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trébol

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editorial

It is an old maxim of the stage that, no matter how many accidents and calamities, the show must go on. In the corporate world, Business Continuity Plans are already a part of global strategies. In an article for **trébol**, Lionel Güitta, Assistant Director of Business Continuity and Contingency at MAPFRE, sets out the steps insurance companies should follow to involve all their staff, departments and business areas in identifying priorities and mutual dependencies so that the organisation can react efficiently in the event of disaster.

Iberian ham is a delicacy produced only in Spain and Portugal from pigs of the Iberian breed, reared and fed in the peninsula's characteristic green, oak-tree-dotted dehesas. To avoid mix ups when eating or buying ham, the article by José Vilches, an authority on the industry, is a must read. The ham business, valued at EUR 1.88 billion by total revenue, is beginning to look up after several years of drastic adjustment after the global economic crisis. Already there are signs of short supply of raw materials and sharply increasing prices of fresh produce.

Information is power, goes another famous adage. And if it is reliable, orderly and available, it becomes a formidable instrument. Gregorio Izquierdo has been president of the Spanish National Statistics Institute since 2012 and previously taught statistics and economics at university. Responding to the strong demand for information in all sectors of society, he is deploying new IT-based communication channels to offer the public statistical data on trends and developments in Spain quickly and serviceably.

Macroeconomics does not correlate with a population's standard of living but its upturns and downturns do end up affecting people's daily lives. The investment advisor Ignacio de la Torre finds clear similarities between Germany's position in 2004 as a decidedly exporting nation, and Spain's economy in 2014, where signs of a change in cycle are already becoming apparent. His reports are highly regarded outside of Spain and the truth is monetary flows are getting bigger. We truly hope he is right!

Disasters and Business Continuity Plans in insurance companies



Lionel Güitta
Assistant Director of Business Continuity and Contingency
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Globalised world, complex business environment

The world is currently globalised and therefore companies have multiple interdependencies and connections with other companies - both clients and suppliers of goods and services.

There are multiple threats in this complex environment, some of which, if they materialised, could affect not only the survival of the company that undergoes them, but also its entire network, as well as third parties that are directly or indirectly related to it.

Concerns about protecting companies against disasters emerged, first and foremost, in computing, when people became aware of the impact of technological failures -resulting in business interruption or data loss- on enterprises.

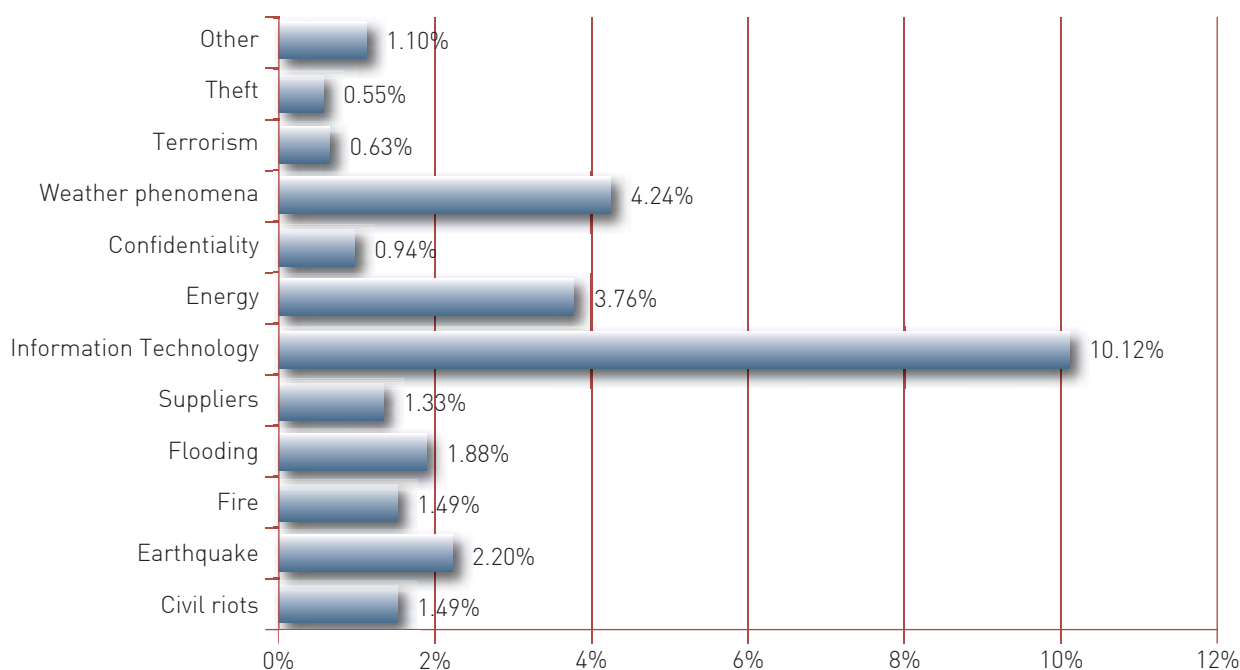
Nowadays, all companies make backup copies of the information stored on their servers or have alternative solutions that would allow them to recover their information processing capacity via alternative data processing centres, whether their own or outsourced.

