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Crisis and states of mind

Economic forecasters are overwhelming us with their opinions about how tough it's going to get, while at the same time telling us we'll get all the help we need –from heaven knows where– to keep our heads above water.

Perhaps before going down this path, we should remember that people are motivated by memory. This means that things have no absolute value, rather everything in life is relative and depends on our memories. That is why our reactions are influenced by our history and experience. It undoubtedly explains why the economic downturn is a state of mind as well.

This being the case, it seems clear that the pervading feeling of joy brought about by the success of Spain's football team, leading to a feeling of euphoria on the night of Sunday 11 July, is going to influence the behaviour of an index so completely unrelated to sport as is the economy.

But how strong are the ties that bind the Jabulani, the vuvuzela and the national economic situation? It seems clear that today's euphoria will have a positive impact on consumption and therefore on the economy, but it is worth thinking seriously about its medium- and long-term effects.

We know we are going through a rough patch financially which affects us all. But we ought to just stop and remember that often the things that really make us happy are memories that last a lifetime.

Sharing the opinion that today's economic competitiveness is helping the Risk Management culture become increasingly widespread in big business, in the first study published, the author, a former president of the Spanish Association of Risk Management (AGERS) and the current Risk Management Director of a leading broker, emphasises the growing number of tools that make it possible to act on the different components of the total cost of risk, to reduce it and, where applicable, optimise it.

It's a no brainer: the world's population is ageing and there are fewer and fewer people of working age. That is why the second study, based on empirical data, questions the effect that an ageing population will have on the job market and businesses. The study concludes that Risk Management methodology should start raising awareness, given the evident demographic outlook for developed countries.

The third and final study presents a proactive model of occupational health and safety management based on the OHSAS 18001 occupational health and safety management system. The system enables the risks employees are exposed to when carrying out their occupational activity to be controlled, therefore protecting their health.

The section ends with the 2009 Ranking of Europe's Largest Non-Life Insurance Groups published by MAPFRE FOUNDATION'S Institute for Insurance Science, in which it can be seen that the ten largest companies' Non Life policy volume dropped by 1.8 percent compared to 2008, a consequence of the economic upheaval caused by the international financial downturn.

Have a good summer 2010!

Risk Management TOOLS

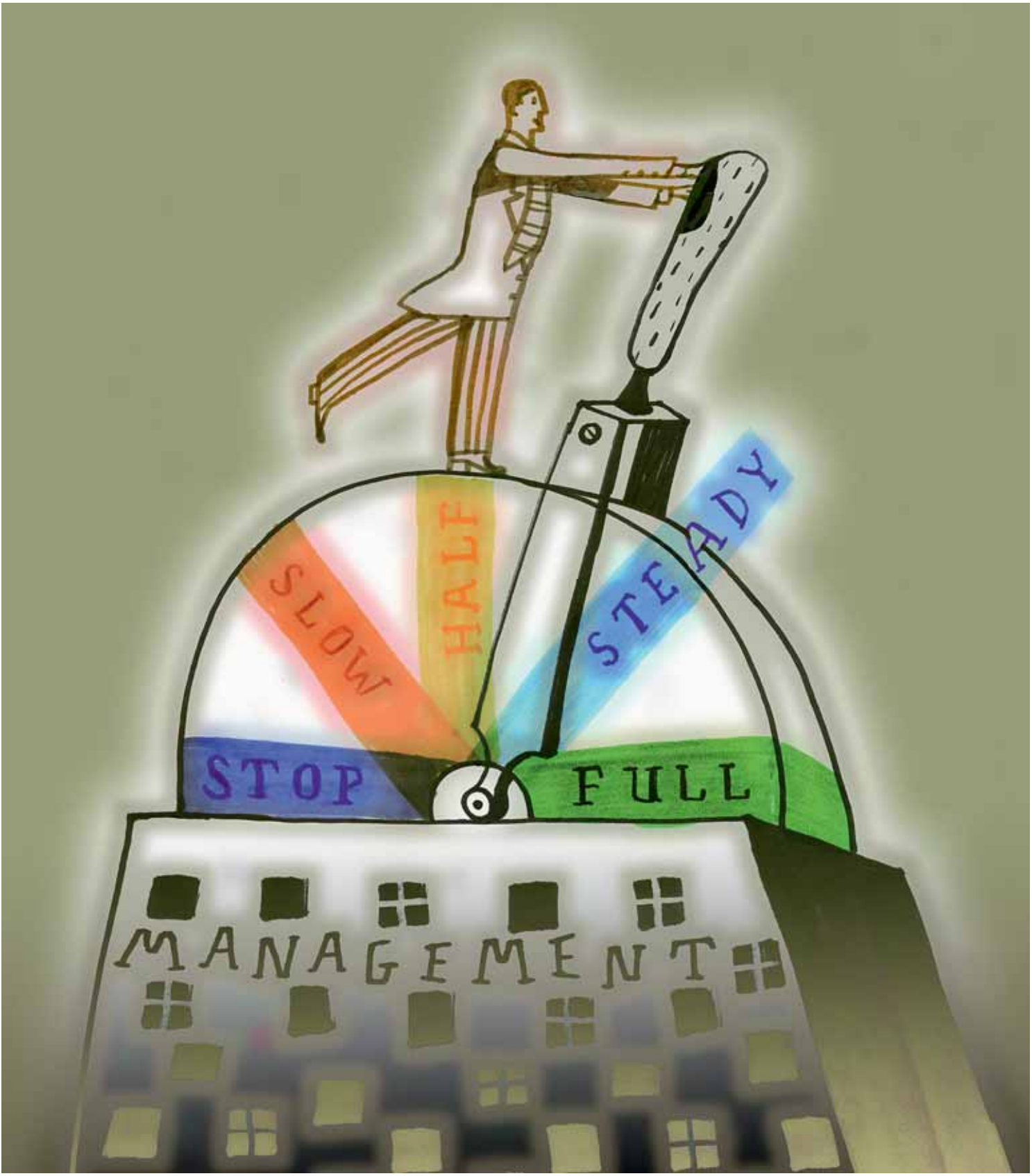
REDUCTION OF THE TOTAL COST OF RISK

Risk managers need to take measures to reduce the Total Cost of Risk, acting on the components thereof and using tools from outside the firm to support and help them in this work. This creates value for the company and brings out the full value of this function within the organisational structure.

MIGUEL ÁNGEL MACÍAS PÉREZ
Aon Risk Services

A risk management culture is now quickly catching on among major companies, driven on by the competitiveness of today's economy. This growth began as a theoretical approach, often to ensure compliance with legislation for listed firms, but has by now become a practical application in the companies' day-to-day activity.

This concept works from the premise that all organisations set themselves targets and then enshrine them in a strategic plan; these targets might then be threatened by a series of risks associated with their particular activities. This is the essence of the business activity; without risk there would be no opportunities. Risk Management must therefore be part and parcel of business management, ensuring that the strategic plan is not jeopardised by the materialisation of those risks.



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Risk Management has traditionally been seen as another cost for the firm; this view could not be more mistaken. It should be considered rather as an investment, since it heads off risks, losses, fraud, payment defaults, inefficiency, regulatory penalties, loss of image, etc. In short, it guarantees the firm's continuity.

Nonetheless, despite all the above arguments and a whole quiverful of other arrows that could be fired off in its defence, especially in such moments of crisis as we are currently living through, Risk Management is still considered as a cost centre. This is mainly due to its responsibility for taking out insurance policies. Any aid, therefore, that might help Risk Managers to assess, reduce and/or control their risks will be very highly appreciated.

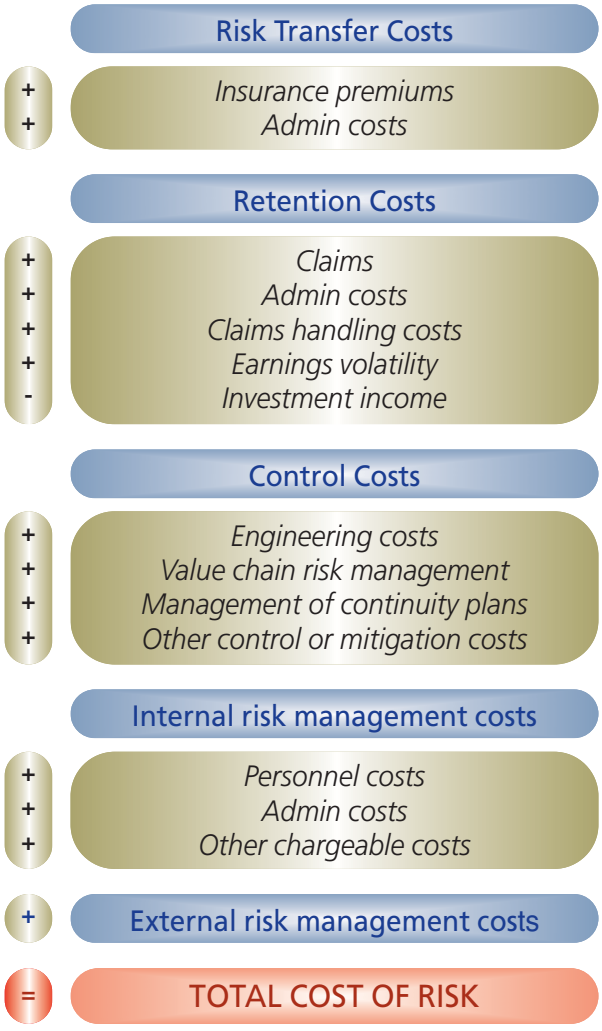
Risk Managers are faced with the stiff task of changing this mentality. Until such time as this cultural change occurs, however, an important step is to steer this approach towards a «TOTAL COST OF RISK» concept, conceived as something intrinsic to the business activity that Risk Management does not generate. It involves, first and foremost, analysing and assessing the total cost of risk before then concentrating on optimising and reducing it, within an ongoing process of review and updating.

This is not a new concept. Any activity incurs risks, which have an economic valuation called Total Cost of Risk; this is the sum of the loss caused by risk occurrence plus the costs of heading them off or reducing them, plus financing and management costs.

The components of Total Cost of Risk are:

- **RISK TRANSFER COSTS:** These refer mainly to the costs associated with taking out an insurance policy (premiums and additional costs such as commissions or fees).
- **RETENTION COSTS:** These are the costs associated with any form of self-insurance, from the calculation of the deductibles, claims excluded, to the use of a captive insurance company.
- **CONTROL COSTS:** These are mainly the costs related to the prevention and reduction of the risks.
- **INTERNAL RISK MANAGEMENT COSTS:** These are administration costs, with a continual effort being made to streamline them.
- **EXTERNAL RISK MANAGEMENT COSTS:** This is the average weighted cost, its fiscal effects and opportunity cost.

Figure 1. Components of Total Cost of Risk.



Graph of the Aon Client Promise Methodology – Aon Total Cost of Risk Assessment.

The Total Cost of Risk will have an optimum point, which we can see in the following graph; this shows the curve representing the marginal cost of risk retention and the curve representing the marginal cost of risk transfer. The sum of the two represents the Total Cost of Risk and where the two curves cross marks the lowest point of the Total Cost of Risk. (Fig. 2)

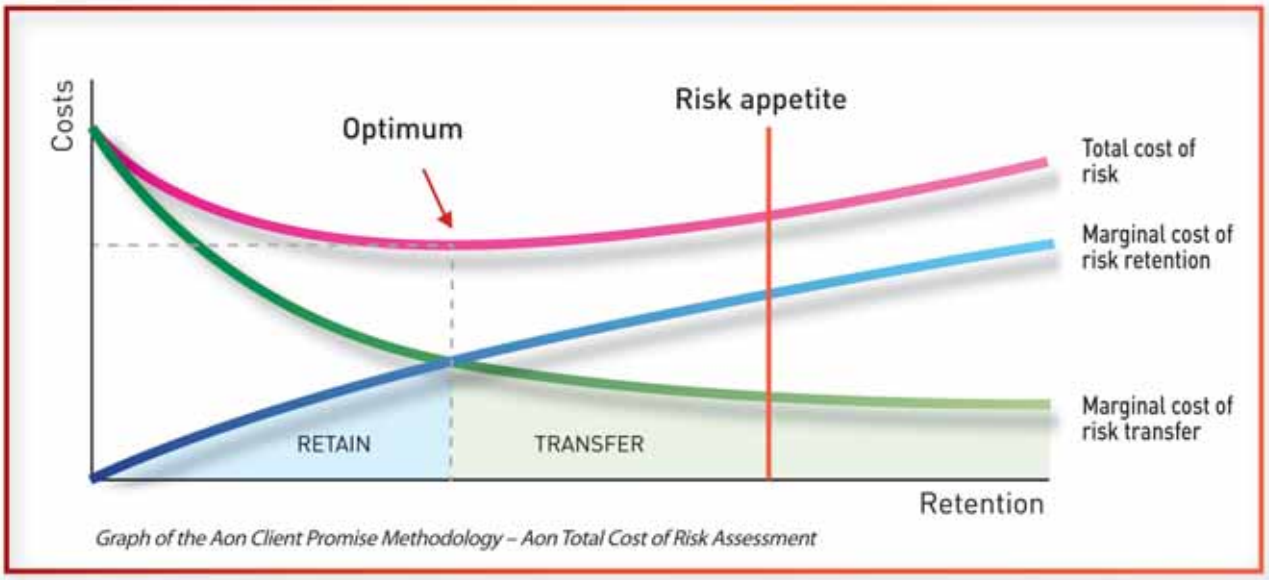


Figure 2. Graph of the Total Cost of Risk.

