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The Luxembourg Court (Gregorio Robles).

Solvency II: ORSA (Joaquín Melgarejo).

Manuel Toharia: "Science popularization as a way

of life".

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editorial

The academic Gregorio Robles, once again appears in these pages to continue the job of explaining the "European labyrinth". This time, he will be outlining the structure and operation of the Court of Justice of the European Union or the "Luxembourg Court", the most notable feature of which is its monopoly on the interpretation of Community law, which means that it has the last word on the scope definition of any European provision. His article will be of great interest to citizens of the Old Continent and will also serve as a legal reference for other communities.

Solvency II is proving to be an endless subject of analysis. From these pages, an attempt will be made to trace its development up to its entry into force, bringing the views of people authorised by their participation in the process or by their profound knowledge of the environment in which that development is taking place. State Insurance Inspector Joaquín Melgarejo discusses at length the qualitative aspects of Pillar II and the Own Risk and Solvency Assessment or "ORSA". The author thinks that the ORSA will make possible the assessment of the future viability of insurance companies by considering their own business strategies, but also points out that its calculation methodology has not yet been specified. This constitutes an additional challenge on the tortuous road to regulation of the insurance sector.

A passion for science and war against ignorance is how Professor Manuel Toharia's career could be described. Since he began working in the audiovisual media in the 1970s, he has ceaselessly pursued the job of communicating, popularising and promoting research. Today, as Science Director of Valencia's "City of Arts and Sciences Complex", he encourages us to pursue the whole culture of citizenship and calls for it to be promoted by public authorities and private initiative alike.

Pilar González de Frutos is a benchmark in the Spanish and European insurance markets. In the first few issues of our publication she dealt with us from the Directorate-General for Insurance. Now she does so as President of UNESPA, the Spanish association for companies of the insurance and reinsurance sector. We focus on her thoughts about pension systems and other related aspects. With the clarity typical of someone who continues to work passionately to develop the Spanish, European and Latin American insurance sectors, she speaks optimistically about advancing and consolidating a sustainable future for our society. Insurance is a fundamental part of this development.

What is the Court of Justice of the European Union for?

Gregorio Robles

Professor in Philosophy of Law at the University of the Balearic Islands Member of the Royal Academy of Moral and Political Sciences





Court of Justice of the European Union or the Luxembourg Court

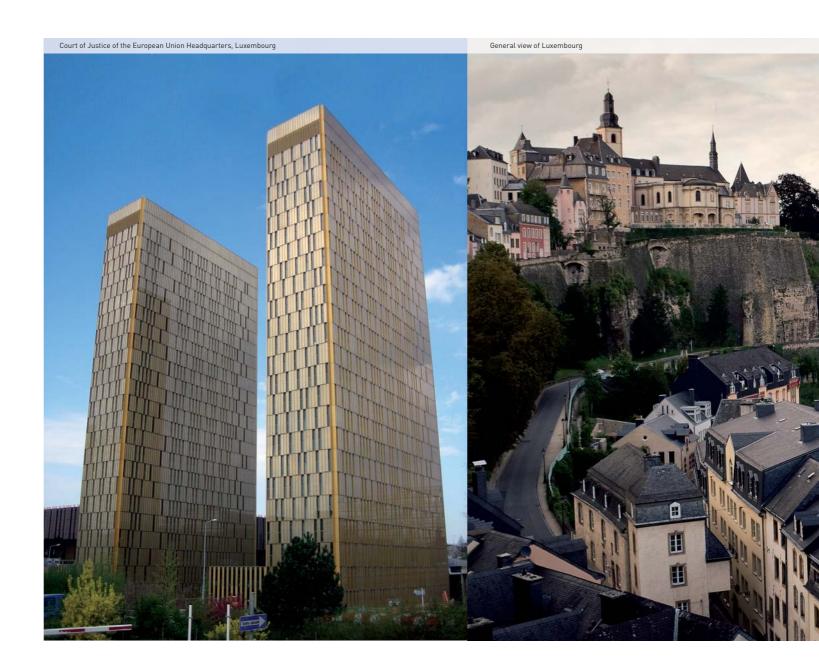
However much the media may talk all the time about the European Union and its institutions, the average citizen sees them as something remote, as a large and rather strange bureaucratic structure hiding behind a fog of barely comprehensible acronyms. Politicians have too much verbiage when criticising their opponents and not enough education, which is something we all need in order to find our way around this highly complex world of ours.

I say this because I am sure that you will have heard of the Court of Justice of the European Union sometime –who has not? But do you really know what it is for? You have to admit that, even unconsciously, you have come to believe that it cannot be particularly useful—I would even venture to say that you do not exactly recall which city it is based in. Is it Brussels? Strasburg? Frankfurt? Or Luxembourg?

Well, the Court of Justice of the European Union is in fact based in Luxembourg, that rather misty city which is the capital of that small country of the same name. That is why the Court of Justice is also known as the Luxembourg Court – even though that is not its official name.

Strasbourg Court or Court of Human Rights

It is very important to remember this fact, as people tend to confuse it with the Court in Strasbourg, a city which, as you well know, is the capital of Alsace, a region which today belongs to France but was formerly part of The Court of Justice of the European Union is based in Luxembourg, which is why it is usually called the Luxembourg Court – even though that is not its official name



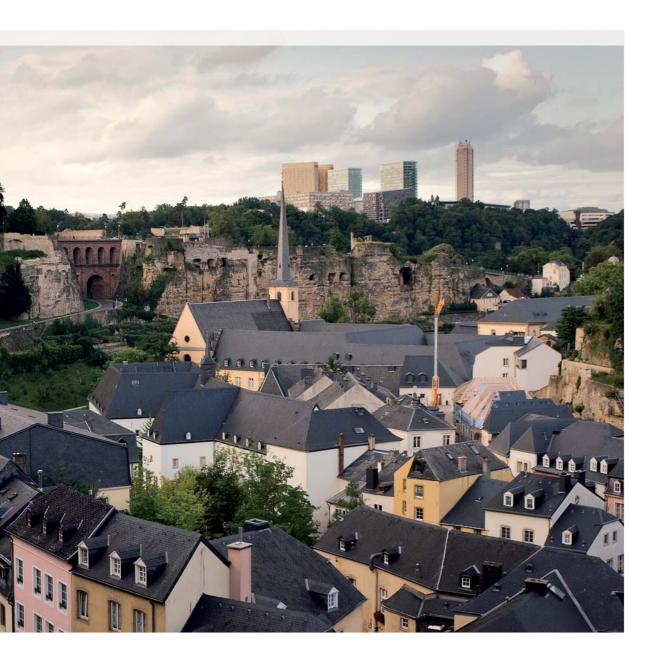
It is currently made up of 27 judges, who are appointed by mutual agreement by the governments of the states for a period of six years and are assisted in their tasks by eight "Advocates-General"