Concerns about protecting companies against disasters emerged, first and foremost, in computing, when people became aware of the impact of technological failures -resulting in business interruption or data loss- on enterprises

Disasters also happen in insurance companies: Has your company had to activate the Business Continuity Plan (BCP) in the last year due to any of these reasons?

Drafted in-house.

Source: 2011-2012 Global Business Continuity Management Program Benchmarking Study (Insurance Segment Report). Continuity Insights/KPMG.



The study was conducted between November 2011 and January 2012, with answers from 685 officers of organisations located in over forty countries, a quarter of these located outside of the USA. The results shown refer exclusively to companies in the insurance sector, which make up 10.6% of the companies participating in the study. Information Technology is the principal trigger for business continuity plans, and this includes scheduled lapses in service due to updates, maintenance and change management, as well as unscheduled interruptions due to virus attacks, denied access or communications.

Once a disaster has occurred, fully restoring a company's operations is a complex undertaking; an analysis must thus first be conducted to determine the order in which the processes should be recovered, the minimum time required for their recovery and the resources needed

However, disasters of different types and magnitudes have led companies to understand the need not only to guarantee technological recovery, but also to ensure they can continue operating their business processes and all associated resources, such as infrastructure, workstations, personnel and supplier networks.

In order to guarantee the recovery of a company's business processes after a catastrophic event, we must work in «normal times» to analyse, design and implement solutions that will enable it to recover in «times of disaster». These solutions span not only preventive or mitigating measures,

but vital measures that can be deployed if the company is put out of action due to the magnitude of a disaster, maintenance shortcoming, calculation error or any other cause. They may include alternative physical locations, training employees in other areas of the business, reassigning tasks or having duplicate suppliers.

Clearly, once a disaster has occurred, fully restoring a company's operations is a complex undertaking; an analysis must thus first be conducted to determine the order in which the processes should be recovered, the minimum time required for their recovery and the resources necessary



to provide a minimally acceptable quality of service. Then solutions that will enable the company's response to the disaster will be developed: plans for recovering activity, communication plans, testing and training plans.

In recent years several international standards have been defined pertaining to business continuity to help organisations manage key factors for guaranteeing, as far as possible, a company's resilience in the face of disaster. The most recent international standard was published in May 2012: «ISO 22301 Societal Security - Business Continuity Management Systems - Requirements».

As regards the financial sector -and, specifically, the insurance sector- the regional or national regulator requires that companies guarantee their business continuity. Thus we can see how, in Europe, the Solvency II directive mentions the need to guarantee operational continuity:

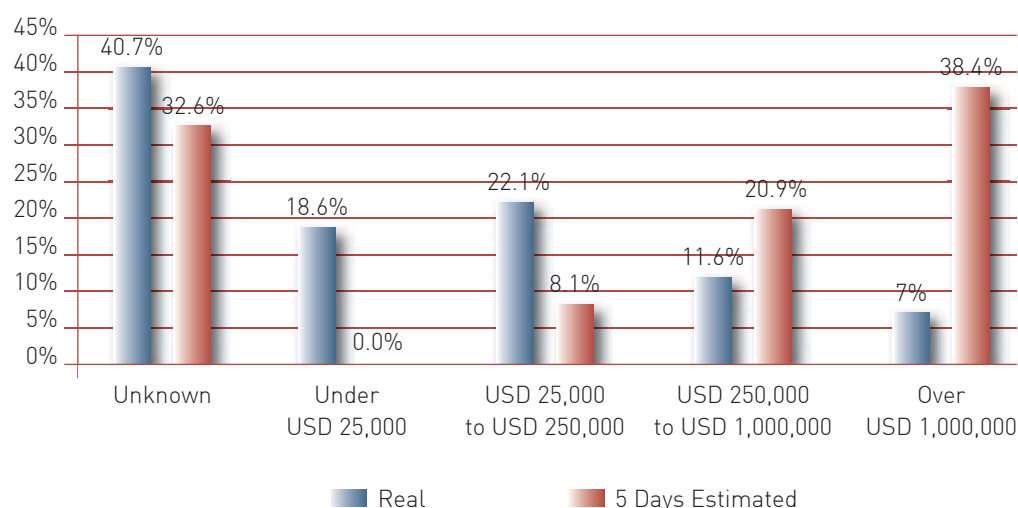
Art. 41.4: Insurance and reinsurance undertakings shall take reasonable steps to ensure continuity and regularity in the performance of their activities, including the development of contingency plans. To that end, the undertaking shall employ appropriate and proportionate systems, resources and procedures.