The Total Cost of Risk will be the result of the decisions taken by the firm in setting its risk-transfer and -retention levels in terms of its particular risk appetite (retaining more and transferring fewer risks pushes us to the right on the graph).

If our objective is to reduce the Total Cost of Risk, we will have to act on each of its components; the result of this is shown in the following graph. (Fig. 3)

RISK MANAGEMENT HAS TRADITIONALLY BEEN SEEN AS ANOTHER COST FOR THE FIRM, BUT IT SHOULD BE CONSIDERED RATHER AS AN INVESTMENT, SINCE IT GUARANTEES THE FIRM'S CONTINUITY

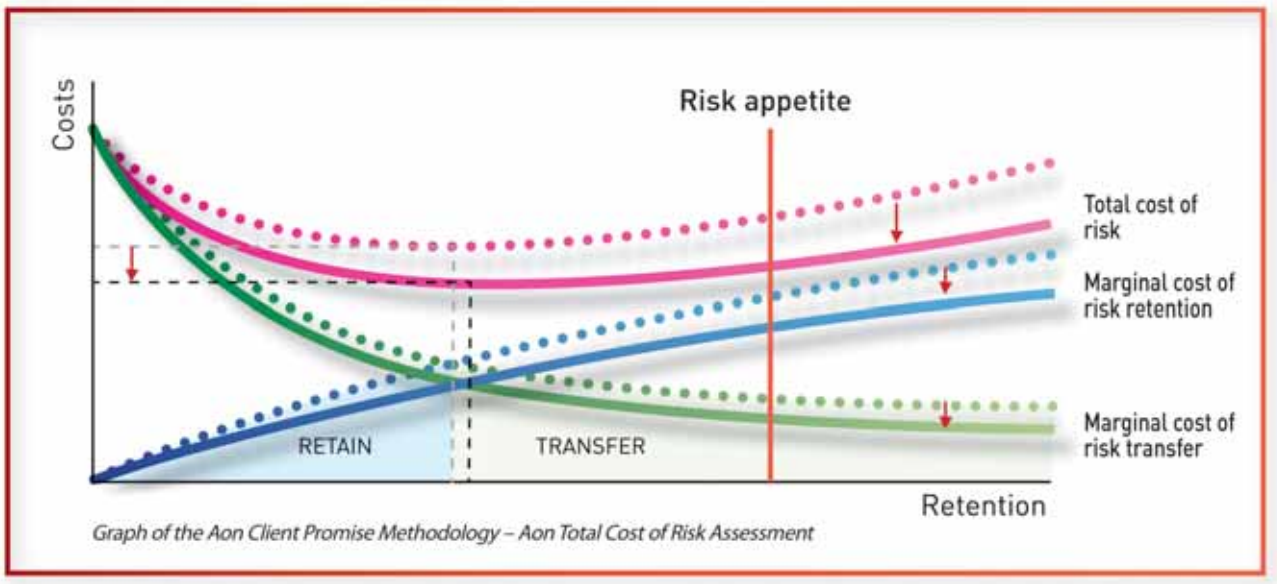


Figure 3. Optimised Total Cost of Risk.

To act on each component of the Total Cost of Risk, Risk Managers will have to carry out a series of actions to optimise and reduce it. They can do this with their own resources but in most cases will need specialist external help, taking a direct role in business management and generating value for shareholders and the public at large.

A series of measures are then taken on each of the components of the Total Cost of Risk, to control and reduce it. In the practical application of each particular case this will bring us closer to the optimum point of balance.

Actions on Risk transfer costs

We start out from the assumption that all managers and placers of insurance programmes for Risk Managers follow the pertinent code of good professional practice. Additionally, however, they can take further measures, mainly of external origin, to reduce these risk-transfer costs, such as:

UNTIL THE ARCAIC VIEW OF RISK MANAGEMENT CHANGES, AN IMPORTANT STEP IS TO STEER UP THIS APPROACH TOWARDS A 'TOTAL COST OF RISK' CONCEPT, CONCEIVED AS SOMETHING INTRINSIC TO THE BUSINESS ACTIVITY

● Audit and Review of Insurance Programmes

A useful tool in company merger and purchase processes, calling for an external and independent opinion on the companies' situation in this arena. The auditing of insurance programmes by an independent expert could also be well worthwhile as reinforcement and as good corporate practice; this audit would take into account not only the cost and suitability of the premiums but also the necessary limits and coverage for proper protection of the company's assets.

● Benchmarking of the insurance programme

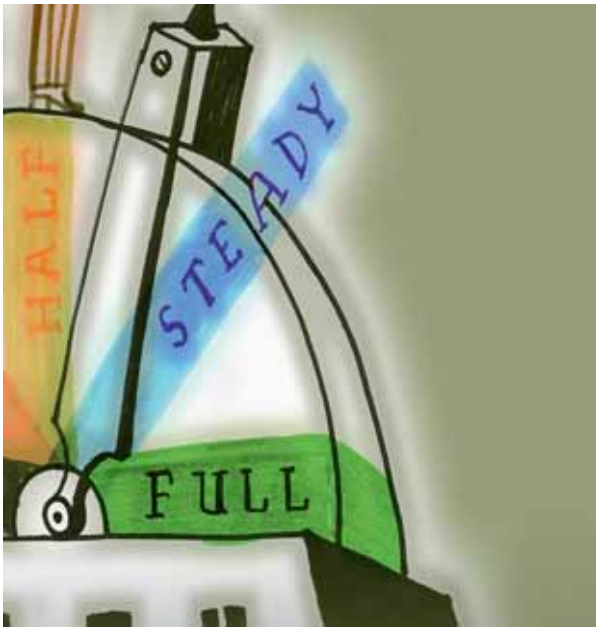
The gleaning of information on what limits and deductibles are being taken out by similar firms of our sector, as well as their average premiums, will give us useful insights for taking decisions about our own programme or about any new expansion project for a new activity or country. It might be equally enlightening to know which insurers have more or less appetite for given risks, and even the ideal moment for moving into the insurance market. All this information will help us trim risk-transfer costs.

● Premium Allocation Models

In complex business groups running international programmes, even sometimes with captive insurance companies, the amount spent on premiums may be considerably trimmed by means of a correct allocation thereof to suit the risk involved, the claim rate in each activity area and the taxes chargeable on the premiums in different countries, without breaching any legislation.

● Asset Inventory and Valuation

A precise and exact knowledge of asset values is a *sine qua non* of correct decision taking. It will also be useful for other objectives such as asset management and control, transfers of ownership, financing arrangements,



administrative, fiscal and accounting purposes, etc. This step is fundamental for establishing values in insurance policies, not only to avoid the consequences of underinsurance but also to set suitable compensation limits and avoid premium overpayments.

Actions on retention costs

Determination of suitable retention levels is more of an art than a science. Many factors come into play here, ranging from the organisation's financial resources, to risk appetite, sophistication of the internal risk management arrangements to the market situation.

The following services might facilitate this management

● Optimisation of deductibles /retentions of the insurance programme

Optimisation of the retentions and deductibles in the case of complex programmes involving many risk situations calls for a study using actuarial tools, showing the sensitivity to premium reduction of each one of the

deductible alternatives and the added claims cost this implies.

The different calculation methods will give us a projection of the situation on the basis of historical data and the confidence level we input into the system.

● Captive Reinsurance Companies

The setting up of a captive insurance company, either as a direct insurer or reinsurer, is a valuable risk management tool; it is also one of the best ways of optimising retention and our self-insurance fund. Prior analysis, the setting up of the company and subsequent running thereof all call for the help of a specialist, inputting its knowledge and resources. This work will be topped up with financial and actuarial consultancy tasks to ensure compliance with the requisites laid down by Solvency II and the QIS 4 and 5 tests.

● Claims Management and Adjustment

The sheer complexity of claims means that Risk Managers stand in need of specialist help to ensure correct management thereof, offering the following advantages:

–Swift and effective settlement of claims.

–Less interruption of productive and income-generating activities, with support for the involved company departments.

–Limitation of legal action to specific cases and technical assistance in taking this action.

The same collaboration will be needed for adjustment and management of self-insurance claims, obtaining savings by harnessing economies of scale and the specialisation of the manager. This will allow us to tap into their experience, freeing up resources and improving the image projected to the outside world. Unification of this management will help us take corrective action based on trustworthy, centralised information.

Actions on reduction and control costs

One of the classic Risk Management functions, after pinpointing and analysing the risks, is their elimination, if possible, or at least their reduction, doing so by taking suitable measures to prevent the risk occurring or reducing its consequences if it does happen. Measures along different lines need to be taken to this end.

● Risk Engineering

This service, carried out by specialists, can take in different areas, such as:

–Fire- and theft-prevention service.

–Prevention of occupational risks.

–Environmental risks.

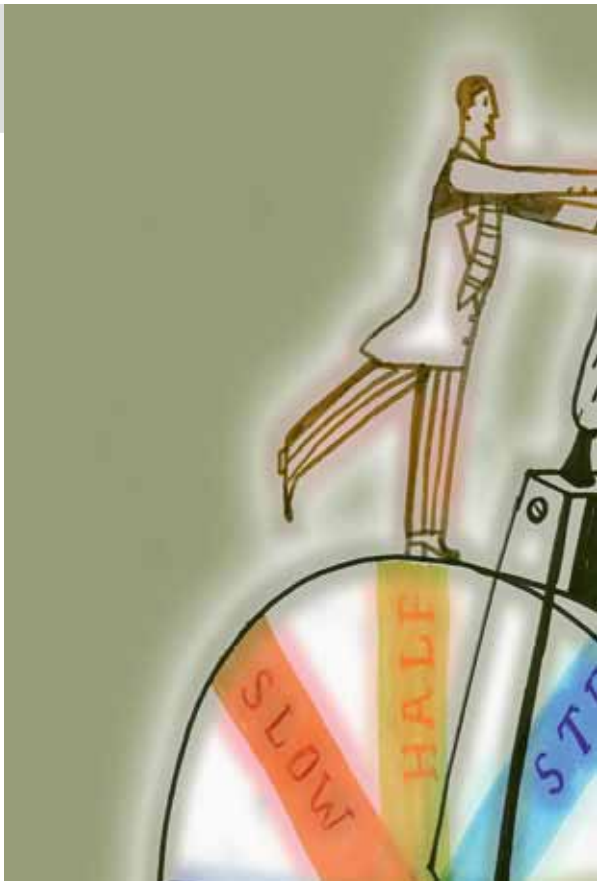
On the basis of the reports and recommendations issued, suitable safety and prevention measures will be taken to avoid occurrence of the undesired events.

This service will back up Risk Management, improving the firm's social and business recognition and ensuring abidance by current legislation and compliance also with the standards laid down by insurers. It will also of course reduce costs.

● Business Continuity Plan

Readiness to deal with any crisis will give us a competitive edge and ensure we can

TO ACT ON EACH COMPONENT OF THE TOTAL COST OF RISK, RISK MANAGERS WILL HAVE TO CARRY OUT UP TO FIVE ACTIONS TO OPTIMISE AND REDUCE IT, USING THEIR OWN RESOURCES OR MOSTLY WITH SPECIALIST EXTERNAL HELP



successfully come through any crisis that does befall us.

The business continuity plan is a key element in building up an enterprise Risk Management strategy, rather than dealing with these situations in a seat-of-the-pants manner.

As well as boosting the company's survival chances, active continuity planning has other notable advantages. These include reduction of costs associated with business interruption such as higher expenses, loss of income or loss of clients. If the company acts as a supplier of products and services, any shutdown of its activity may also trigger contractual penalties and forfeits.

The Business Continuity Plan (BCP) is a key element in building up an enterprise risk management strategy

CRISIS SCENARIO → BUSINESS CONTINUITY PLAN

Establishes actions for reducing the response time to a crisis scenario

Lays down the guidelines for returning to a situation of normality and restoring business activity in the shortest time possible

Structure of a Business Continuity Plan

BUSINESS CONTINUITY PLAN

- Crisis management plan
- Communication plan
- Personnel management plan
- Infrastructure recovery plan
- Business recovery plan
- System recovery plan
- Maintenance plan

Results of a Business Continuity Plan

Pinpoint the various events that could impinge on continuity of the operations
Establish the recovery times for restoring the pre-disaster situation
Prevent or minimise losses in the event of disaster
Prioritise assets to be protected or recovered in the event of disaster
Ensure suitable management of resources in the event of any incident
Improve the image and safeguard confidence in the firm by all stakeholders by demonstrating that resources are in place to guarantee continuity of the operations.

Information Technology Governance

There is an ever-increasing need to ascertain whether or not a company's IT area is suitably managing the risks and falls in line with the company's targets. The current dependence of IT systems means that the management of ensuing risks is strategic and also somewhat bewildering, calling for highly specialised advice in such areas as:

–Analysis of strategic risks and business process risks deriving from the information systems.
–IT audit of critical systems supporting the business processes.
–Security hardening of networks, systems and applications. Ethical hacking.
–Adaptation to the Spanish Data Protection Act (LOPD in Spanish initials) and audits of the Security Measures Regulation provided for by the Act.
–Auditing of outsourcing contracts.
–Bringing internal control of information systems into line with SOX404 and COBIT legislation.
–Design, implementation, auditing and testing of business continuity plans.
–Training and awareness raising.