Germany. The Strasbourg Court is an institution not of the EU but of the Council of Europe, which is an international organisation currently made up of no less than 47 European countries. The Strasbourg Court, also known as the Court of Human Rights, forms part of the Council of Europe (not to be confused with the Council of the European Union). Its task is to apply the Rome Convention of 1950 to litigants (i.e. those having recourse to the Court demanding justice) after plaintiffs have exhausted all legal remedies within their own country. That is what happened in the case of a well-known Spanish businessman who went to court to defend his rights before the Spanish courts and, once all legal avenues in Spain had been exhausted, went to the

Strasbourg Court, which agreed with him. The trouble is that, right now the judgments of this Court are not enforceable, even though they do have moral relevance or, to use a term which is very much in vogue in some countries, they constitute "soft law". I do not intend to talk about this Court here, even though it was necessary to make this footnote to clearly distinguish it from the Luxembourg Court.

How is the Court of Justice of the European Union structured?

The Court of Justice of the EU is currently made up of 27 judges, one for each Member



State. These judges are appointed by mutual agreement by the governments of the states for a period of six years. They are assisted in their tasks by eight "Advocates-General" whose basic job is to submit studies -on whatever matters the Court may require- as opinions in which, after analysis of the facts and fundamental points of law, the solution to the case is proposed. These studies are known as "submissions of the Advocate-General" and are published with the name of the Advocate-General who has made them. However, they are not binding on the Court, although in practice the Court does usually follow the recommendations they contain. The Advocates-General form part of the Court of Justice's organisational structure.

The Court's basic tasks are as follows:

- 1.To check that the acts of the Community institutions (Council, Commission) are legally admissible, which is why provision is made for various remedies, particularly the so-called rescissory action, the purpose of which is to annul any Community actions which overstep the mark as regards what Community law allows.
- 2.To check that the Member States meet their obligations. To this end, various procedural remedies are provided for, outstanding among which is action for the failure of States to fulfil their obligations.

3.To ensure the uniform application and interpretation of Community law throughout the European Union. This function is of great importance. The Court is said to have a "monopoly on the interpretation" of Community law, which means that it has the last word on any question that arises relating to how a specific provision is to be interpreted. It is also competent to declare invalid any Community provisions which are incompatible with or contradictory to the Treaties.

4.To go more deeply into the development of rules of Community law, covering possible "gaps", resolving any contradictions, and clarifying rules which the Treaties assume but do not formulate explicitly.

As you can see, these are extensive and very important tasks. Hence the enormous importance of the Court of Justice, which has been rightly called the "legal engine" of European integration.

The Court has a "monopoly on the interpretation" of Community law when any question arises relating to how a specific provision is to be interpreted

Implications for European citizens

From the point of view of private individuals like you and me, and also as far as companies are concerned, it has to be borne in mind that the vast majority of matters that can affect us are conducted before national judges – in our case before Spanish judges. In other words, it is the national judges who form the ordinary jurisdiction in the application of European law. This makes sense: imagine what it would be like if the Luxembourg Court had to resolve all the questions of individuals and companies.

Spanish judges apply Community law because it is also Spanish law. This is what is meant when we say that European law is integrated into national law. In effect, it becomes part of national law.

So, if you or your company have a lawsuit in Spain in which rules of Community law have a bearing, the Spanish judge will be the one charged with applying theses rules to the case. However, it may be that the Spanish judge has some doubt as to how to interpret



a word, a concept or a phrase in the European legal provision that he has to apply. It may also happen that he has doubts as to whether a Spanish law is compatible or not with the requirements of European law. In order to resolve these doubts, provision is made for a "mechanism of dialogue" between the Spanish judge (or judge of any other of the 27 nationalities) and the Luxembourg Court.

This "mechanism of dialogue" consists of the following: the national judge, faced with the perplexing situation in which he finds himself through not knowing exactly what scope to give to a Community provision,



interrupts the case he is hearing and contacts the European Court, setting out the questions he wishes in order to resolve the doubts he has. Once the Court of Justice has replied, he will be able to continue with the case and apply the Community rules free of the doubts he had

The Court's judgments are published periodically in the Reports of Cases before the Court and are also accessible via the Internet. The classic publication format includes the report of the Judge-Rapporteur (who is the judge making a special study of the matter) and the submissions of the Advocate-

General, as well as, of course, the text of the judgment.

This text is generally organised into three parts:

- ▶ First, a summary of the facts giving rise to the litigation is given, specifying the type of appeal made by the plaintiff, detailing his or her arguments and the arguments of the defendant. This start to the judgment is usually summarising and descriptive.
- ▶ Second, each judgment sets out the reasons used by the Court in the analysis of the case, taking account of the rules in force under Community law and interpreting them in the light of the peculiarities of the particular case and the economic, political and social context in which it arises. This second part is geared to justifying the judgment and also to persuading the community (legal and non-legal) that the judgment in question is essentially correct.
- ► Finally, we have the ruling or decision resolving the lawsuit and also specifying who has to pay the costs of the case. The judgment is the logical consequence of all the previous reasonings.

As part of the judgment, the judges sign their names and indicate the date on which the judgment was given a public hearing. Dissenting votes are not recorded, the Court's decision being collective. The internal discussions belong to the secrecy of deliberations, which the judges have a legal duty to maintain.

Through the "mechanism of dialogue", a national judge who does not know exactly what scope to give to a Community provision during legal proceedings can interrupt them and contact the European Court

The reality is much more complex

In this article, I have confined myself to setting out the most basic features of the Luxembourg Court. However, the current reality is much more complex. Not only because a Court of First Instance has operated since 1989, but above all because the Treaty of Lisbon of 13 December 2007 (entry into force: 1 December 2009) introduced profound changes in the organisation of the European jurisdictional system.

Solvency II: Own risk and Solvency assessment

Joaquín Melgarejo **Bachelor of Law** State Insurance Inspector (on extended leave)

MM.EE

viability

ORSA

insurance

framework

SOLVENCY II

regulatory

internal

economic

resources

business

directive system

10 / trébol 58 / 2011

provisions group quantifiable assessme

Excursus

We have spent many years talking about Solvency II, but generally in the same terms, and almost always referring to the calculation of own resources that an insurance company or group must have under the new regulatory framework. Whatever the model chosen, the standard formula or an internal model, everyone agrees that this is an unprecedented challenge in the history of public insurance law and for supervision.

It has been said that Pillar II is the real challenge and innovation in the new prudential regulations

This is certainly right, but there are perhaps equally important aspects in Solvency II about which little has been written and which represent another challenge for the sector – namely the qualitative aspects of Pillar II.

