking over throughout the world. I think we need to strengthen it in all countries where it is coming in and help the countries that wish to introduce such a system to come to terms with the issues involved. DST has been pioneered by the Canadians, and it will, in my view, be one of the features of insurance regulation during the next decade. In the U.K., we are now actively considering, within the actuarial profession, whether to make it part of our standard of practice that the actuary should carry out DST on the company.

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Financial-condition reporting, which is really the completion of the DST process, is the future issue for actuaries. Are we going to be willing to opine, not just on a static position, as at the balance sheet date, but on the strength of the company and its ability and resilience to withstand the uncertain future? That is a challenge to which I think we need to rise, because nobody else is going to be able to help companies to understand their future financial condition. The regulators can rely on us as professionals to approach this problem in a sensible and professional way. It enables the regulator to let the companies get on with running their business in a proper commercial fashion. They will be in touch with the actuary to make sure that the actuary is keeping things on the right track and that the board of directors is receiving the appropriate advice to enable the business to be managed soundly. This is not just on the life side, where actuaries have a long tradition of involvement in many countries, but on the property/casualty side where we are still fighting to have that degree of recognition but where the role is one which needs actuaries and where, I think, actuaries will increasingly be asked to take it on.