Strategic planning in the development, management and supervision of Information Systems

Analysis of strategic risks and process risks of the business deriving from the use of information systems	**IT audit and audit of critical systems to backup business processes**	**Security hardening of networks, systems and applications** **Ethical hacking**
Audit of outsourcing contracts, considering legal aspects and compliance of service levels; SAS 70 Audit	**Corporate Governance in the IT area**	**Adaptation to the Spanish Data Protection Act (LOPD) and conducting compliance audits as laid down in the Act**
Bringing internal control of information systems into line with SOX404 legislation and COBIT	**Design, implementation, audit and testing of Business Continuity Plans**	**Training and awareness raising. Logical security. Social engineering programmes, LOPD compliance**

Action on internal risk management costs

As Risk Management builds up to a significant level within the firm it will need management instruments and aids, especially in view of the fact that resources, especially human resources, are usually fairly thin on the ground in most businesses. There will therefore be a need for outside help to ensure management at the lowest cost possible, without increasing, or even reducing if possible, the internal Risk Management costs.

● Risk Management IT Tools

Risk Managers usually have to perform their tasks with precious few resources to hand. There is hence a growing need for an IT programme that integrates all risk management functions, especially policy and claims control but also including all the other needs, like risk inventory, controls, etc. In the case of business groups facing a diversity of situations and activities running international programmes, tools of this sort could be regarded as essential.

● Legislation Compliance

The role of Legislation Compliance in any firm is to organise, coordinate and structure proper compliance by the firm with legal requirements in all the areas it trades in. This is usually monitored by means of a scattered patchwork of controls at different levels of the organisation. Its mission should be clear, explicit and geared towards protecting the interests of its firm from any damage that might ensue from a breach of established legislation (legal risk, legislation risk and reputation risk), thus contributing towards a more efficient management of its risks.

Insofar as compliance risk is considered to be just one risk more, falling under the remit of the Risk Manager, the diagnosis, analysis of possible faults and action plans represent a complex task calling for specialist help. A particular case is compliance in Spain with the Spanish Data

THE BUSINESS CONTINUITY PLAN IS A KEY ELEMENT IN BUILDING UP AN ENTERPRISE RISK MANAGEMENT STRATEGY, RATHER THAN DEALING WITH THESE SITUATIONS IN A SEAT-OF-THE-PATH MANNER

Protection Act (Ley Orgánica de Protección de Datos: LOPD).

● **Outsourced Risk Management**

Companies that, due to their size or structural limitations, have not set up their own risk management department, can outsource this service to specialist firms, achieving the same results as with their own inhouse department.

This same need may arise in major firms to bide them over temporary difficulties while the post is covered, either because the CRO has left or when new firms are being grafted into the group or similar situations calling for an immediate, albeit provisional, solution.

● **Enterprise Risk Management (ERM)**

The setting up of an Enterprise Risk Management (ERM) system entails a significant organisational and administrative effort. This burden can be lightened with the help of specialist consultants, giving rise to the development of Risk Management processes and methodologies. Their involvement will be crucial in the initial definition and start-up phase, their role thereafter being limited to maintenance and updating of the procedures.

The service will extend to all fields of application, even in complex settings: strategic risks, geopolitical risks, reputation risks, operational risks, environmental risks, technology risks and financial risks.

This outside aid will also be necessary if we wish to manage risks with due compliance of the parameters of COSO II or the recent standard ISO 31000.

CONCLUSION

The conclusion we can draw from all the above is that, for Risk Management to be effected with the scope required for each particular firm, there are tools and processes that we can obtain from specialist consultants. These allow us to act on the various components of the Total Cost of Risk, to reduce it to the lowest level possible.

This gives firms a better understanding of the risks they face and the way these risks are intertwined. It gives them a strategic advantage by consolidating their activity and ensuring their long-term sustainability, helping to increase the value for the shareholder and imbue the risk culture throughout the company's whole decision-making structure. This brings out the true value of this function, which does not always get the credit it deserves within the firm's organisational structure.

THE SETTING UP OF AN ENTERPRISE RISK MANAGEMENT SYSTEM CAN BE LIGHTENED WITH THE HELP OF SPECIALIST CONSULTANTS, GIVING RISE TO THE DEVELOPMENT OF RISK MANAGEMENT PROCESSES AND METHODOLOGIES

New Challenges for Risk Management:

Is population ageing a systemic risk?

The ageing of world's population is a phenomenon clearly observable that will have in the near future multiple effects in work and business. The methodology of Risk Management can play an important role in addressing this contemporary risk.

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The concept of life expectancy

Psychological-sociological approach

One of mankind's overriding concerns has always been the preservation of life. Although we do not know exactly what happens once we lose this precious gift, day to day activities are all geared towards prolonging life to the utmost and also maximising its quality. Interest in life and ageing has been omnipresent throughout the history of mankind. Two aspirations that have existed in all cultures and at all times bear eloquent witness to this life-prolongation drive: the quest for longevity and immortality. Alchemist's chimera such as the «elixir of eternal youth» and the «fountain of life» have lingered on into today's society in vestigial form: vitamin pills, anti-ageing cosmetics, quirky diets, keep-fit programmes, plastic surgery…

THINKERS DOWN THE CENTURIES HAVE SHOWN INTEREST IN LONGEVITY AND ETERNAL YOUTH; THEY HAVE BEEN EQUALLY KEEN TO UNDERSTAND THE AGEING PROCESS AND THE PROBLEMS OF ADVANCED AGE

Thinkers down the centuries have shown an unflagging interest in longevity and eternal youth; they have been equally keen to understand the ageing process and the problems of advanced age. The ancient civilisations of China, India and the Eastern Mediterranean area studied this subject in great depth. So did the Greeks and Romans somewhat later. Other philosophers like Plato and Aristotle provided telling insights into the subject, their thoughts playing an important role in European culture. By way of example, in the Middle Ages, old age was conceived as the age of emotional balance and as a release from the yoke of worldly pleasures; on the other hand, it was also seen as a stage of physical and mental decline.

Turning to the psychological aspects of life expectancy, mention could be made, on the one hand, of intellectual skills, such as memory, learning ability, adaptation and the relation thereof with the level of activity and satisfaction in life. But then there is also the question of the individuals' attitudes and reactions to their environment; their interactions with society tend to dwindle as they shrink from activities with a growing degree of dependence on their peers.

In recent centuries medical advances

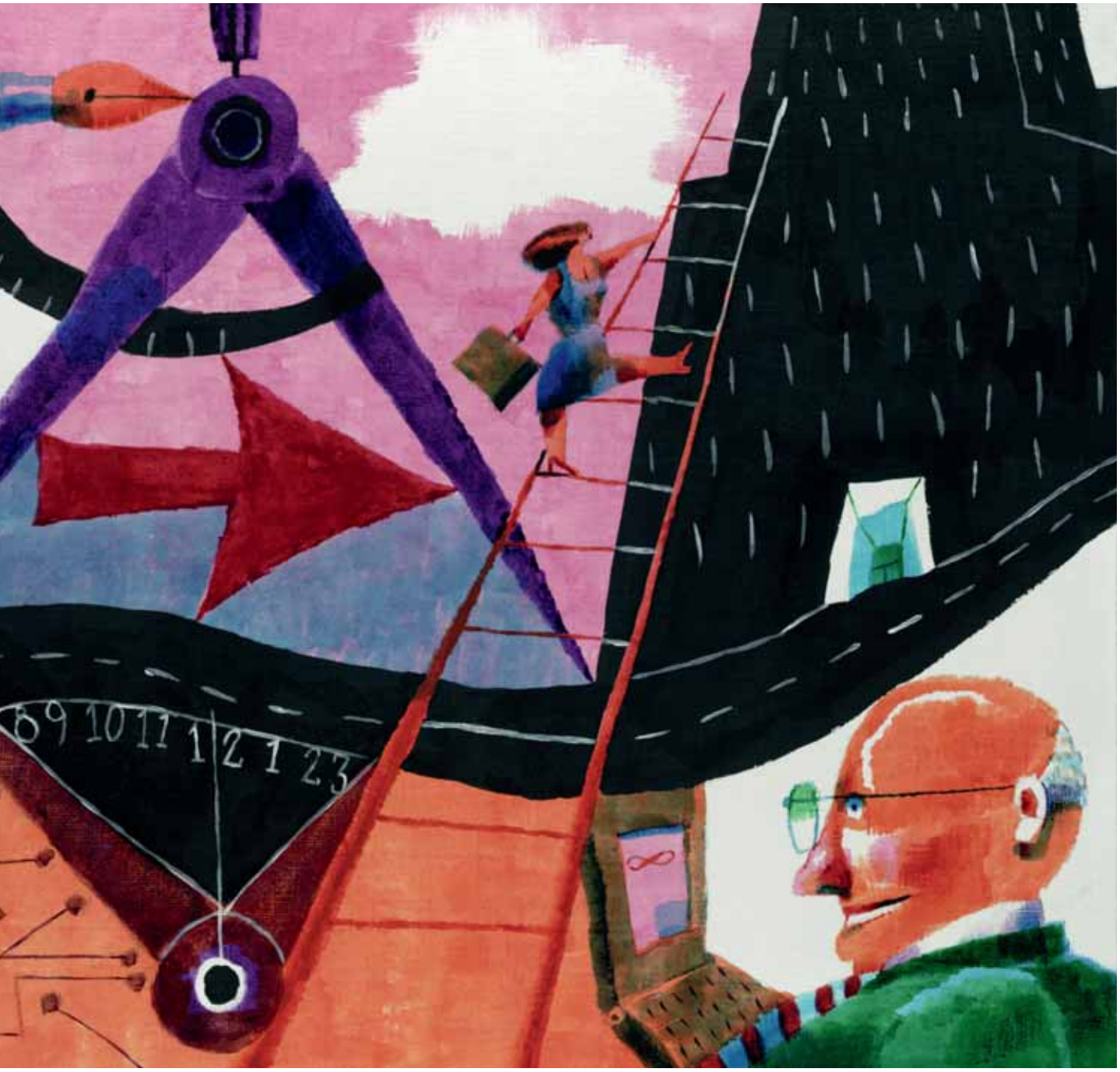


ILLUSTRATION STOCK

have provided man with a quiverful of weapons to fight against diseases that once tumbled whole civilisations. This struggle is not over yet; there are still incurable diseases and a great part of the world's population cannot afford these new drugs and medicines.

Biological approach

According to the laws of nature it is inevitable that all living things change over time, both in structure and in function. The ageing process involves progressive alterations to the cells, tissues, organs and the whole organism. The upshot is that old age is the inevitable result of organic and mental deterioration. This deterioration is already visible in mid life. Research shows that ageing starts way before the age of 65. By the age of 40 there is already a decline in energy levels, with a corresponding increase in susceptibility to diseases and disabilities.

It therefore seems *de rigueur* to point out here that the human organism passes through a cycle comprising conception,

when life expectancy is maximum, through birth, childhood, adolescence, maturity, decline and death. The latter brings life expectancy down to zero.

Demographic-mathematical approach

From the demographic-mathematical point of view the complete life expectancy at birth is defined as the mathematical expectancy of the random age-of-death variable, X, defining this within a set of real positive numbers ranging from zero to infinity, albeit with acceptance in practice of a threshold value, w. If the age-of-death variable is a discrete variable, life expectancy is then called reduced life expectancy (ex). This would be the complete number of years that a person who has reached the age x could expect to live.

Factors that have influenced life expectancy:

A. Agrarian revolution:

–Invention of new techniques allowing land to be worked with less effort.

–Application of techniques to obtain higher farming yields and more harvests per year, the introduction of new crop rotation schemes, etc.

–The appearance in Europe of new crops from elsewhere in the world (maize, potato), changing nutritive possibilities.

–New land is brought into cultivation, both in Europe and the new continents colonised by the Europeans.

B. Transport and communication revolution:

–Paths are upgraded from beaten tracks to paved roads.

–The 19th century sees a great leap forward with the use of steam locomotion on land (railways) and on the sea (steam ships).

–Communications become faster on the strength of continual technological innovation.

C. Scientific Revolution:

–Medical and pharmaceutical advances, impinging directly on the reduction in death rates.

D. Industrial Revolution (18th to 19th century):

–Increased production of goods and services.

IN LAST CENTURIES LIFE EXPECTANCY HAS SOARED DUE TO AGRARIAN, TRANSPORT, SCIENTIFIC, INDUSTRIAL AND URBAN REVOLUTIONS

–Development of manufacturing industry, incorporating mechanical working systems to reduce production times and costs.

E. Urban Revolution:

–Cities, springing up around the mining and industrial hubs, grow rapidly and become authentic black holes sucking in people from the surrounding countryside.