It has been said that Pillar II is the real challenge and innovation in the new prudential regulations, inasmuch as it includes the need for exhaustive internal knowledge of what one wants to do -business strategy and governance-, how one wants to do it -human and material resources implemented- and the capacity to check for deviations from the initial plan- control, auditing and the other functions to which the Directive refers.

One of its basic tools is the "Own Risk and Solvency Assessment", known colloquially by the acronym "ORSA".

This article aims to give some outlines of a subject on which there is comparatively much less information, despite the fact that its implementation by insurers and groups is subject to the same deadlines as the rest of the provisions of Directive 2009/138/EC of 25 November.



Through its ORSA,
a company will be
asked to measure
the "slack" in its
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compared with its
total risk, thereby
allowing its overall
solvency in both the
short and long term
to be assessed

The insurance company's viability in the long term

If the purpose of the standard formula or an internal model is to calculate the capital that an insurance company or group of insurance companies should have in a year, seen in relation to current unexpected risks and any class of them which might arise in the next 12 months, the Solvency II Directive also refers to the company's future viability, requiring the company to carry out a prospective exercise with respect to its future viability.

Through its ORSA, a company will be asked to measure the "slack" in its own resources compared with its total risk, thereby allowing its overall solvency in both the short and long term to be assessed.

In short, this is a prospective exercise based amongst other things on a company's risk tolerance and appetite, its strategy and drawnup business plan, the macro scenario and the point in the cycle at which the assessment is carried out, the system of governance implemented, the quality of the own resources held, the possibility of adding new equity to the company should this be necessary, and the geographic and territorial diversification of its activity, amongst other factors.

Is the ORSA a novel feature of the Directive?

The form of the ORSA is not new; it exists in other financial sectors, including the insurance sector, having been included as part of best practice in the insurance sector and in the regulations of various countries, including Member States of the European Union.

Indeed, under the regulatory framework known as Basel II, the banking sector requires credit institutions to carry out a similar self-assessment exercise in the short and medium term¹.



an exercise which is mandatory and recurrent over time.

How does the Solvency II Directive expect the ORSA to develop?

According to the literal wording of the Solvency II Directive, as a minimum this self-assessment exercise has to take account of overall solvency needs, taking into account the specific risk profile of the insurer carrying out the exercise, its risk tolerance approved by the Board of Directors, its business strategy and the extent to which the undertaking's risk profile diverges from the assumptions on which the solvency capital requirement is based.

From the formal point of view, the self-assessment exercise must be put into practice using protocols, procedures or routines which make it possible to carry out the desired calculations and the checks and tests entrusted to them.

From the material point of view, there are three main aspects at least on which the ORSA focuses, namely: risks, commitments and own resources.

The ORSA must first of all capture all the risks that happen to the insurance undertaking, taking into account that, as the Directive says, "some risks may only be properly addressed through governance requirements rather than through the quantitative requirements reflected in the Solvency Capital Requirement. An effective system of governance is therefore essential for the adequate management of the insurance undertaking and for the regulatory system".

Special consideration is given to verifying that the technical provisions are perfectly calculated, reflecting the insurer's commitments over time. Consequently, the actuarial function is an input for the ORSA, as are the results of the internal control and audit.

The capital and own resources structure responds to the approach that "the limits applicable to own-fund items should only apply to determine the solvency standing of insurance

From the material point of view, there are three main aspects at least on which the ORSA focuses, namely: risks, commitments and own resources

On the other hand, and within the context of insurance, the International Association of Insurance Supervisors (IAIS) has published a specific paper on the ORSA² and, within the specific area of positive supervisory rules, this form has already been regulated by, amongst others, the NAIC³ in the USA and, closer to home, the UK's Financial Services Authority (FSA), which has developed the Internal Capital Assessment (ICA).

In the Solvency II Directive there are only two articles that refer to the ORSA: Article 45 for individual undertakings and Article 246 relating to groups. Being something that cannot be delegated in the European Commission, it does not appear in the first draft developing level II rules, and in level III there is a paper which has yet to be approved by the European Insurance and Occupational Pensions Authority, EIOPA. As it does not appear in the proposed Omnibus II Directive as a binding matter at level III, the Member States will have to carry out a true regulatory exercise, since this is

¹ See Banco de España, Guía práctica de Autoevaluación del Capital de las entidades de crédito (Practical guide to capital self-assessment for credit institutions) in the version of 18 March 2009.

² Standard No. 2.2.6 of October 2008: "Standard on enterprise risk management for capital adequacy and solvency purposes".

³ NAIC (National Association of Insurance Commissioners): "ORSA for the Solvency Modernization Initiative", 6 August 2010.

The ORSA differs from the calculation of the regulatory capital in that it aims to determine the economic capital requirements, that is to say the own resources that must be contributed in order to pursue a particular business strategy

and reinsurance undertakings, and should not further restrict the freedom of those undertakings with respect to their internal capital management".

Is an ORSA necessary?

The practical value of the ORSA is to integrate this self-assessment exercise into the company commercial strategy and day-to-day business. Consequently, the output of the assessment will make it possible to confirm or, where appropriate, adapt the company's strategy in relation to aspects like product design, rating, capital needs (for the whole of the undertaking, by lines of business and also by product), asset allocation and structure, and so on.

Carried out with the necessary granularity, this should make it possible to check, for example, which lines of business are profitable, what rating policy or pricing ought to be adopted, what lines of distribution are advisable, and all of this to this extent to which, besides the traditional parameter of profit, other elements are incorporated into the decision, such as the risk which each policy or decision concentrates and the capital they consume.

What is the difference between the role to be developed by the ORSA and that reserved for internal models?

The ORSA differs from the calculation of the regulatory capital, which represents the standard formula in which, through the exercise of self-assessment, the aim is to determine the economic capital requirements, that is to say the own resources that must be allocated in order to pursue a particular business strategy.

Differentiation from the standard formula is therefore easy, even if that is not so much the case with respect to the internal models implemented by undertakings. In the end, everything is going to depend on what the incorporated internal risk model is like, and on the deadlines for its implementation; however, there are some differences that can be proposed with respect to internal models that are used ex-



clusively to calculate the regulatory capital or solvency capital requirement (SCR) – Pillar I.