Several international standards have been defined pertaining to business continuity to help organisations manage key factors for guaranteeing, as far as possible, a company's resilience in the face of disaster

What are the estimated financial losses caused by incidents that have occurred in your company over the last year? And the estimated financial losses if the business were interrupted for five days? (USD)

Drafted in-house.

Source: 2011-2012 Global Business Continuity Management Program Benchmarking Study (Insurance Segment Report). Continuity Insights/KPMG.



Significantly, 40% of the organisations do not know the financial cost of the losses caused by the incidents, whereas almost 40% put the losses from a five-day business interruption at over one USD million.

In addition to defining «Operational Risk» as:

The risk of loss arising from inadequate or failed internal processes, personnel or systems, or from external events.

Measurement of this Operational Risk is part of the calculation of the Solvency Capital Requirement (SCR).

Main factors for developing a Business Continuity Plan

When it comes to making a decision to develop a BCP, be it to meet legal requirements or because a company believes it to be necessary, the following factors should be considered:

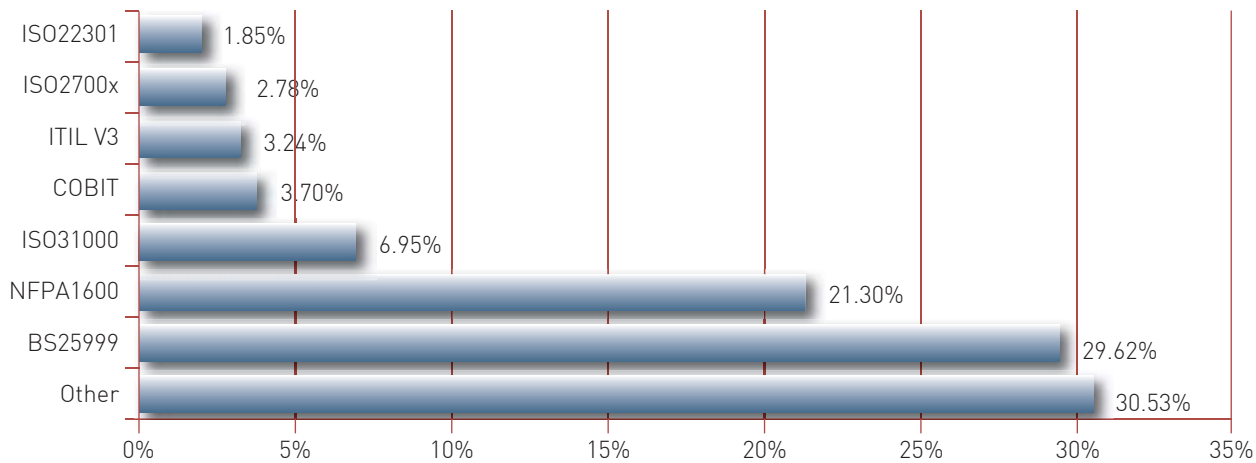
- **Ensure the commitment of one of the company's senior managers:** Having a project sponsor that has sufficient influence

in the company to ensure the backing of all of the units involved.

- **Scope of the plan to be developed:** Clearly identify which areas of the company are to be analysed, and which physical locations will be considered.
- **Resources to be allocated to the project:** These may be human resources from the same company, who are to be dedicated almost exclusively to the project development and/or financial resources for the project to be elaborated. This may also be performed by a specialised company; however the company's employees must always dedicate a percentage of their time to providing information and validating results.
- **Business continuity becomes just one more process within the company:** After the project ends, in addition to implementing the solutions, the BCM plan must be updated regularly

What business continuity management standard do you apply in your insurance company?