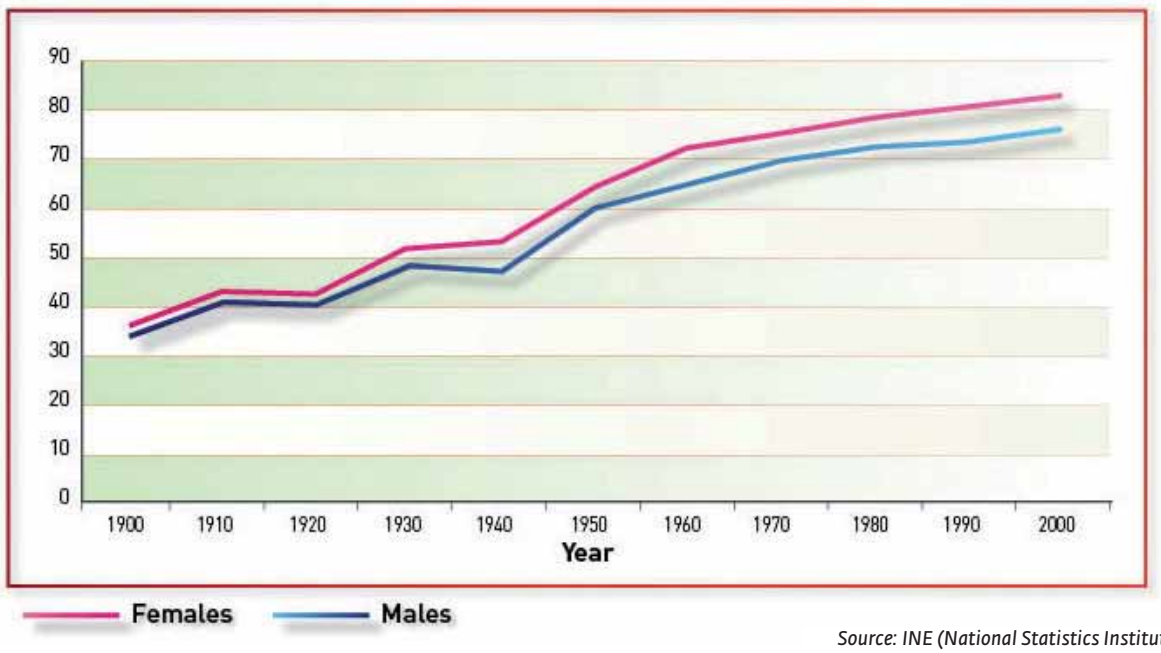
–The cities' infrastructure is steadily improved throughout the 19th century (sewage systems, drinking water purification, street cleansing, road paving, public lighting, etc.), whereby the cities cease little by little to be «death traps» and become healthy, dynamic and modern areas driving social and economic change and also altering peoples' mindsets.

As a result of all these changes life expectancy and the worldwide population both soared. The distribution worldwide is uneven, however, with glaring discrepancies in some developing and under-developed countries. The population increase would have been even steeper but for high infant mortality, famines and epidemics.

Life expectancy in twentieth-century Spain increased substantially, from 34.7 years in 1900 to 78.7 in 1998. The increase for males was from 33.8 to 75.2 and for females from 35.7 to 82.1. The biggest increase in life expectancy came in the first third of the century due to the improvement in living conditions. Other factors enhancing life expectancy in the last third of the century were improvements in healthcare techniques and increased access thereto, as well as the setting up of the social safety net that culminated in a fully-fledged welfare state.

LIFE EXPECTANCY IN TWENTIETH CENTURY SPAIN INCREASED SUBSTANTIALLY FROM 34.7 YEARS IN 1900 TO 78.7 IN 1998

Life expectancy in Spain in the twentieth century.



Source: INE (National Statistics Institute)

THE BABY-BOOM BEGAN IN SPAIN IN 1995, TEN YEARS LATER THAN IN THE REST OF EUROPE, DUE TO THE LINGERING AFTERMATH OF THE CIVIL WAR

This graph shows that this variable slipped back in the decades of 1910-1920 and 1930-1940, mainly due to the 1918 flu pandemic and the Spanish Civil War from 1936 to 1939, which affected males above all. As from 1950 growth has been steady with no setbacks. In fact the trend is one of continual but moderate growth. This implies a concomitant fall in the death rate, thanks to improvements in treating and preventing diseases. The reductions in the death rates did not occur until after World War I, i.e., nearly a century behind other European countries. Likewise, the fall in fertility came late in Spain, not occurring until a few years before the Spanish Civil War.

The main effect of all the abovementioned factors was a considerable population increase, thanks above all to the drop in infant mortality. In figures the population grew by about 10 million from 1900 to 1950, rising from 20 million to 30 million. By the end of this period, however, a slight ageing process had already become observable, with an increase in the proportion of over 65s.

The baby-boom, a totally left-field event from a demographic point of view, began in Spain in 1955, ten years later than in the rest of Europe, due to the lingering aftermath of the Civil War. Logically, this increase in fertility acted as a break on the incipient ageing process. Spain's post-baby-boom fall in the fertility rate also lagged behind the rest of Europe. The fertility rate held steady at about 3.0 until the late seventies, plunging to below 1.5 by the mid nineties.

As for life expectancy in the twenty first century, the following table shows the same upward trend with no setbacks whatsoever. In 2002 male life expectancy stood at almost 77 while the figure for females was 83, representing an inter-sex gap of 6 years. Forecasts up to 2025 show that male life expectancy will top 80 and female life expectancy will reach 86. The male-female gap will not come down. Forecasts for 5 years later show little change.

Life expectancy in Spain in the twenty-first century by gender.

Year	Males	Females	Gap
2002	76,63	83,36	6,73
2010	78,34	84,79	6,45
2015	79,23	85,54	6,30
2020	79,84	86,04	6,20
2025	80,37	86,48	6,12
2030	80,89	86,92	6,03

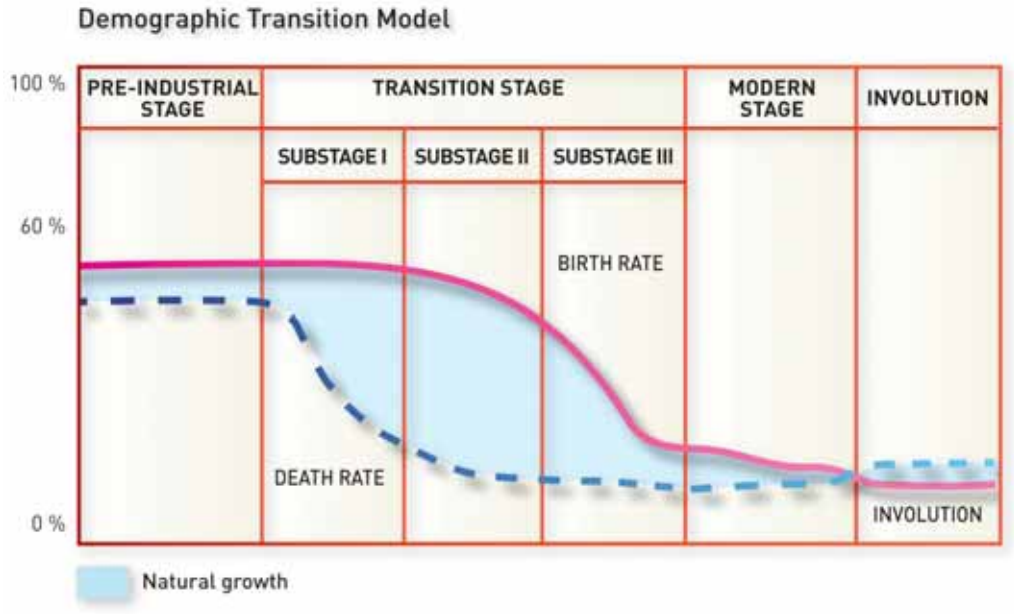
Source: INE forecast on the basis of the 2001 census.

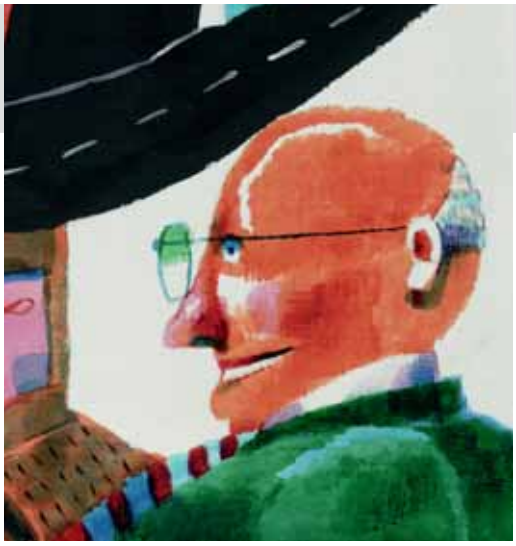
The Demographic Transition Theory.

The demographic transition theory defines some stages through which populations necessarily have to pass from the traditional demographic model to the current one. These stages are of variable length depending on the population involved. This process began in the late eighteenth century or mid nineteenth century in industrialising countries and ended in the sixties or seventies of the twentieth century. The two variables considered in the model are birth rate and death rate, their difference being the population's natural growth.

The model starts from a stage in which a population has very high birth and death rates, more or less cancelling each other out and therefore with only weak population growth. This stage corresponds to the pre-industrial society. The transitions ends with a final stage in which both rates are, on the contrary, very low, so the population growth rate is once again very weak or even negative.

THE DEMOGRAPHIC TRANSITION THEORY DEFINES SOME STAGES THROUGH WHICH POPULATIONS NECESSARILY HAVE TO PASS FROM THE TRADITIONAL DEMOGRAPHIC MODEL TO THE CURRENT ONE





FROM 1900 TO 1998 SPAIN'S POPULATION DOUBLED, RISING FROM 18.6 MILLION IN 1900 TO 39.5 IN 1998

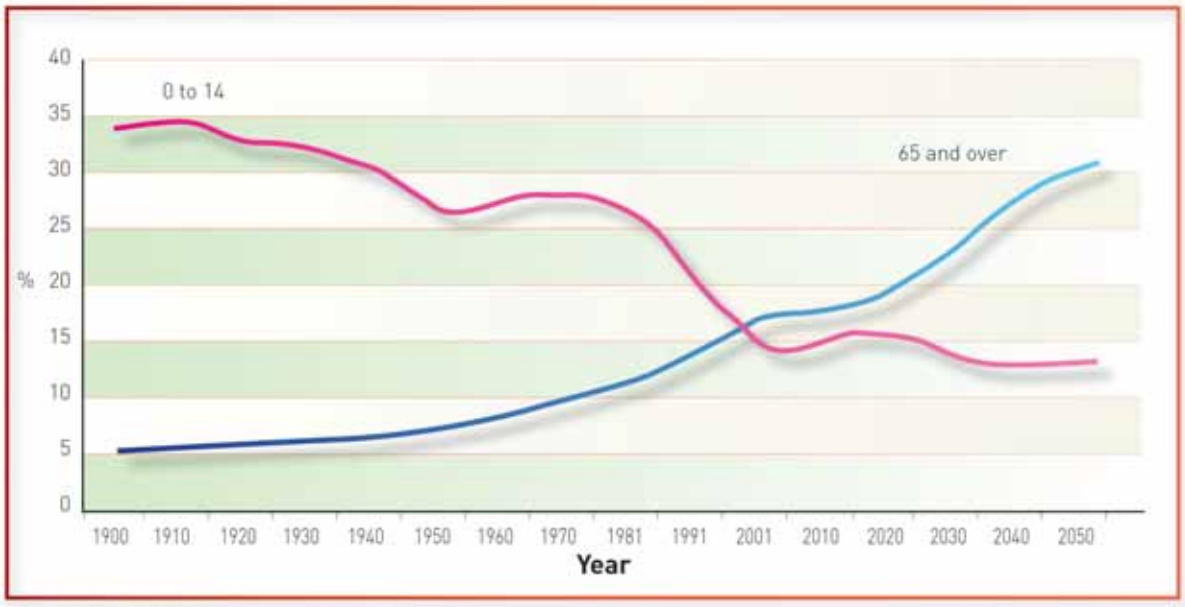
The transition comprises two phenomena that are consecutive in time:

The first kicks off in the early twentieth century and consists of a sustained reduction of the death rates (especially the infant mortality rate) as result of the improvements in living conditions brought in by the industrial revolution (public hygiene, better nutrition, etc.). During this first stage of the transition individuals have not yet adapted their reproductive behaviour to the falling death rate. By inertia they continue to procreate massively to ensure the future continuity of their family, so the low death rate coexists at first with a high birth rate. The result of the interaction of these two factors is a growing, very young population.

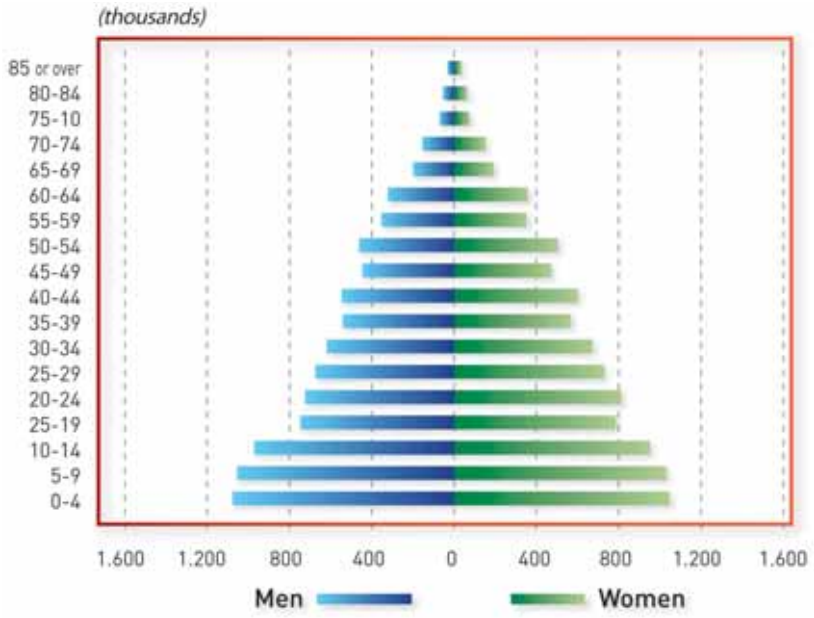
With time individuals adapt their behaviour to the new context of lower mortality, thus initiating the second phase of the demographic transition theory, a gradual fall of the birth rate. The death rate also continues to come down, once more as a cumulative effect of the improved living conditions and also the significant healthcare advances.