Some of the differences that can be noted are:

- 1. The reference time horizon, since the ORSA targets viability in both the short and long term, whereas the SCR looks for adequacy over a 12-month period.
- 2. Whereas the ORSA aims to get closer to all the risks of the insurance company, being these quantifiable or not, the SCR, according to Article 101, aims to include all quantifiable risks.
- 3. There would be other elements differentiating both processes under the assumption that the SCR seeks to calculate the regula-



tory capital while the ORSA focuses on calculating the economic capital:

- a. The use of certain accounting criteria from the prudential perspective which have no reason to be used from a business perspective; for example, from the point of view of Solvency II, goodwill has no value even though it can have value from the economic perspective.
- b.The Directive allows certain assets to be calculated, and from the management perspective there is no reason for the same criterion to be established (recital 50 of the Directive).
- c. The Directive allows certain restrictions to be introduced into the calculation of as-

- sets, which may be applied in some Member States and not in others (recital 49 of the Directive).
- d.Prudential approach to the risk mitigation elements allowed in the Directive and applied differently in risk management (so-called residual risks).
- e. The methods used to quantify risks; effectively, where there is an internal model, the overall solvency assessment the purpose of the ORSA verifies amongst other things the goodness of the own model, which is why it does not appear that the same methods are used to assess risks in one case and in another.
- f. The management of own funds; while the SCR simply compares requirements with assets almost automatically, the ORSA appears to have to think about the suitability of own funds for the company's strategy, including the possibility of bringing in additional funds should the need arise.

By way of conclusion

If QIS 5 (Quantitative Impact Study 5), as the realisation of the standard formula, has in the sector's opinion proved to be a complicated exercise, the ORSA will be no less complex if it aims to compare the true risk profile of a company that has used standard parameters to quantify its risk profile.

There is still some way to go before we know how the ORSA will come into force in Spanish legislation, and it is desirable for the Member States to reach agreement at least on some guidelines on how to approach an exercise, the results of which must be notified to the Supervisor.

I think that the best way to end these brief notes is by doing so in the same way that this article began – if Pillar I represents an enormous challenge with its respective opportunities, the self-assessment exercise known as the ORSA looks like being no less of a challenge.



interview with Manuel Toharia

Science Director of City of Arts and Sciences and Director of the Prince Felipe Museum of Science Valencia - Spain



Born in Madrid on 3 August, 1944, he studied at the French Lycée in Madrid where he gained both French and Spanish qualifications (baccalauréat Mathématiques Élémentaires, and completion of a pre-university science course). He went on to study Physical Sciences at the *Universidad Complutense* of Madrid, specialising in Astrophysics and Cosmology. From 1969 to 1975 he worked as a career civil servant for the National Weather Service (Spanish Air Ministry).

As a professional communicator, since 1970 his activities have focused on journalism and popular science in the press, on radio, on television and in interactive museums. From 1970 to 1979 he was the science editor of the Madrid daily, *Informaciones*. From 1980 he directed and presented various cultural and scientific programmes for *Televisión Española* (Spanish TV), where he had worked as a science writer and weatherman since 1971. He was also a science writer for the Spanish newspaper *El País* from 1980-1981. He was involved in the launch of the *Muy Interesante* magazine in 1981, and in 1983 he established the scientific journal *Conocer*, which he ran until 1988.

Since then, he has worked on the production of popular science videos and television programmes and on the conceptual design of exhibitions and interactive museums devoted to science, technology and the environment. Since 1980 he has also had frequent spots on various radio stations, talking about topical scientific subjects, and he regularly collaborates with newspapers and magazines. He is a regular lecturer throughout Spain, giving around a hundred talks each year. He also teaches science journalism on the Master's course in journalism at the Universidad Autónoma of Madrid (UAM-El País School of Journalism) and at the Spanish Energy Institute. He has been the Director of the ACCIONA Interactive Science Museum (1995-1996) in Madrid, and of the "La Caixa" Foundation's Science Museum at Alcobendas (Madrid) (1997-1999). From September 1999 he was Director of the Prince Felipe Science Museum in Valencia, and is currently the Science Director of Valencia's "City of Arts and Sciences".

He is a member of the Spanish Association of Scientific Communication (and the Spanish representative at the European Union of Science Journalists' Asso-

"Science is nothing more than the product of human curiosity"

It is difficult to summarise 41 years of professional life. My persistent dedication to communication has been the key theme, focused almost always on the fields of Science, Technology and the Environment. Doubtlessly, my previous scientific training was a help to me here, at least at the beginning...

ciations, EUSJA), a member of the Board of Directors of ECSITE (the European Network of Science Centres and Museums), Honorary President of the Saint-Exupéry Franco-Spanish Cultural Association, founding member of the Spanish Energy Club, the Spanish Waste Club, the Madrid Mycological Society and the Spanish Meteorological Association, founding member of the Spanish Academy of Television Sciences and Arts, and holds an Honorary Master's Degree from the School of Computer Science.

He has written 32 books popularising science, the latest being *Meteorología popular* [Popular meteorology] (1988, Editorial El Observatorio), *El libro de las setas* [The book of mushrooms] (1989, Alianza), *Tiempo y clima* [Weather and climate] (1990, Salvat), *El clima* [The climate] (1993, Orbis), *El desierto invade España* [The desert is invading Spain] (1994, Instituto de Estudios Económicos), *Astrología: ¿ciencia o creencia?* [Astrology: science or belief?] (1995), and *Micromegas: del dinosaurio amaestrado al agujero de ozono* [Micromegas: from the trained dinosaur to the hole in the ozone layer] (1996), both published by McGraw-Hill, *Medio ambiente, alerta verde* [Environment, green

alert] (1997, Acento Editorial, co-authored by Francisco Tapia), *El colesterol* [Cholesterol] (1998, Acento Editorial), *El futuro que viene* [The future that's coming] (1999) and *Hijos de las estrellas* [Children of the stars] (2000), both in *Temas de Hoy,* and recently *El clima, calentamiento global y futuro del planeta* [The climate, global warming and the future of the planet], published by Editorial Debate (2006, Random House Mondadori), *El mito de la inmortalidad* [The myth of immortality], co-authored by Bernat Soria, published by Editorial Espejo de Tinta (2007), and *Confieso que he comido* (mis memorias metabólicas), [I confess that I have eaten (my metabolic memories)] published by Editorial Le pourquoi pas (2008).

He has been awarded the Science Journalism Prize by the Spanish Council for Scientific Research (CSIC), the Prize for Popular Science Videos by *Casa de las Ciencias* (House of Sciences) in La Coruña, the SIMO Prize for Popular Science on Television, the Energy Saving Promotion Prize (Ministry of Industry), the Medal of Honour for Promoting Invention (García Cabrerizo Foundation) and the 2004 Prisma Prize for a life-long career popularising science, by the La Coruña City Council.



Science is nothing
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is that things are
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what advantages
can be had from a
better knowledge
of everything that
surrounds us

Was it tenacity or luck that enabled a physicist to become a television weather forecaster, as well as the best known and most recognized man of the day?