Drafted in-house.
Source: 2011-2012 Global Business Continuity Management Program Benchmarking Study (Insurance Segment Report).
Continuity Insights/KPMG.



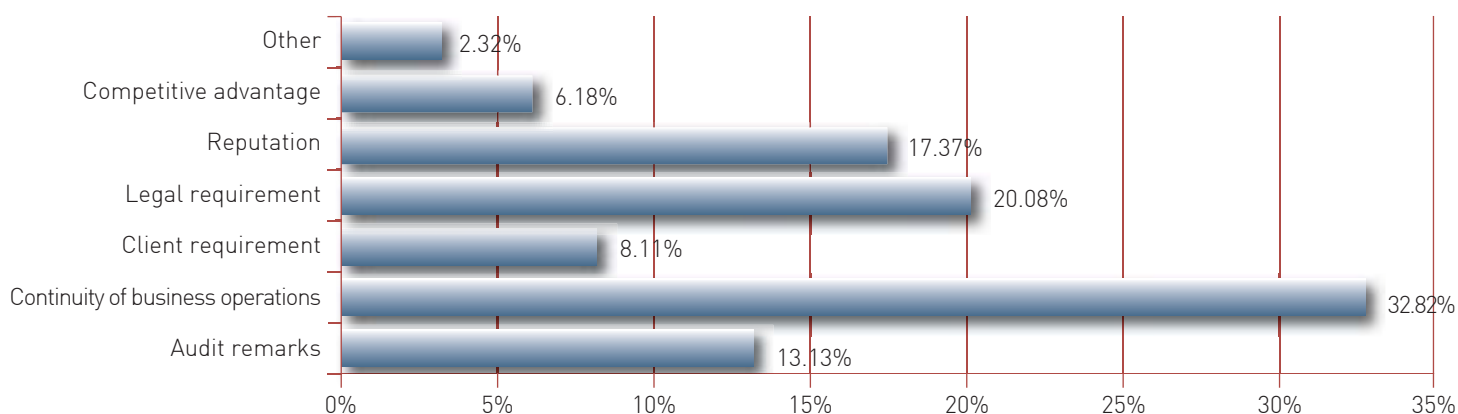
A third of companies base their business continuity management system on local standards in their own country or on non-specific business continuity standards (Others). The high proportion of companies applying standard NFPA1600 is mainly due to the fact that most of the companies participating in this study are located in the US. Only a low percentage of companies use ISO22301, which replaces BS25999, because at the time the study was performed it was still in draft stage (published in May 2012). It is also noteworthy that almost 7% of the companies base their business continuity management system on standards mainly related to technology (ITIL, COBIT).



What are the main reasons for implementing a Business Continuity Management System in your insurance company?

Drafted in-house.

Source: 2011-2012 Global Business Continuity Management Program Benchmarking Study (Insurance Segment Report). Continuity Insights/KPMG.



One in three insurance companies has developed a BCP (or is in the process of developing one), mainly to maintain the continuity of their operations, whereas one in five does so to meet legal requirements.



and whenever there are important changes in the company. The new process must be allocated enough managers and resources for its development and to handle the design, preparation and performance of tests that guarantee the suitability of the solutions implemented, as well as the training of personnel.

Stages of development of the BCP

The purpose of a BCP is to enable an organisation to react effectively and return to normal following a disaster-related business interruption. The ISO 22301 standard formally defines a Business Continuity Plan as:

Set of documented procedures that provide guidance to organisations for responding, recovering, resuming and restoring, after an interruption, to a predefined level of operation. This usually covers the resources, services and activities required to guarantee the continuity of the critical operations of the business.



In an insurance company, developing a BCP includes four phases, as described below:

1. Analysis of the risks in the event of unavailability

To complete a BCP in an insurance company, five elements must be investigated:

- ▶ People.
- ▶ Buildings/infrastructures.
- ▶ Information.
- ▶ Technology.
- ▶ Suppliers.

The risk of unavailability of each of these elements must be analysed, and probabilities must be assigned to each of the threats. This enables the company to ascertain which additional measures it needs to take

to detect or reduce the consequences of a given scenario; it also acts as a decision tool for prioritising recovery strategies. The difficulties associated with this phase are similar to those encountered in any risk analysis, and include:

- ▶ Having a log of incidents that have affected the company.
- ▶ Access to the necessary information.