By the end of the process the population strikes a new balance with low death and birth rates. This new balance brings with it an ageing population; it is in fact this new demographic regime that characterises all developed countries today. Hence the inversion of the demographic trend, as shown in the following graph, where the number of persons aged 0-14 is falling while the 65s and over are increasing:

Inversion of the demographic trend 1900 to 2050



Source: INE: INEBASE: Population census, 1900 to 2001, INE, 2004
INE-INEBASE: Forecasts of the Spanish population from the 2001 Population census. INE, 2004



Spanish population pyramid. Year 1900.

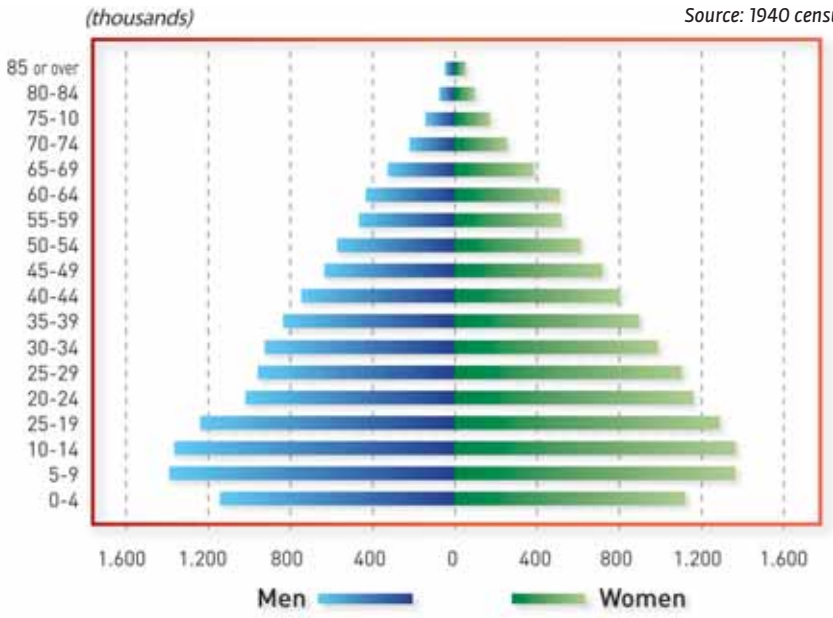
Source: 1900 census.

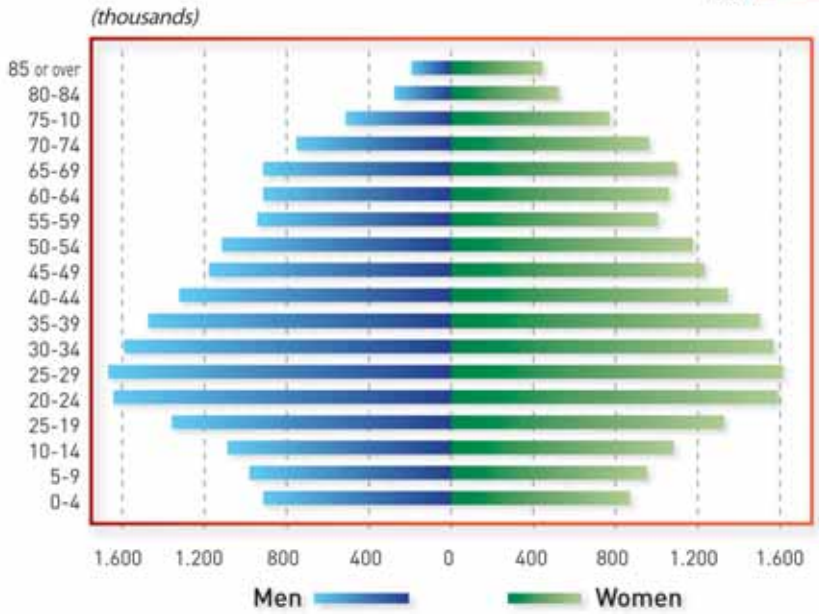
Population Pyramids in Spain

From 1900 to 1998 Spain's population doubled, rising from 18.6 million in 1900 to 39.5 by 1998, representing an average cumulative yearly growth of 0.77%. Moreover, the crude death rate during the same period fell from 2.83% in 1900 to 0.92% in 1998.

Spanish population pyramid. Year 1940.

Source: 1940 census.





Spanish population pyramid. Year 1998.

Source: Spanish population mortality tables. Years 1998-1999.

The Spanish population pyramid in 1900 shows the typical triangular shape of a young population in expansion. By 1940 the population pyramid had begun to change shape as a result of the falling birth rate during the Spanish Civil War. By 1998 the birth rate had shrunk dramatically, with the concomitant population ageing.

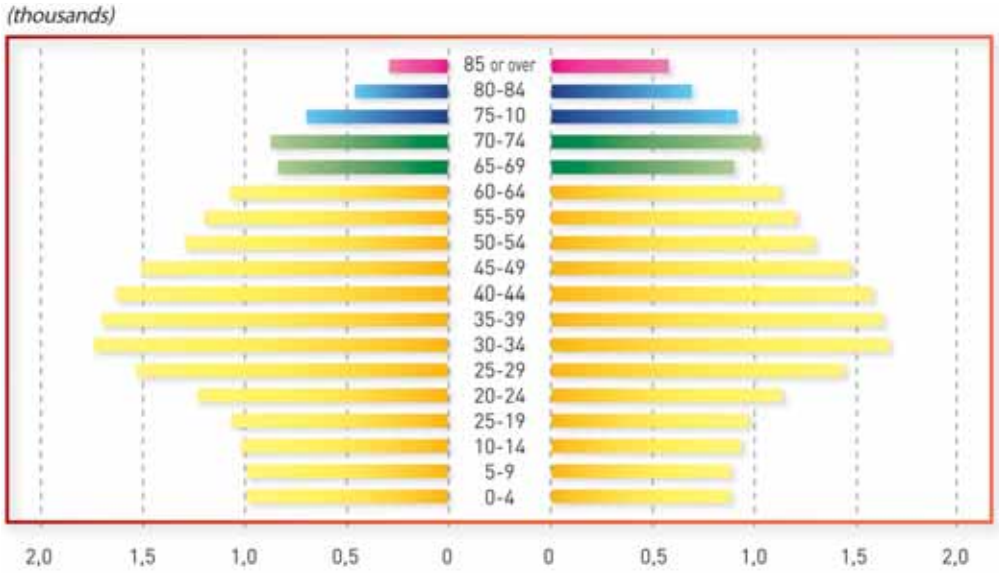
Spain's twenty-first century population pyramids show a small base, reflecting very low birth and death rates, with deaths sometimes outnumbering births. This spells a nil or even regressive growth. By 2004 the population is ageing with a low proportion of young people and an increase in the elderly. As a result of all the abovementioned factors the graph now has a beehive shape.

Forecasts for 2050 point to a T-shaped «pyramid» with a narrowing base and upward slew, as a result of the falling birth rate. In other words the over 65s are growing while the lower age brackets shrink, due to the drastic fall in the death rate.

Spanish population pyramid

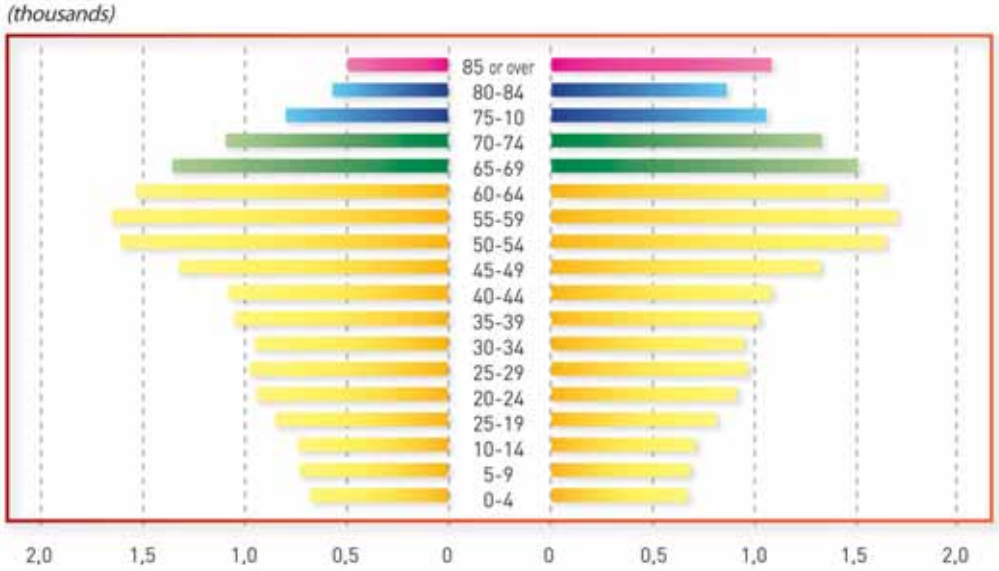
Year 2004

Source: ICEA – Drawn up from INE figures and forecasts.



Year 2025

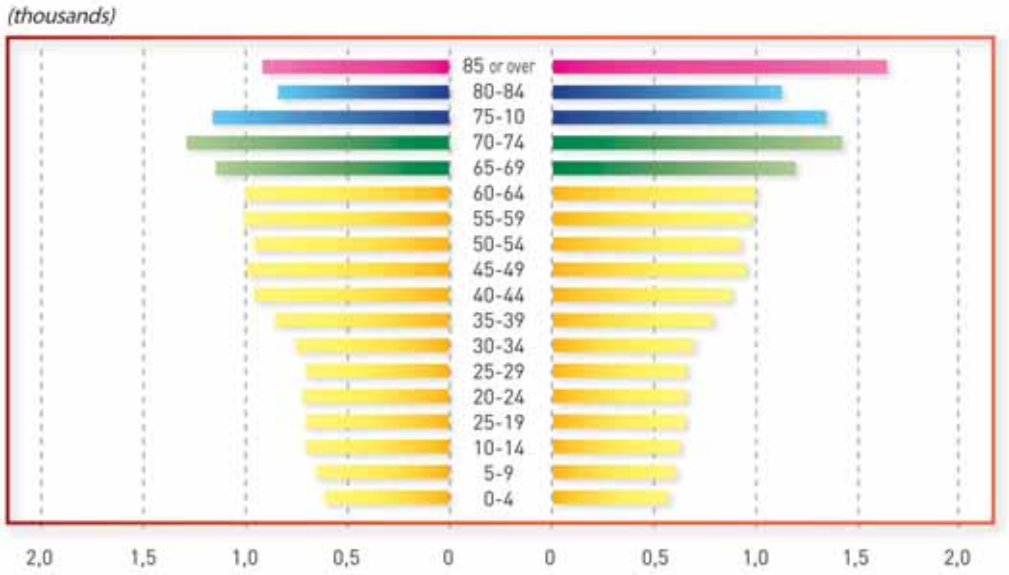
Source: ICEA – Drawn up from INE figures and forecasts.



Spanish population pyramid

Year 2050

Source: ICEA – Drawn up from INE figures and forecasts.



The above pyramids refer to the Spanish population trend throughout the twenty first century. As for the world as a whole, current estimates point to a 50% increase from here to 2050, with the highest growth rates being recorded in Africa, Asia and Latin America. Warning voices have been raised about this situation and the possible effects.

Effects of population ageing

While the world's population as a whole will be growing, Spain's will be going through an ageing process. *Prima facie* this should not be much of a problem since improvements in medicine and pharmacy will ensure a better quality of life. There is no room for complacency, however, and a blind eye cannot be turned to certain effects:

- Dependent Population

The existence of people needing a higher degree of attention than the rest, even becoming totally dependent for carrying out their vital functions, is not a new problem. Whether a newborn baby, a sick person or an elderly person, there are many cases in which people have to spend part of their time looking after others. This is known as *protección a la dependencia* (dependency protection) in Spain or long-term care in Europe.

As Professor Rodríguez Cabrero points out, this task, invariably the responsibility of women, is unremunerated and barely acknowledged in society. The European social model is characterised by the recognition of a subjective right to protection in situations of functional dependency in daily activities, by means of allowances or services, as the case may be. These protection arrangements are then managed in a decentralised way

WITH POPULATION AGEING, THERE IS A GROWING NEED FOR LONG-TERM-CARE WORKERS; THIS WILL TURN GRADUALLY INTO A SOURCE OF EMPLOYMENT

THE OVER-80 SHARE OF THE POPULATION WILL TRIPLE BY 2050, RISING FROM 4% OF THE POPULATION TO 11-12% IN THE OECD COUNTRIES

under a system of state regulation and mixed public-private funding.

Changes in woman's social role, her incorporation into the job market and the reduction in size of the family unit are all depriving this traditional model of the manpower to sustain it. There is now therefore a growing need for long-term-care workers; this will gradually turn into a source of employment, both national and international, with different skill grades to suit the attention needed. These workers could be drawn from currently inactive or underemployed groups.