Meteorology is the physics of the air, so moving into that field was a logical consequence –just one more option at a time when I was looking for work. And explaining the weather on television called for communication skills, at least back then–I began in 1969; in my case, those skills were probably inborn.

How did you make the leap into journalism, leading to your role as a popularizer of science?

It was a more or less inevitable progression. At the same time as my television work, while I was still a meteorologist with the Air Ministry, I started to work for "Diario Informaciones"

de Madrid", on a new type of supplement about science and technology, so I was dealing with subjects related to meteorology and general science every day. My daily contacts with television and the press (and very soon with radio as well) gave me an inside knowledge of journalism, as a good "apprentice" for many years. Many other stages in my career were to follow: I directed programs for TVE (Spanish Television); I was the science editor for "El País", a daily newspaper; I founded and created "CONOCER" magazine; I produced video and TV programs on science; I was a scriptwriter for interactive exhibitions, and director of several museums... From 1976 onwards. I took extended leave from meteorology, and I have never returned to it. I can look back on 41 years of continuous involvement in these areas, not to mention the 36 books that I have written on these subjects.



If we go beyond academic definitions, how would you describe science? Does it always have to be viewed from a dynamic perspective?

Science is nothing more than the product of human curiosity, which makes us constantly ask ourselves why -and how- it is that things are as they are, how they work, and what advantages can be had from a better knowledge of everything that surrounds us... Animals and plants do not ask questions themselves; they simply do what their genetic message tells them to, in a predetermined way and with very few variations. Thanks to curiosity, human beings have developed a culture that is both instrumental -technology- and intellectual science and art; it has given us some amazing advantages over our environment, even including remarkable ways of extending our life span, which was not very long to start with.

Why has Spain shunned its scientists, or at least failed to encourage them?

This has not always been the case, although the mystic, artistic and literary spirit has generally been far more predominant in this country than pragmatic, scientific and technical thinking. This is the opposite of what happens in other countries, especially the Anglo-Saxon countries in more recent times. Several centuries ago, we did not know how to take advantage of the Toledo School of Translators and the heritage bestowed upon us by the rich culture of the Arabs. After that, to some extent, we missed out on the technological revolution that started with the steam engine in England and continued in other countries. And then, in the twentieth century, apart from the two World Wars, our own Civil War did not do much to help the development of science in Spain... The mystic, artistic and literary spirit has generally been far more predominant in this country than pragmatic, scientific and technical thinking It is no bad thing for us to export our best brains, even if they do not return later on; what we are really doing is to educate good scientists and technologists so that other countries can reap the benefits Maybe we missed a marvelous opportunity in the nineteenth century, when science began to flourish in an exciting way – in Valencia for instance, where Santiago Ramón y Cajal launched out on his brilliant career, and in other major universities too. But then, the twentieth century stifled virtually all of this impetus: the best scientists started their careers here, but went on to achieve prominence elsewhere. That applies not only to "our" 1959 Nobel lau-

reate Severo Ochoa, but also to many others who may not have won a Nobel prize, but who took the best of Spanish science to other countries, mainly the United States.

In spite of its shortcomings, science in Spain is enjoying something of a heyday at present, due to the huge influence of North America's scientific leadership and the initiatives under way in Europe. But what must we still do to



General view of the City of Arts and Sciences in Valencia

make advances in every respect, quantitative as well as qualitative?

It is becoming more and more difficult to talk about "Spanish" science, or "French" science, or indeed science in any single country. In an extraordinary way, science has become international over the last few decades. The major achievements and the most outstanding publications rarely –in fact, never– originate from one individual, but from many. Up to a hundred

scientists from numerous countries were involved in publishing the sequences for certain human genes, and each of them contributed something to this work. Is the work that many Spanish scientists are doing in the USA (or elsewhere) Spanish science, or American science? The financial and material resources come from America, of course, but what the scientists learn and what they perhaps bring back with them when they return (if they return), and what

It is a curious phenomenon that the longer we live, and the better we live, the fewer risks we are prepared to accept



Valencia's City of the Arts and Sciences is a project that is unique in the world, and it certainly is the first of its kind. Some questions about the particular museum that you direct: How was it conceived? What was its mission? How will it develop in the future? And what legacy does it hope to leave? The philosophy of the City of the Arts and Sciences is enshrined in its own name: one single culture that integrates the sciences and the arts. Starting from there, each element safeguards one aspect of this integral culture that we aim to preserve: opera, ballet and chamber music in the Palace of the Arts, the interactive popularization of science and the debate about Science, Technology and the Environment in the Museum of Science; the popularization of natural (mainly aguatic) science at the Oceanographic Park; popularization of the arts, documentary material, exploration and innovation in the audiovisual sphere at the Hemispheric Theater; and the integration of modern sculpture into the greened urban environment in the Umbracle Park, All of these elements are accommodated in impressive architectural settings and structures that are the work of Calatrava, the Valencian architect – he truly is a prophet in his own country. The content is continuously renewed, with the result that about five million people visit the complex each year. I do not aspire to leave any particular legacy; as the scientific director of the complex, and formerly as director of the museum, my idea has always been the same: to convey interesting and curious aspects of the world of culture to the general public, with the aim of helping them to have a better understanding of the world in which they live, to enjoy more of its many benefits, and to find more efficient ways of resolving the equally numerous difficulties that it presents.

www.cac.es

As risk is an inevitable element of progress, insurance aims to offer a way to redistribute risk and compensate losses

they basically contribute to human knowledge – all of that is universal. Not just American... For scientists who were born and educated in Spain, the advances that they make on foreign soil entail better contact with the international research environment. And better integration into the productive environment, that is to say essentially, the world of private entrepreneurship; something that is far from desirable in Spain.

Budgets allocated to scientific programs and to research, development and innovation have been



described as inadequate. The lack of opportunities for young researchers is prompting the large-scale export of brainpower that Spain is experiencing. How can this situation be changed? When you use the word "inadequate", some explanation is called for, because science does not need to depend solely on public-sector budgets

When you use the word "inadequate", some explanation is called for, because science does not need to depend solely on public-sector budgets and R+D policies. Private enterprise in Spain has been, and generally still is, very reluctant to undertake research (or applied research) on its own behalf, or in cooperation with public scientific institutions. After all, our figures for public investment in this field are lower than those of the countries we would like to resemble, and when it comes to private research, they are actually far lower. On the other hand, it is no bad thing for us to export our best brains, even if they do not return later on; what we are really doing is to educate good scientists and technologists so that other countries can reap the benefits. In terms of the progress of science as such, it does not make much difference; but when we start talking about the economic aspects, we are clearly confronted with a bad deal. Changing the situation is not easy; maybe Spain trains more high-level scientists that its scientific, technological and entrepreneurial structure can absorb. And this inevitably leads to the exodus of brainpower - even more so in a world where international exchanges between such experts are increasingly encouraged.