2. Business Impact Assessment

A Business Impact Assessment analyses the effect of not performing a set of business continuity processes, listing and sorting them according to criticality and recovery time post-disaster.

This is the most important step when defining a Business Continuity Plan, as the rest of works to be performed will be based on the results obtained in this stage.

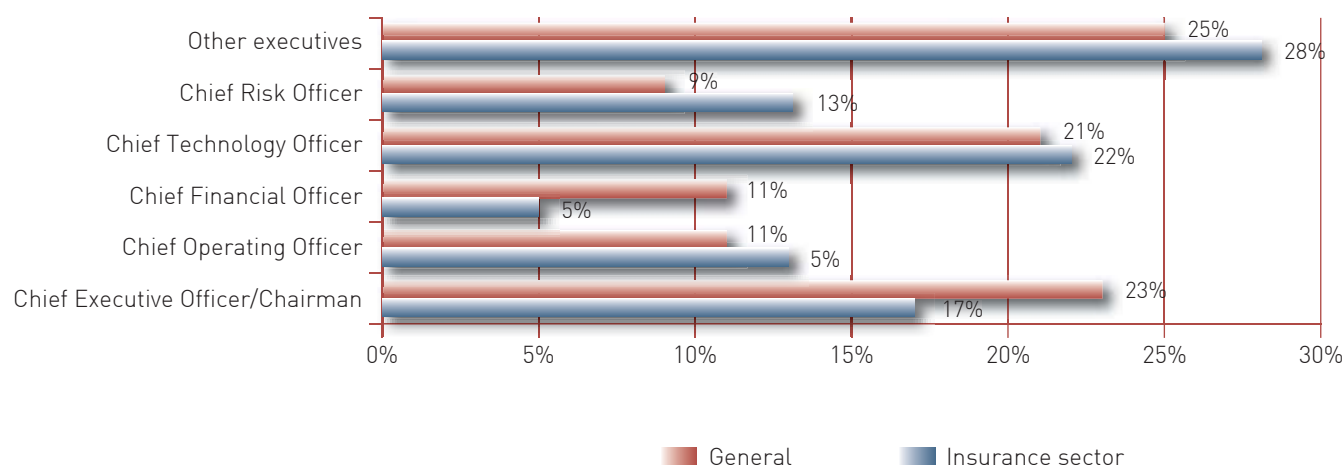
The purpose of a BCP is to enable an organisation to react effectively and return to normal following a disaster-related business interruption



Who is the main person in charge of developing the business continuity management systems?

Drafted in-house.

Sources: 2011-2012 Global Business Continuity Management Program Benchmarking Study (Insurance Segment Report). Continuity Insights/KPMG and Business Continuity Preparedness Survey, Q4 2011. Forrester/Disaster recovery Journal.



The graph does not show significant differences between the results obtained from the insurance sector and those from other business sectors. It is worth noting how influential the Chief Technology Officer is in implementing a business continuity management system.



The main difficulties of the Business Impact Assessment are:

- **The need for those in charge of the processes to be involved in order to determine the impacts.** Providing information for the analysis to be performed effectively requires time which, if added to day-to-day tasks, entails an additional effort.

- **To reduce the subjectivity of each person in charge in determining the impact of the processes.** In order to avoid the results being tainted by those who consider themselves indispensable to the company or those who consider that their work provides little value, educational talks or workshops may be held to explain the purpose and/or gather information in an indirect manner. The latter technique requires work beforehand, i.e. formulating the right questions, deciding which response criteria are to be used, weighting the questions and deciding which mathematical process should be used for the final calculation. Furthermore, the results obtained must be reviewed with senior executives, as they have a global view which enables them to detect inconsistencies in the classification of the processes for which they are responsible.