Recommendation 98 of the Committee of Ministers to the Member States of the European Union included a definition of dependency, which has been duly incorporated into Spanish law in Act 39/2006 on the promotion of personal autonomy and attention for persons in a situation of dependency (*Ley de promoción de la autonomía personal y atención a las personas en situación de dependencia*). This has facilitated the creation of the National Dependency System (*Sistema Nacional de Dependencia*). This public initiative had been rounded out by the development of insurance products including these new coverage arrangements, in an attempt to meet this growing demand in the broadest way possible.

- Non-dependent Population

The over-80 share of the population will triple by 2050, rising from 4% of the population to 11-12% in the OECD countries. Although many of these people will be dependent on others to a lesser or greater degree, many others will be hale enough to cater perfectly for themselves.

This increase of life expectancy means that people will have a longer post-retirement lifespan, thereby generating a demand for leisure to fill this time.

But this increase in free time will not be matched by an equivalent increase in spending power, since the public retirement pension is less than most working salaries. The pension rates in Spain, as a percentage of gross salary, are among the highest in Europe at 81%, well above the 60% figure of Finland and dwarfing the 38% of Ireland and the 30% of the United Kingdom.

The current economic crisis has a twofold and simultaneous effect of increasing the state's burden of unemployment benefits while reducing its solvency for paying out social subsidies. This does not mean that the model is about to collapse but this situation has sparked off a social debate about the ongoing viability of this model, which would now seem to be unsustainable in view of the current top-heavy shape of the population

pyramid. Delaying of the retirement age is mooted as a possible solution to this problem in the media and on social networking sites, something that is in fact already being tried in countries like Germany.

There are many effects of this situation. We can sum them up as follows:

–Sociological effects

Today's society is obsessed with competitiveness. Young people are fast-tracked into positions of responsibility that their callowness has hardly prepared them for. The future increase in the average age of the population will probably lead to a slackening of this trend. We will have to get used to the fact that population ageing will be more of a demographic than a biological phenomenon, as the downsides of ageing are offset by medical advances and healthier living habits.

–Consumer effects

Whether or not world production can feed a growing population is currently a burning issue. Furthermore, the diet is changing. Leisure is changing too, with a greater presence of technological gadgets both in the home and outside.

–Economic effects

Public pension systems will have to look for formulae that strike the right balance between a dwindling paying-in population and a swelling taking-out population.

Private saving systems will play a key role in filling the gaping holes likely to open up in the public systems. Current consuming and saving patterns will therefore have to be revised on both an individual and collective basis. If saving has to increase, spending has

to fall. Another solution might be to seek an increase in productivity to fuel a sharp rise in salaries.

The Role of Risk Management in Population Ageing

The situation outlined above begs certain questions:

I. Is population ageing a systemic risk or will it become one in the future?
II. What risks lie ahead for companies and organisations?
III. What could Risk Management bring to the equation?

I. Is population ageing a systemic risk or will it become one in the future?

Systemic risk means a risk affecting the whole market, from which no one agent can single-handedly shield itself. The financial upheavals of recent years have brought this concept to the fore, as far as the financial markets are concerned. It has by now become accepted that this risk may arise from variables outside the models actually under study.

As far as companies and organisations are concerned, just as a grave economic crisis may change a company or institution or even

THERE IS A SOCIAL DEBATE ABOUT THE ONGOING VIABILITY OF NOWADAYS MODEL, WHICH WOULD NOW SEEM TO BE UNSUSTAINABLE IN VIEW OF THE CURRENT TOP-HEAVY SHAPE OF THE POPULATION PYRAMID

A SUBSTANTIAL CHANGE IN THE FACTOR OF PRODUCTION «LABOUR» ANALYSED FROM THE VARIABLE «AGE» COULD THROW OUT OF KILTER THE CURRENT RELATIONSHIP BETWEEN EMPLOYER AND EMPLOYEE

drive it to the wall, then a substantial change in the factor of production «labour», analysed from the variable «age», could, on our understanding, throw out of kilter the current relationship between employer and employee.

The report *Global Risks 2010 of the World Economic Forum* breaks down global risks into five main groups:

1. Economic risks: Food price volatility, oil price spikes, fiscal crises, asset price collapse, etc.
2. Geopolitical risks: International terrorism, nuclear proliferation, transnational crime and corruption, conflicts with certain countries, etc.
3. Environmental risks: Extreme rainfall, droughts and desertification, water scarcity, air pollution, etc.
4. Societal risks: Pandemic, infectious disease, chronic diseases, migration, etc.
5. Technological risks: Nanoparticle toxicity, data fraud/loss, critical information infrastructure (CII) breakdown.

Up to 35 concepts are itemised and vetted as global risks. Societal risks concentrate on health and the affects thereon of diseases, on the assumption that their eradication would reduce this risk and thereby boost life expectancy.

But population ageing does not feature there as a global risk. Might it be possible for a new fit to be found solely through migratory movements?

II. What risks lie ahead for companies and organisations?

In the current crisis situation, tackling a problem that lies 40 years down the line might seem like a profligate waste of resources in a period of scarcity. But 40 years ago there were other problems that seemed far off in the future and now hog the headlines: oil shortages and problems of pollution. Could action have been taken earlier to ward off the expected effects?

Current research into population ageing has thrown up certain immediate risks for companies and organisations:

–Misfit between jobs, workers and working hours

Advancing age entails falling physical capacity. The older they get, *ceteris paribus*, the less productive workers will be in their jobs. On the other hand, they will be more experienced in carrying out their tasks.

Tasks may need to be distributed differently. As the ageing worker's physical capacities decline, a new balance has to be struck between what this person can contribute and the needs of the firm.

As regards working hours, the current trend is towards a gradual reduction of working time for the whole set of workers, so the special case of an older workers has to be factored in.

–Knowledge transfer

Working skills are acquired and honed with experience; the correct performance of working tasks calls for a worker to be given the right training. Older workers are a treasure trove of this experience and it would be a grave fault for any firm not to draw up knowledge management plans.

–Reduced worker motivation

If the new generations joining the job market are faced with the prospect of having to work longer or increase their contributions to public pension and private schemes, especially current generations, this will reduce their motivation and make them less productive.

III. What could Risk Management bring to the equation?

The idea of ERM involves a management of the risks that might affect the firm. The Risk Management methodology might therefore spark off a higher awareness of the problem. This does not entail a revolution in the processes but it would mean a first step towards ascertaining the current structure of human resources and their likely development in the future. Further down the line, a detailed analysis would have to be made of the various concepts characterising each group and the way they might affect each firm or organisation.

Risk Management is a sequential scheme for identifying, assessing, controlling and reducing risks. Company management would have a new concept in its Risk Management armoury, affecting the whole firm across the board and certain areas in particular, depending on the average age of the section concerned. Consideration could also be given to risk transfer by subcontracting personnel; this would call for an additional analysis.

In the short term the population-ageing risk has a very low likelihood of occurring but this probability will increase with the years. The severity of its affect will depend on the concentration of workers from the same age bracket in a given department or in the firm as a whole. This should prompt proper management of human resources under the particular spectrum and methodology of risk management.

After this first stage in managing the ageing risk, the proposals for starting to reduce the risk could begin with:

–Drawing up a retirement plan by activities

It stands to reason that intellectual activities entail less bodily wear and tear than physical activities, even though the former activities also pose their own risks, such as an overly sedentary lifestyle. Clear and explicit legislation would enable working life to be arranged to suit, choosing from among the various alternatives on the basis of an additional variable, the age of the worker concerned.

Workers in Spain can currently opt for early retirement, with a corresponding reduction in their social security benefit entitlement. In the case of a hypothetical increase in the legal retirement age, workers could be allowed to continue working in some activities only, with a reduction in their working hours and wage. This would guarantee them some income-generating continuity.

–Reengineering of processes

Companies and organisations need to take on board the fact that productive structures are bound to change in the medium term, driven either by the demand for goods and services or by the job market. One possible solution might be shift working.

THE RISK MANAGEMENT METHODOLOGY MIGHT SPARK OFF A HIGHER AWARENESS OF THE PROBLEM OF POPULATION AGEING

There are many groups of workers who might be interested in shift working: elderly people, students, housewives, men and women with children, unemployed persons, etc., who need to work part time.

Companies could design a shift-working system with two persons working five hours instead of a single person working 8 hours, allowing an extension of the customer attention time, for example.

Possible consequences: total productivity would be boosted due to the increase in performance hours. This solution would also be favourable to the much vaunted need of harmonising working and personal lives. It is obvious that wages would have to be reduced in line with the reduced hours.

But this way of working requires companies to design jobs and shifts to suit the workers involved; this would in turn call for the firms to allow for long term changes in the organisational and functional structure.

–Guarantee the transfer of knowledge

The reengineering of processes calls for the creation of induction training handbooks and top-up training thereafter. The workers' input would then be twofold: not only the added value in carrying out the designed tasks but also the generation of knowledge on the basis of those tasks. All this would be conducive to an improvement of products and services and the production process itself.

The company has to ensure that older workers pass on their knowledge to the newcomers, even in shift systems such as the one described above.

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–Review of the productive structures

Firms may mistakenly believe that they will automatically cut costs if they replace more expert workers by younger workers earning a lower wage, or even a token amount in the case of interns and other similar work-experience arrangements. There is no guarantee of this, however.

What will really enable firms to outperform their competitors is suitable strategic planning, research, development, innovation, for all of which the input of expert workers is paramount. Structures have to be altered in search of increased productivity, doing so by redesigning the business models and the approach to suit variable market circumstances, including the job market.

These are some of the examples that could serve as starting points for the task in hand. We understand that the sheer heterogeneity of firms, organisations and activities means that a detailed study would be necessary of each particular case. Any attempt to apply a single-fit solution would be of little avail or might even prove counterproductive.

The above account gives us an idea of the scope and implication of population ageing in terms of the many complex risks it might entail for the system as a whole. Could we then claim that population ageing is a systemic risk? And, if so, are we up for the challenge?

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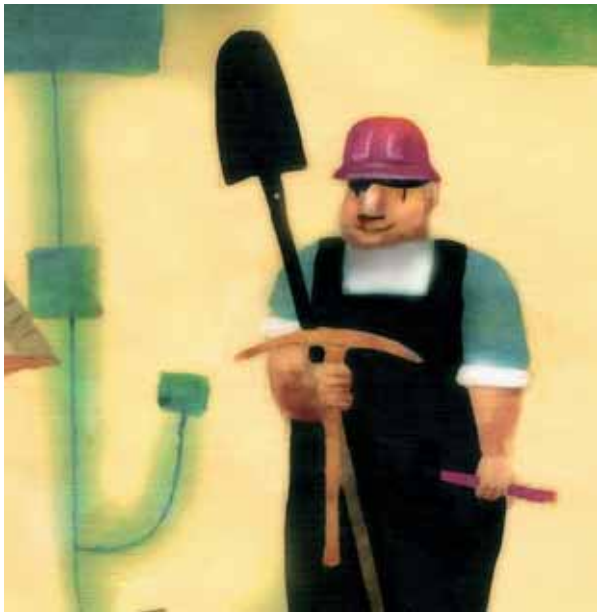
Occupational Health and Safety Management system according to OHSAS 18001

Prevention will be considered to have been integrated into the management and performance of any activity if its execution procedure has been determined and is applied with due abidance by the established «preventive requisites» (and not only the production requisites) and if the individuals intervening in the management and performance thereof are in due possession of the necessary training and information for fulfilling their duties.

MAPFRE SERVICIO DE PREVENCIÓN



The benchmark legislation on the Prevention of Occupational Risks stipulates that the preventive activity should be knitted into the whole firm's structure, from top to bottom, guaranteeing the positive result of its implementation and allowing an objective assessment to be made of its degree of effectiveness. This implies a systematisation of the way of working, defining the characterising features thereof that safeguard the health of the firm's workers.

By law firms are bound to set up a management system for controlling any risk workers may be exposed to and safeguarding their health. It does not stipulate what this system must be like, but in recent times the one that has been most successful and, *ipso facto*, most often used is the OHSAS 18000 System, which, paradoxically, does not have the status of an ISO standard.

To fully grasp what this management system implies, we first need to clear up some concepts.

I. Occupational health and safety management system according to OHSAS 18001 and 18002

- SYSTEM: A set of elements (means or resources) which act and interrelate in pursuit of an object.
- MANAGEMENT OF AN ACTIVITY: This implies its planning, organisation and control of its execution to achieve the desired object (with efficient use of available resources).
- PROCEDURE (written or otherwise): Is understood as a specified way of carrying out an activity: what should be done, how should it be done, when should it be done, who should do it,…
- PROCESS: To facilitate management thereof, the various activities making up an activity, more or less complex, can be grouped into processes, convergent or concatenated, the latter being, therefore, a set of successive phases of a specific activity or several activities.
- COMPANY MANAGEMENT SYSTEM: Every firm has an object and carries out an overall activity in its pursuit; the system set up to manage this activity (normally complex) is called the company management system.
- OCCUPATIONAL HEALTH AND SAFETY MANAGEMENT SYSTEM: Is that part of the company's management system responsible for safeguarding workers' health and controlling working conditions to ensure that said conditions do not pose an unacceptable risk for said workers.