What role do scientists have in society, and who is responsible for popularizing science and scientific issues?

Scientists are the foot-soldiers of a worldwide human mission that, throughout history, has enabled us to attain ever higher levels of wellbeing and longevity. That is their role; it is neverending, and it becomes more difficult to comprehend as time goes on; and it is a role that the rest of the human race does not understand very well. This is what makes popularization so vastly important; the aim must be to build some bridges – building all of them would be an impossible task-between what science knows, and what society knows. Making science popular is no easy matter; in some ways, it is a sort of journalistic assignment, rather like that of a correspondent sent to a foreign country which in this case is the realm of science. To achieve this, it is necessary to have an adequate understanding of both worlds: the world of the street, and the world of the researchers. Popularization is a sort of ongoing informal education for every citizen, and it has to be financed by the public authorities in the same way as formal or controlled education. Also, it must be undertaken by those who know how to do it well, regardless of whether they were originally scientists, journalists or teachers.

It is clear to me that a large section of the general public is highly interested in scientific developments and research results, which form the basis for our present and future wellbeing. Does society's support for its scientists lead to higher financial contributions?

What you say about support from a good proportion of the population is definitely true, at least if you trust the answers that the Spanish give in surveys. But I very much doubt whether these answers reflect the deeper thinking of people who respond in this way. They answer like this "to make a good impression" – just as happened with the documentaries shown on the *TVE 2* television channel, which were the most interesting programs in the entire schedule, but nobody watched them. This support always becomes much more qualified when it is converted into money. And that is why, at the end of the day, it is not unusual for the politicians to allocate low funding to science.

How do you perceive risks? In terms of popularizing science, what could be done about risks and their consequences? What is your view of insurance?

It is a curious phenomenon that the longer we live, and the better we live, the fewer risks we are prepared to accept. We become more and more afraid that bad things could befall us, to the point where we even invent them for ourselves. However, it is obvious that there is no such thing as an activity that entails zero risk; the ecologists have sometimes propounded this myth, for example by demanding that certain industrial activities should not present any risk at all. So, knowing that risk is an inevitable and also necessary element of progress, it seems obvious that we should be ready to do everything we can to minimize it and, on the other hand, that we should try to compensate for damage or losses if they occur -which is always possible- by means of some sort of system that redistributes risk and provides compensation. Such as the insurance sector, for example, not only in the context of science and the advances that it achieves, but also at all other levels of everyday life.

Mr. Manuel Toharia's observation

I would just like to recall that there would be less bamboozling if there were not so many unwitting victims ready to be bamboozled. And the way to reduce the number of unwitting victims is simply to provide a little more integrated culture for the general public culture that must be favoured and fostered by the public authorities as well as by private initiatives. We shall all emerge as winners if we fight this battle in the right way.





interview with **Pilar González de Frutos**

President of UNESPA business association and Vice-President of the CEOE Madrid - Spain



Pilar González de Frutos got a Degree in Law from *Universidad Autónoma* of Madrid in 1979. In 1980, after passing the relevant competitive examination for the Inspectorate of the Directorate-General for Insurance and Pension Funds, she worked for that body supervising insurance companies. In 1983 she was appointed Deputy Technical Operations Manager at the *Consorcio de Compensación de Seguros* (Insurance Compensation Pool). In 1988 she was appointed Operations Manager of the *Consorcio*, a position she held until January 1997. She was then appointed General-Director of Insurance, a position she held until November 2002. In June 2003 she was appointed President of the UNESPA business association. Since 2006 she has also been Vice-President of the Spanish Federation of Business Organisations, CEOE¹.

"The outlook for life insurance is very positive"

In the medium to long term, the latest reform of Spain's public pension system to be approved provides an opportunity for life insurance as a tool for harnessing savings to expand its role of supplementing State pensions. Almost half of all insurance premiums collected in Spain are in respect of life insurance, which also amasses managed assets of some 150 billion euros, not counting the assets of pension and mutual funds.

What is the Spanish Union of Insurance and Reinsurance Companies, UNESPA², and who does it represent?

UNESPA is an association, set up in 1977 by companies working in the field of insurance and reinsurance, with the basic mission of managing, representing and defending the interests of Spain's insurance sector. At least one organisation of this kind is to be found in every market. Some markets with special features may even have more than one. UNESPA is also involved in supranational partnerships. It belongs to FIDES³, the Inter-American Federation of Insurance Companies, and in Europe we are members of the European Insurance Committee (CEA4). Still in its early stages, but with a global vocation, a permanent network representing the interests of the sector, INIA, is now also being established, which may be seen as a counterpart to the IAIS (International Association of Insurance Supervisors). At the moment, the International Network of Insurance Associations, INIA, is not formal but just a network of contacts on the Internet. However, its importance lies in the fact that some US and Canadian partnership organisations are not in FIDES. A network via the Internet was therefore necessary. It will not have a formal structure for the time being, but this allows us to distribute the roles and interests that we take to the forums we hold with IAIS insurance supervisors.

What are UNESPA's priorities in all kinds of areas and specifically in life insurance? Solvency II is presumably one of them?

Solvency II takes up a lot of our working time and requires considerable effort and human and material resources. We are at quite a critical point, because all the requirements are The basic mission of UNESPA is managing, representing and defending the interests of Spain's insurance sector

¹ Confederación Española de Organizaciones Empresariales.

² Unión Española de Entidades Aseguradoras y Reaseguradoras.

³ Federación Interamericana de Empresas de Seguros.

⁴ Comité Européen des Assurances.



Social care benefits
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going to be further specified in the level 2 measures. We have to continue to work very hard on this project, but we cannot devote ourselves to just one single issue. The intense regulatory pressure we are under means that we have to spread our attention among important projects like the amendment of the Private Insurance Regulation and Supervision Act (LOSSP5) in order to incorporate the Directive, with specific deadlines. Reform of our Insurance Contract Act and our legal system for assessing personal injury is also under way. We are continuing to implement international accounting standards. Some time ago, the European Commission held a public hearing in relation to possible changes to the Insurance Mediation Directive. There are also some other initiatives, such as the work being done to achieve better regulation of quarantee funds. And finally, the Green Paper on pensions in Europe is still open.

What is happening in relation to pensions?

In Europe, EU institutions have no competence where pensions are concerned. The competencies lie with the governments. The Commission has, however, launched a Green Paper making recommendations. This was no surprise to anyone, as it explains that we are witnessing a demographic trend towards very high longevity throughout Europe, and that must be considered. And even more so at times of difficulties for public finances like those we are going through today. We have to think that social care benefits –not just pensions– should adapt to changes in

the systems in order to support their maintenance and funding. There are no big surprises. Its conclusions are those we expected. The Green Paper highlights the differences between those countries that have made reforms and those that are lagging behind, together with an outline of complementary systems. But it cannot go further because, under the Treaty of Lisbon, the Commission has no further competencies.