- **Assess the criticality of activities.** Given the in-depth analysis performed, employees in charge may see the analysis as an attempt to evaluate the relative importance of their activity to the company. This is an important aspect that must be clarified, especially given the current financial climate. It is essential to emphasise that the goal is to measure the criticality of each activity in the event that the company is affected by a disaster, not the importance of the activity *per se*. All of the activities carried out in a company are important, but if it is affected by a disaster, the company must prioritise

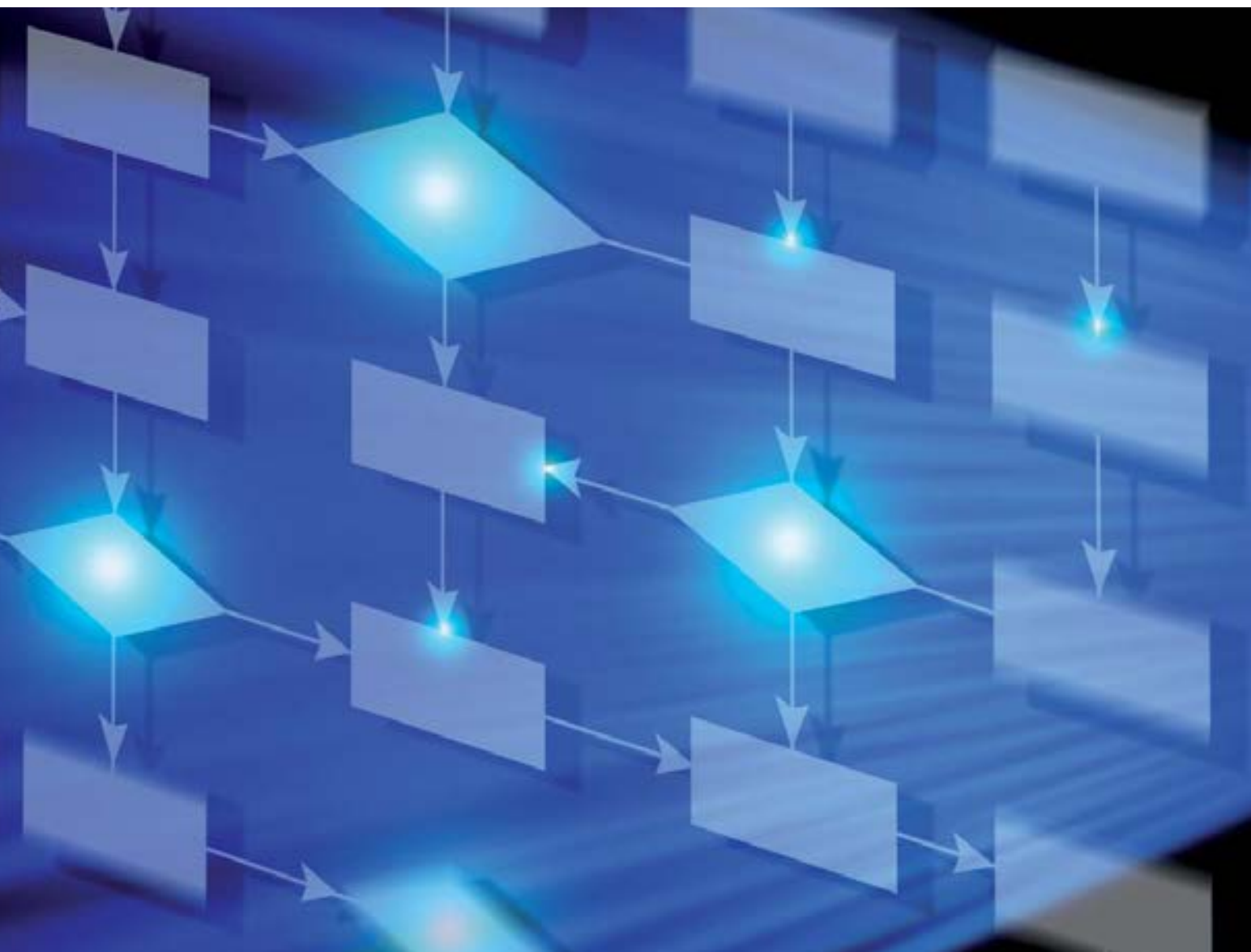
Given the in-depth analysis performed, employees in charge may see the analysis as an attempt to evaluate the relative importance of their activity to the company. This is an important aspect that must be clarified, especially given the current financial climate

Number of FTE (Full-Time Equivalent) employees dedicated to Business Continuity Management in insurance companies.

Drafted in-house.

Source: 2011-2012 Global Business Continuity Management Program Benchmarking Study (Insurance Segment Report). Continuity Insights/KPMG.