The efficacy of preventive activities is

THE OHSAS STANDARDS ON THE MANAGEMENT OF OCCUPATIONAL HEALTH AND SAFETY (OH&S) AIM TO FURNISH ORGANISATIONS WITH THE ELEMENTS OF AN EFFICIENT OH&S MANAGEMENT SYSTEM AND TO HELP ORGANISATIONS ACHIEVE ECONOMIC AND OH&S OBJECTIVES

conditional upon their integration into the overall organisation of the company. In 1977, when the Prevention Services Regulation (*Reglamento de los Servicios de Prevención*) was passed, its article 1, laid it down that:

«The prevention of occupational risks, as an activity to be carried out within the firm, shall be integrated into its whole set of activities and decisions … Integration of prevention into all the various levels of the firm, from top to bottom, involves across-the-board acceptance of the obligation of including risk prevention in any activity carried out, directly or indirectly, and in all decisions taken».

And it goes on:

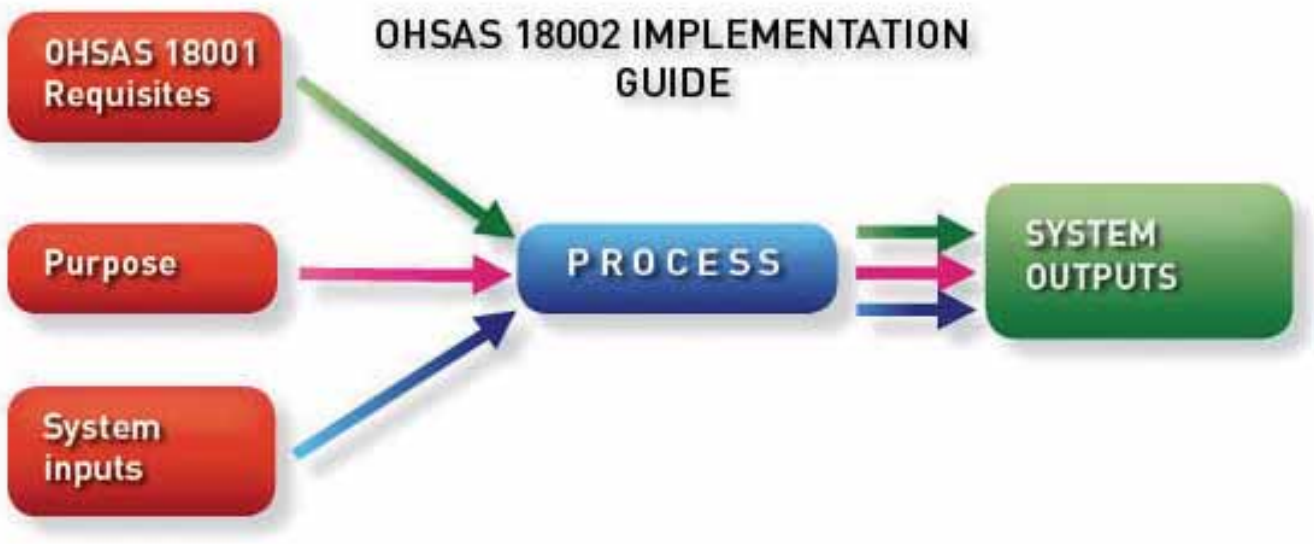
«…prevention shall be integrated into the technical processes, into the work organisation arrangements and into the conditions under which this work is performed».

Act 54/03 for Reforming the Legislative Framework of Occupational Risk Prevention (*Ley de Reforma del Marco Normativo de Prevención de Riesgos Laborales*) clearly and repeatedly expresses among its objectives the reinforcement of the integration of the preventive activity as a whole. Article 16, for example, among many others, lays it down in its section 1 that:

«The prevention of occupational risks has to be integrated into the company's general management system, throughout the whole set of its activities and at all levels thereof, by implementing and enforcing an occupational risks prevention plan…».

The OHSAS standards on the management of occupational health and safety (OH&S) aim to furnish organisations with the elements of an efficient OH&S management system, which can be knitted into the other management requisites, and to help organisations achieve economic and OH&S objectives.

OHSAS specifies the requisites for an OH&S management system, enabling any organisation to draw up and implement a policy, and also establishes some objectives that take into account legal requisites and information on the risks posed for OH&S. It aims to be applicable to all types and sizes of organisations, including small and medium-sized firms, whatever their activity may be.



The success of the system depends on across-the-board commitment throughout the whole organisation, especially among senior management. A system of this type allows organisations to set up an OH&S policy, establish objectives and processes for achieving the aims of this policy, take the necessary actions for improving their performance and demonstrate the conformity and efficacy of the management system. The success of this system depends on across-the-board commitment throughout the whole organisation, especially among senior management.

The OHSAS 18000 management system is a management tool based on the methodology known as PDCA (plan-do-check-act):

- Plan: Establish the objectives and processes necessary to deliver results in due accordance with the organisation's OH&S policy.
- Do: Implement the processes.
- Check: Monitor and measure the processes against the OH&S policy, the objectives, goals and legal requisites and other requisites, reporting on the results.
- Act: Take actions for ongoing improvement of the performance of the OH&S management system.

The OHSAS standard contains requisites that can be objectively audited; nonetheless it does not lay down absolute requisites for OH&S performance over and above the commitments included in the OH&S policy, of compliance with the applicable legal requisites and the other requisites that the organisation subscribes to for safeguarding its workers' health and ensuring continuous improvement.

In sum:

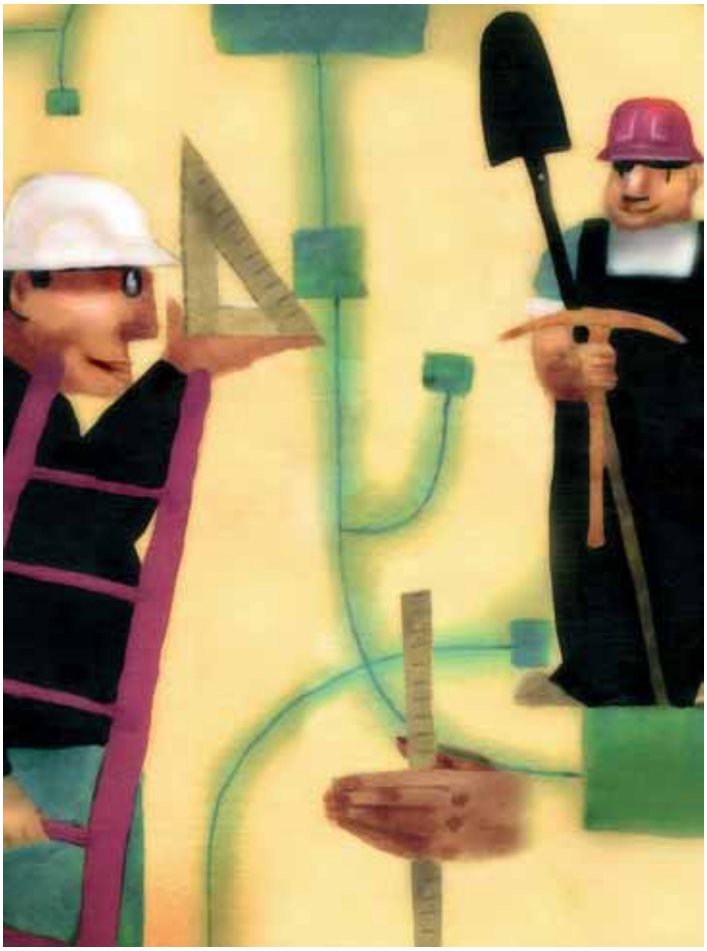
- Integration of the prevention of occupational risks within any organisation aims to encourage a proactive and responsible attitude towards health and safety at all levels of the firm, with the participation of all its personnel in preventive tasks and in the management of the risk itself, the adoption of preventive and corrective measures and the promotion of safe attitudes and behaviour as part and parcel of a process of ongoing improvement. The OHSAS standard acts as a tool for managing the preventive activity and achieving these goals in a structured and satisfactory way.
- The OHSAS standard provides a model of a proactive system for managing health and safety in the workplace. As a minimum requisite this is to be done with due abidance by the law and then with additional observance of any other requisites that the firm itself has undertaken to fulfil. It defines an organisational structure (functions and responsibilities), the planning of the preventive activity, the processes, procedures, necessary resources, records,… for drawing up and implementing in an objectively audited manner a health and safety policy approved by company management and all members thereof. This policy will then be periodically reviewed as part of a continuous improvement process.

Once the management handbook has been defined and approved it has to be implemented. All

members of the organisation are bound to familiarise themselves with the risk management system to ensure that the preventive culture imbues all their daily activities, each according to the level of his or her skills. They then have to carry out the preventive activity, watching out for correct operation of the system and making sure it keeps apace with working conditions as they change over time. This will involve setting up various training sessions for the whole organisation, each one planned to suit their established OH&S responsibilities and activities. The system also has to be periodically checked to vet its efficiency and ensure that the established principles and procedures are actually being followed.

Finally, the organisation may wish to have the OH&S management system objectively assessed and certified by an impartial and independent body. This external assessment of the system offers the organisation several advantages: certification by the labour authority of the integration of prevention and legal compliance with its responsibilities; eligibility for reductions in some insurance premiums related to this matter; it enhances the company's image among its clients and the whole society and improves the social climate of the firm itself and its productivity, representing as it does an achievement for all members to ensure that risks are managed and their occupational health is protected.

THE OHSAS STANDARD PROVIDES A MODEL OF A PROACTIVE SYSTEM FOR MANAGING HEALTH AND SAFETY IN THE WORKPLACE



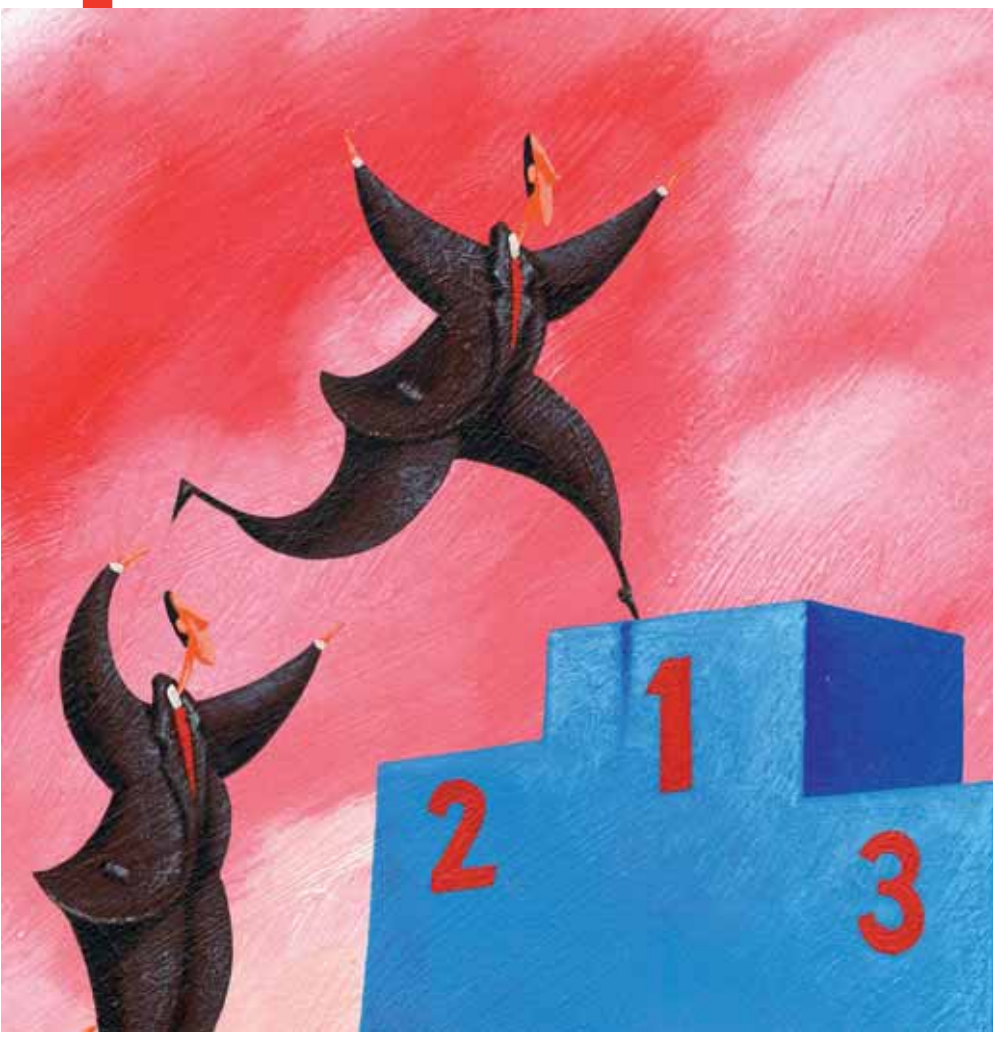
II. Action phases

The establishment of a management system based on the OHSAS standards has to be broken down into various phases, comprising the drawing up of an OH&S management handbook according to the OHSAS 18001 model, approval thereof by company management and subsequent implementation and internal audit (by way of a pre-audit). The system is then certified by means of an external audit by an OH&S certifying firm. All these phases will be duly timetabled to ensure practical implementation in the company in a coherent and harmonised manner with the company's other management systems.