How do you think all this will end?

Given the way that changes are speeding up, I think we will have more of Europe. We have a single currency, the Euro, and it is impossible to keep going without a single economic policy. The larger countries are in better condition financially and, moreover, are creditors of the remaining countries, are betting on more of Europe. I am convinced that, over time, we will end up having a single economic policy that will provide support to a single currency. I would not be surprised if they ended up issuing Eurobonds and, little by little, this will also generate social convergence. I have always placed great trust in Europe.

In the context of the Spanish insurance sector, what does life insurance represent and what is it expected to represent eventually?

Right now, premiums from the Spanish insurance sector are divided almost equally -50% each- between life insurance and non-life insurance. This is not the most common

⁵ Ley de Ordenación y Supervisión de los Seguros Privados.

business distribution model in mature markets, where life insurance business often accounts for a larger share. The reason is that there are probably two development dynamics in the insurance industry which differ for many reasons, be they sociological, historical, cultural, or any other. But rather than justifying why our growth in life insurance has been less than we see in other markets around us, it seems to me much more interesting to analyse how much we can continue to grow in the future. Consequently, the outlook here is very positive.

The future of life insurance in Spain looks promising, but were you not somewhat disappointed with the last reform of the public pension system? The government continues to consider insurance in a complementary role. Were not insurers aspiring to something more?

The Spanish insurance sector has never wanted to manage pensions that are substitutes. We want to manage supplementary pensions. The second pillar of social security is complementary, not a replacement. Spanish insurers have never asked for a pension model in which the Pillar 1 pension is not public. We will never go there. We are therefore expectant about the public pensions reform that is under way, but we do not want to be the managers of Pillar 1 pensions. We want to manage and have an increasingly predominant role in Pillars 2 and 3 which, under the Spanish Constitution, are currently supplementary pensions. According to experts, the old argument that there is only one pension system in Spain, and it is pay-asyou-go (unfunded), is now closed. Today, we all know that the system is broader in that it has a fully-funded system attached to the unfunded public one.

The reform of our public pensions system is derived, firstly, from a report approved by Parliament and originating from the Toledo Pact. This attaches some importance to private systems and calls for them to be stimulated. That document, which had the unanimous support of the Chamber, was followed by another one, signed by the government and representatives of social and economic players that also attached special importance to the need to boost Pillar 2 systems, which in our country are underdeveloped, and the need for creating earmarked savings through Pillar 3. These are two quite important bases for continuing with our

demands, and we hope that they will provide a strong impetus to help develop the supplementary pension industry, for the management of which insurance is essential.

Why has this issue already been resolved in many other countries? In France, for example, most workers have a supplementary pension.

There are a number of reasons for this. One is historical, because the larger European countries were in total ruin after two World Wars -basically, after World War II. Countries did not have the resources available to meet their citizens' needs, and so there was a very immediate response from the insurance industry. That was a basis on which important decisions have continued to be taken to boost the industry- and not just important ones but permanent ones. Support has been constant and continues to be. There are no pension funds in France. There is insurance managed by insurers and mutual companies that have special recognition and support, but subject to certain conditions. For example, for a long time pension insurance was identified as a product with special status in return for directing investments to certain assets and certain sectors. We are dealing with a policy change, at European level, with regard to our financial requirements, and we have to make certain adaptations. Governments are also willing to help in these cases. That is one of the soundest reasons justifying the supplementary pensions model and the role of insurance companies in their management.

It is assumed that the amounts of public pensions will be limited or tend to be reduced, making it necessary to save with supplementary instruments. What would you highlight about pension plans and life insurance? Will there be a clear winner?

No, there does not have to be. They are two different products, and in the insurance industry, we arrange one or the other without preference. The great thing is precisely that they are different, because this provides more opportunities when it comes to decision-making by savers. The advantage for pension schemes and funds is in the pure financial accumulation. Life insurance responds to different customer profiles – usually those looking for an investment with guarantees, not only for maintaining their capital but also with a certain rate of return. It also has the flexibility to adapt to

The old argument that there is only one pension system in Spain, and it is pay-as-you-go (unfunded), is now closed because the system is broader in that it has a fully-funded system attached to the unfunded public one

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the different phases of the risk profile without the need to take decisions on changes in management.

What has been the contribution of the new life insurances designed to amass savings, such as the Insured Retirement Plans (IRPs⁶), Company Pension Schemes (CPSs⁷) or Systematic Savings Plans (SSPs⁸), all with different tax advantages?

In a time of global financial crisis in which customers' perception of risk is more immediate, the growth figures for this type of product in the last two years have been considerable, which shows that they have served as a refuge for the savings of many people who wanted to escape from certain volatility in the financial markets.

In short, has the crisis given insurance an opportunity to show that, as well as being anticyclical, it is a solvent sector with profitable products?

Clearly it has. But the thing is that we still have the challenge of getting savers to continue to consider us as part of their options for harnessing their savings.

Should not the tax regulations in respect of life insurance savings be improved, especially considering that these are long-term savings? It is very difficult to get people to give up liquidity and consumption if there is no tax incentive. We now have a single rate for all savings. In the last 30 years, there have been different alternating models for the taxation of life insurance savings. Sometimes it has meant a few steps forward, other times a step back, but there has not been any single continuous model of genuine fiscal support for earmarked savings managed by the insurance sector, and that is what we are still demanding from governments.

This is somewhat unlikely in Spain, but it has happened in the USA on more than one occasion. If a pension fund were to go bust, could the *Consorcio de Compensación de Seguros* (Insurance Compensation Pool) play a role in winding it up and protecting scheme members' assets?

Right now, legislation does not allow that possibility. Secondly, our pension funds are generally of the defined-contribution type -there are only a few cases of the definedbenefit type in the employment system. Given that all the product does is accumulate funds- the risk is not transferred to another party, but is borne by the scheme member the development of financial markets is what scheme members must assume. There are mechanisms that allow the risk to be adapted by changing the characteristics of the package of assets being invested. The main quarantee in the case of pension funds is the cross-checking that is always performed between the fund manager and the depository, which, in line with legal requirements, must be two different legal entities. One of them manages it, but the deposit is held by the other. Situations have arisen in which the fund manager was having problems but the scheme members did not even learn of it, because the depository had perfect control of the assets in which the vested rights of the scheme members were invested. The only thing that happens is a search for and a move to a new fund manager.