FTE number	0/2	3/5	6/9	10/20	+20
Corporate level	22.89%	7.63%	3.21%	1.61%	0.40%
Business units	15.26%	4.82%	2.41%	2.81%	5.62%
Information technology	16.47%	8.43%	2.41%	3.61%	2.41%



A key component of Crisis Management is the ability to communicate the situation and its evolution to both internal and external stakeholders

the recovery of some over others. Initially, it must focus its efforts on resuming those activities without which the company would be harmed (higher level of criticality); only then will it move on to the next level and so on until all of the activities have been re-established or all of the available resources have been used.

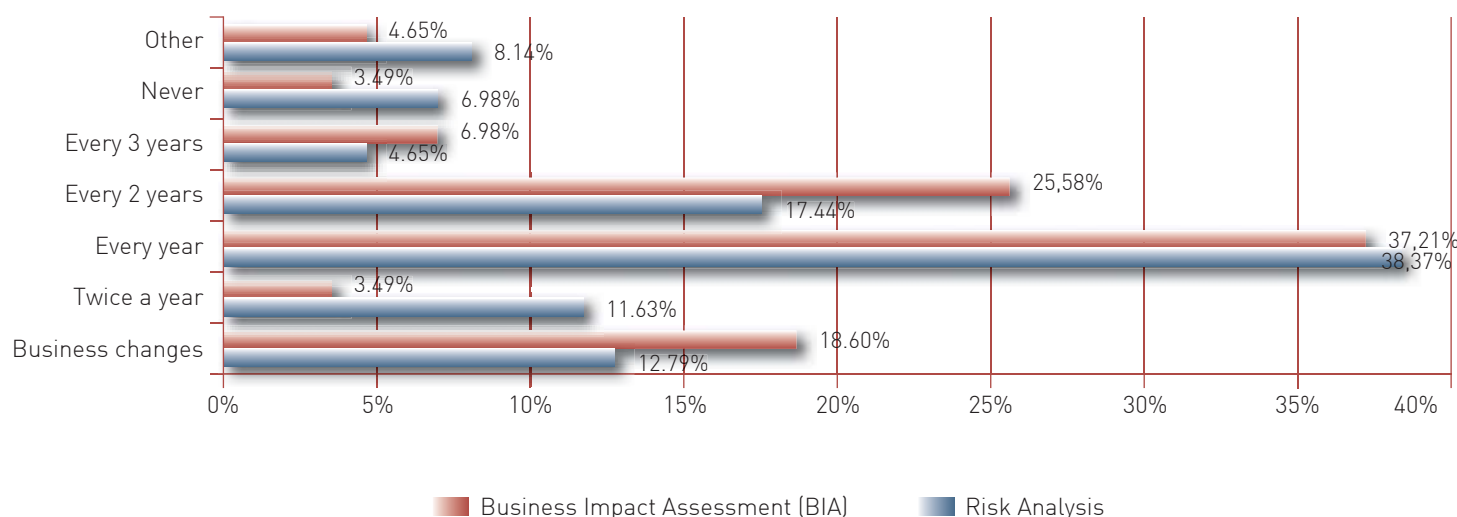
- **Determine which processes must be analysed.** It is recommendable to analyse all of a company's processes so as not to issue any ill-considered judgements on their criticality, without formal analysis; doing so runs the risk of excluding certain processes which may later turn out to be highly critical. The scope of process analysis may be organised by breaking them

down into different stages and proceeding until all have been worked through. For example, we could begin by contemplating all of the processes in a single area of the company, before expanding the scope to others in other areas until the company's process map has been fully evaluated. This approximation of analysis may entail additional work, as new results may have to be consolidated with those from previous stages (principally affects processes that cut across multiple areas). Nonetheless, in large companies this could be the best approach towards a complete analysis. This «divide and conquer» strategy attempts to optimise BCP despite the large number of processes to be analysed and the finite resources available.

How often is Risk Analysis performed in your insurance company? And the Business Impact Assessment?

Drafted in-house.

Source: 2011-2012 Global Business Continuity Management Program Benchmarking Study (Insurance Segment Report). Continuity Insights/KPMG.



Half of the insurance companies surveyed said they reviewed the results of their risk analysis in the course of the year following the last analysis; 11.63% said they reviewed their results sooner. In the case of the business impact assessment, 40% of the companies said they reviewed their results in the course of the year following the last analysis; 3.49% said they did so sooner. It is important to note that relatively few companies perform reviews when there have been changes in the company.

► Study of the dependency between processes.