The outline below gives a nutshell account of the various phases involved in establishing an OHSAS 18000 management system:

		DRAWING UP THE OHSAS 18001 MANAGEMENT SYSTEM	TIMETABLE
PHASE I	MANAGEMENT SYSTEM HANDBOOK	DATA TAKING VISIT/S	All phases should be set progressively according to a timetable established by the company
		INITIAL DIAGNOSTIC REPORT	
		DRAFT OF THE OHSAS 18001 MANAGEMENT SYSTEM	
		OHSAS 18001 MANAGEMENT SYSTEM	
PHASE II	SYSTEM IMPLEMENTATION	TRAINING PLAN AND SCOPE	
		MONITORING AND IMPLEMENTATION VISITS	
PHASE III	INTERNAL AUDIT	CONTROL VISITS INTERNAL AUDIT REPORT	
PHASE IV	CERTIFICATION	EXTERNAL AUDIT BY CERTIFYING BODY	
		CERTIFICATION	
PHASE V	CERTIFICATION MAINTENANCE	EXTERNAL AUDIT BY CERTIFYING BODY	

European Non-Life *Insurance Groups'* RANKING 2009



For the sixth consecutive year, FUNDACIÓN MAPFRE issues its report «European Non-Life Insurance Groups' Ranking», this time for 2009. It is based on the premium volume that each group reached in 2009 in this line of business in all of the countries where they operate. The data come from yearly reports published by the companies themselves.

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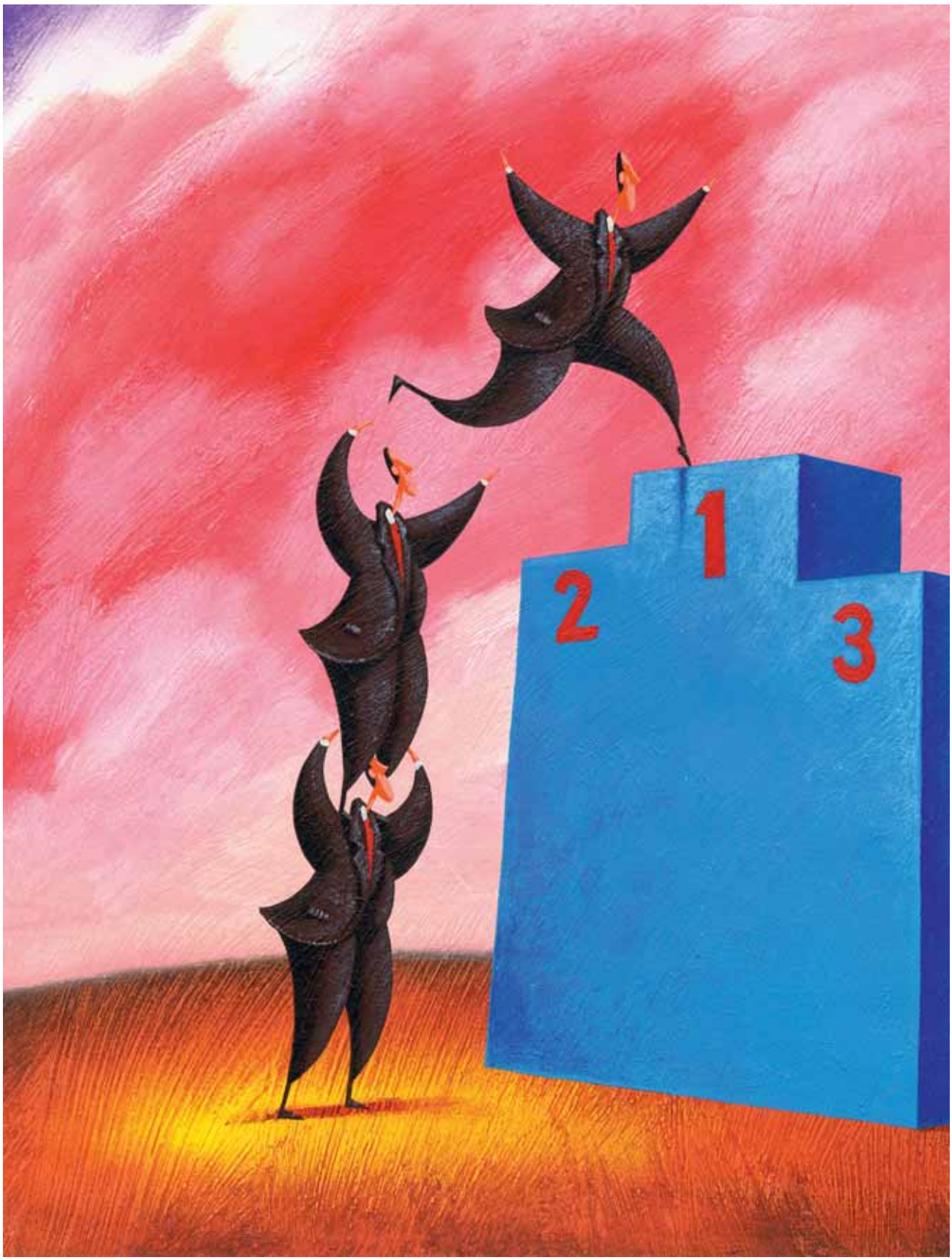
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Millons of euros

EUROPE´S LARGEST NON-LIFE GROUPS IN 2009
Ranking by gross premiun volume

Nº	Group	Country	Non-life premiums		% ▲	Combined ratio[1] %		RANK
			2008	2009		2008	2009	2008
1	ALLIANZ	Germany	43.387	42.523	-2,0	95,4	97,4	1
2	AXA	France	28.851	29.015	0,6	95,5	99,0	2
3	ZURICH	Switzerland	25.369	24.534	-3,3	98,1	96,8	3
4	GENERALI	Italy	21.990	21.636	-1,6	96,4	98,3	4
5	EUREKO	Netherlands	15.075	14.647	-2,8	95,6	96,8	5
6	MAPFRE	Spain	10.891	11.900	9,3	93,9	95,7	8
7	TALANX	Germany	10.893	11.600	6,5	95,2	96,6	9
8	AVIVA	United Kingdom	15.033	11.207	-25,5	98,0	99,0	6
9	ERGO	Germany	10.562	11.182	5,9	90,9	93,1	10
10	GROUPAMA	France	9.988	10.331	3,4	98,7	105,9	7
	Total first 5		134.672	132.354	-1,7			
	Total first 10		192.039	188.574	-1,8			

Source: done by FUNDACIÓN MAPFRE with data from consolidated financial reports (under NIF criteria).

[1] The Combined Ratio is the one provided by each company in its eamings report. In those cases where the Non-life ratio and the Health ratio are given separately, we have used the Non-Life ratio.

Methodology

1. The ranking was prepared using gross premium volumes (direct insurance plus accepted reinsurance) in Non-Life branches. It should be noted that the ranking does not include Health insurance premiums that are assigned to the Life[1] branch, but it does feature those which are classified as part of Non-Life or explicitly differentiated.
2. Due to application of IFRS 8, some groups have varied the operating segments about which they provide separate information, causing difficulty in obtaining part of the figures analyzed in earlier editions of this ranking. However, whenever possible the criterion used in previous years has been retained. In the case of Groupama, which has stopped publishing information on the Life and Non-Life segments, premiums from the Property-Casualty segment have been added to

[1] In general, in those cases in which Health insurance generates mathematical provisions, this branch is classified as part of Life.

those of Health insurance. For comparative purposes, the premium volume for 2008 that was included in the last ranking[2] has changed, but not the position held by this group.

3. Groups whose main line of business is reinsurance are not included in the ranking. The criterion is to include accepted reinsurance premiums from groups that have reinsurance units but do not rely on them as their main line of business. However, note the special case of Talanx, whose Non-Life Reinsurance premiums practically equaled its direct insurance premiums in 2009.

4. The earnings figures refer to the Non-Life sector, before taxes and minority interests.

5. The report uses the term «operating result» to refer to earnings from insurance activities, including revenue from investments linked to this line of business. Losses or gains from other investments are included under the heading «non-operating result».

6. The information on solvency levels that appears in the annexes refers to all of the operations carried out by each group. The figure refers to the number of times the group has met the mandatory solvency requirement.

7. For comparative purposes, we have updated revenue and earnings figures for 2008 that were published by the groups in their annual reports for 2009.

8. For the euro conversions of figures expressed in other currencies, we have used the

[2]The premium volume published was 10,964 million euros, and the modified one is 9,988 million.

average exchange rates in 2008 and 2009, as per the following table.

EURO/1 UNIT	2008	2009
Pound sterling (GB)	1.260	1.124
US Dollar	0,683	0,718

General comments

Some highlights of the 2009 ranking:

- As economic difficulties and fierce competition in markets continued, increases in premium volumes were due in general to rate increases in some lines of insurance, higher revenues from international business and, to a lesser extent, acquisitions. Automobile insurance remained the branch hardest hit by fierce competition and the effects of the economic crisis, with a significant decline in new registrations and purchase of less coverage.

- Except for Zurich, all groups saw their combined ratios go up as a result of an increase in claims. Several factors help explain the increase: natural disasters in Europe; lower release of technical reserves; and a decline in premiums in some branches.

- As for natural disasters, the most significant one was Hurricane Klaus, which affected France and Spain in January. The earthquake in L'Aquila in Italy (April), flooding in central and eastern Europe in June and bad weather in general late in the year also pushed claims higher.

- In Italy, the Automobile segment continues to be affected by the so-called Bersani Law, which significantly trims the discretionary power of the «Bonus Malus» system. The Bersani decree states that a driver of an insured vehicle has the right to request that the same discount level be applied to any additional third party liability policy he or she takes out. Even more importantly, the decree establishes that the discount must be applied to vehicles bought by other members of the insured's family. The «Malus» is applied only if the driver is the «main» responsible party in an accident.

- After hefty accounting adjustments made in 2008 because of declines in asset values and losses from divestments –attributable to the

[3] See section on Methodology.

AUTOMOBILE INSURANCE REMAINED THE BRANCH HARDEST HIT BY FIERCE COMPETITION AND THE EFFECTS OF THE ECONOMIC CRISIS, WITH A SIGNIFICANT DECLINE IN NEW REGISTRATIONS AND PURCHASE OF LESS COVERAGE

crisis on financial markets– in 2009 the changes were considerably smaller and in some cases the decline in assets was reversed.

The top five spots in the ranking remained unchanged, with the first change coming in the sixth, taken over by MAPFRE after it rose by two. It was followed by the German group Talanx, which also rose two rungs, and Aviva, which fell by two because of a 25.5% fall in premiums (-16.5% in local currency). The French group Groupama slipped three spots to 10th place[3]. The Ergo group rose from 10th to ninth position.

Premium revenues for the top 10 European Non-Life insurance groups fell 1.8% in 2009 compared to the previous year and came in at 188,574 million euros. Half of the groups registered premiums decline, and the other half revenue increase. MAPFRE showed the biggest increase (9.3%) and Aviva the largest drop (-25.5%). In the case of MAPFRE, growth was driven by international business and reinsurance, along with Homeowner's and Health insurance in Spain. The decline showed by Aviva (-16.5% in local currency) was due mainly to the fact that early in the year the group sold a minority stake in its Dutch unit, Delta Lloyd.

Zurich is the only group that improved its combined ratio in 2009, to 96.8%. This stemmed from a 1.6 percentage point improvement in the claims ratio, thanks to higher rates and an improvement in large loss events as a result of the group´s risk selection strategy and the absence of major natural disasters. Ergo continued to have the best combined ratio at 93.1%[4], thanks to the fact that its business in Germany still posts a ratio below 90%. MAPFRE has the second best combined ratio at 95.7%, despite a rise in claims in the Spanish market as a result of a contraction in net earned premiums.

The almost across-the-board worsening of the combined ratio was caused by an increase in the claims ratio as a result of natural disasters and bad

[4]Figure drawn from Annual Report of Munich Re and referring to the entire Property-Casualty segment.

MAPFRE'S GROWTH WAS DRIVEN BY INTERNATIONAL BUSINESS AND REINSURANCE, ALONG WITH HOMEOWNER'S AND HEALTH INSURANCE IN SPAIN

weather in Europe late in the year. In general, the evolution of claims corresponding to previous years was better than that stemming from claims during 2009 itself.

The net result was favored by smaller accounting adjustments of asset values, which in some cases offset the worsening of the operating result. The following table shows the results from the last three years, so as to illustrate how they have evolved since the financial crisis began. The new segmentation of the Ergo group does not feature separate information on Non-Life branches, so this group was not included in the table. An analysis of these data leads to the conclusion that, although results rose 12% in 2009, they are far below those of 2007. Three of the nine groups surpassed the profit levels posted in 2007: MAPFRE, Aviva and Eureko.

Millions of euros

NON-LIFE RESULTS[1] 2007-2009

GROUP	2007	2008	2009	% Var. 2008 / 2009
ALLIANZ	7.261	5.936	4.142	-30,2
AXA	3.336	1.419	2.692	89,7
ZURICH	3.022	1.472	1.878	27,5
MAPFRE	1.105	1.199	1.149	-4,1
AVIVA	1.033	-134	1.078	–
GENERALI	2.461	1.531	841	-45,1
TALANX	1.006	379	992	161,7
EUREKO	437	-123	601	–
GROUPAMA[2]	656	334	88	–
TOTAL	**20.317**	**12.014**	**13.461**	**12,0**

Source: Done by FUNDACIÓN MAPFRE with yearly reports.

[1] Result before taxes and minority interests.

[2] Property Casualty segment result.

FUNDACIÓNMAPFRE

responds to the sense of social responsibility which is a basic principle behind MAPFRE's business activities. It was founded in 1975.

The Insurance Sciences Institute of FUNDACIÓN MAPFRE was created to promote educational and research activities concerned with the world of insurance and risk management.

Gerencia de Riesgos y Seguros

ENGLISH APPENDIX

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