Based on the fact that in 2010 Spain's GDP was EUR 1,062,591 million, what level of supplementary pension savings should we have in order to be in the same league as other countries in Europe, bearing in mind that the total amount of assets managed by

Premium volume at the Spanish Market (Source: ICEA - www.icea.es)

Estimated premium volume for the entire sector				
Non-Life lines	january to june 2010	january to june 2011	% growth	
Motor	5,956	5,853	-1.73%	
Health	3,218	3,353	4.20%	
Multiperil	3,304	3,413	3.32%	
Other non-life	3,915	3,845	-1.77%	
Total Non-Life lines	16,392	16,465	0.44%	

Figures in million euros

⁶ In Spanish: PPA (*Planes de Previsión Asegurados*).

⁷ In Spanish: PPE (*Planes de Previsión Empresarial*).

⁸ In Spanish: PIAS (*Planes* Individuales de Ahorro Sistemático).

⁹ National Statistics Institute http://www.ine.es/prodyser/pubweb/espcif/cuen11.pdf

pension, life insurance and mutual insurance funds stands at around 250 billion euros?

It is not a matter of stating a magic figure. This is an issue that should be part of a deeper social debate reflecting what we want to have and how much we ought to pay. In the near future we are going to have a very high percentage of old population and we will need them to keep consuming if the Spanish economy is to continue to grow. Obviously, that level of income should be related to preexisting wages. At present, our working population has public pensions that amount to about 80% of their average working salaries. It is true that the latest reform will mean a certain cut in that replacement rate, which should be covered by private savings. We would then have at least 40% of average working salaries that should be providing for future private pensions. We have been concerned that the elderly should not lose purchasing power, and we have therefore had pensions reviewed on the basis of the Consumer Price Index. Where our economic growth is not sufficient, however, the elderly will probably also end up losing purchasing power. Other countries have said that they want pensions for their elderly that are sustainable, so that they can continue to be paid by the working population. This means that pensions are reviewed on the basis of the country's economy. All this raises thousands of questions and debates that need to be seriously considered in order to provide answers.

Can we think about how to guarantee the pensions for our seniors when -as has been pointed out on several occasions- there is a moral hazard that our young people will not have access to work, or their wage levels will be low, meaning that their contributions to the Social Security system will also be low?

This situation is probably temporary, and I hope it does not take hold in our country's labour and social structure. It would be a disaster if we could not incorporate into the job market what is probably this country's best educated generation in all its history. This is a process of evolution. We would of course prefer for the Spanish economy not to be experiencing the current situation. There is plenty to do from many points of view, such as productivity, flexibility and efficiency – so many things.



The role of banks

What has the distribution of life insurance through banking networks contributed to the industry? Has it made it more popular or has it detracted from its image?

It has been a very good contribution, as it has contributed greatly to the growth and popularisation of insurance. In many cases, it has even given access to customers who have subsequently been used through other channels. I do not think that it has contributed to a bad image, because insurance does not have a bad image.

Will the consolidation and reform processes that are taking place in the savings bank sector benefit life insurance, for which they are major distributors?

When a financial structure is strengthened, it is beneficial to absolutely everything that it affects. I would assume that it will also be good for insurance. The most likely effect will probably be relocation of the exclusive distribution agreements currently in force, and that will have some effect on altering positions in the ranking of companies, especially the ranking of life insurance companies. Insurance is increasingly accounting for more in the balance sheets and accounts of financial institutions, and I do not think I am mistaken when I say that its commitment will be firm and permanent.

The main guarantee in the case of pension funds is the crosschecking that is always performed between the fund manager and the depository, which, in line with legal requirements, must be two different legal entities

Is Spanish life insurance a reference in Latin America? Is it a bridge between the practices of the European Union and other markets?

Of course it is. The presence of insurance groups in Latin America is a true reference for the activity taking place in different markets. We are more active and we represent more in the non-life sector. The example of MAPFRE is well known, but we have insurance subsidiaries of our major financial institutions that work there, and all we receive are positive reviews for their contribution with new products or their management in the markets where they are located.

What is your opinion on the microinsurance being marketed in Latin America for both life and personal accident or health?

It is essential to facilitate access to insurance services by all sections of the population, even in developing countries. This is

an admirable project and goal, and this demonstrates its importance and shows that it deserves the support of global financial institutions. The microinsurance projects that are currently being developed, some of which I know from FIDES, deserve financial support from the IMF, the Inter-American Development Bank and the Microinsurance Development Fund.

How do you see the role of reinsurance in life insurance?

I consider it essential. Insurance would not have been able to develop in general without the contribution of reinsurance. In more mature markets, the support required tends to be minor, except in the area of new risks, which are a challenge and an opportunity. This is the case with ageing, which is an opportunity for reinsurance. I am sure that they will know how to manage it, as they have done with many other things.

Basic features of the Spain insurance sector (Source: UNESPA - www.unespa.es)

Insurance's snare of GDP	3.42%
Average annual per capita insurance expenditure	
Life	548.01 €
Motor	245.31 €
Health	136.25 €
Multiperil	133.58 €

Average daily activity of insurance in Spain		
	Nº of claims each day	Daily cost
Life insurance benefits		72,176,989 €
Motor claims dealt with	31,809	23,496,824 €
Health insurance claims dealt with	53,599	11,372,363 €
Multiperil insurance claims dealt with	16,709	9,095,922€
Legal expenses claims dealt with	755	108,662€
Travel assistance claims dealt with	2,432	418,993 €
Other property insurance claims dealt with	14	174,528 €
Pecuniary loss claims dealt with	262	275,379 €
Public liability claims dealt with	321	1,959,969 €
Credit and bond claims dealt with	523	3,547,775 €
Funeral plan claims dealt with	643	1,569,088 €
Marine insurance claims dealt with	189	720,945 €
Personal accident claims dealt with	486	603,136 €
Fire claims dealt with	14	174,528 €

agenda

COURSES ORGANISED BY MAPFRE RE

Course	Method	Date	Venue
Fire fighting	Attend in person	17 th -18 th October 2011	Caracas, Venezuela
Fire fighting	Attend in person	20 th -21 st October 2011	Bogota, Colombia
Fire fighting	Attend in person	23 rd -24 th October 2011	Mexico D.F., Mexico
Multiperil property insurance for SMEs (10 hours)	E-learning	24 th October 2011	Latin America
Basics of Risk inspection (6 hours)	E-learning	24t th October 2011	Latin America
An introduction to Reinsurance (60 hours)	E-learning	24 th October 2011	-

COURSES ORGANISED BY ITSEMAP STM (SERVICIOS TECNOLÓGICOS MAPFRE, S.L.)

Course	Method	Date	Venue	
Basics of Environmental Risk Management	Attend in person	27 th -29 th September 2011	Barcelona, Spain	