This aspect relates to the above item and it studies the possible dependency between processes. If, for example, process A receives a certain criticality value, the processes on which it depends must have a higher criticality value, so that when process A is resumed, the processes that it requires for its operation have been re-established beforehand.

► Determine the level of depth to be analysed.

Companies may have compiled a map of processes at different levels (processes, sub-processes, activities, tasks), or if they do not have them, the analysis may be performed on the basis of organisational structure (directorates, areas, departments, management). In either case, the depth of analysis must be determined, so that the results are homogenous. It is also important to avoid being overly generic, as this may set in

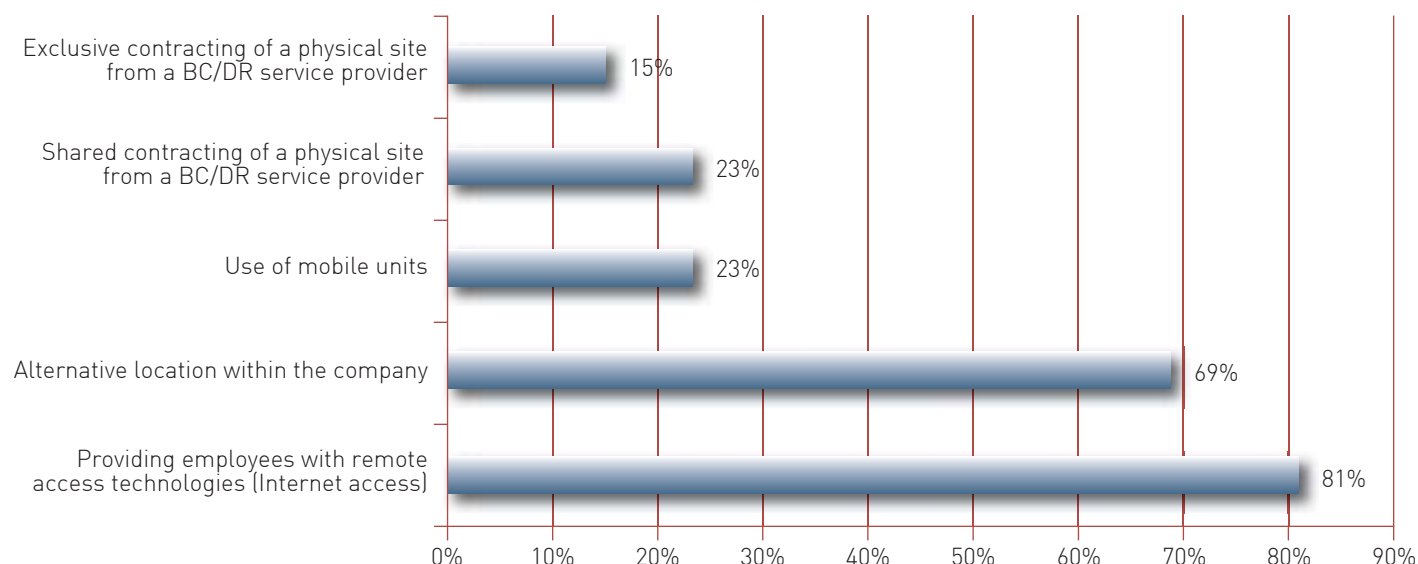
motion a search for solutions that involves many resources, but fails to specify their object. Likewise, it is necessary not to go into excessive details; while precision in terms of resources to be used, etc may be useful in some ways, if a disaster strikes, proposed solutions must be sufficiently flexible to respond to the scenario at hand.

► Determine the thresholds of the criticality values and their correspondence with the Recovery Time Objective (RTO).

The RTO is measured from the time when the incident is detected to the re-establishment of the activity. This time must be determined for each of the processes and will depend on the criticality of the process analysed. We must bear in mind that usually the lower the RTO required by the processes, the higher the financial investment and/or effort required in the preparation of the procedures to reactivate the activity, as there is less time for reaction.

What Business Continuity solutions do you apply in your company?

Source: Business Continuity Preparedness Survey, Q4 2011. Forrester/Disaster recovery Journal.



The solutions shown in the graph mainly relate to a disaster scenario that has affected a company's buildings, requiring that employees be relocated or given remote access to computer systems; the latter is the most frequently implemented solution. (BC/DR: Business Continuity and Disaster Recovery).

3. Selection and design of solutions for recovering the activity

Having analysed the impacts of not performing the processes when the company is struck by a disaster and having determined the time in which the activities should be reinstated, solutions must be designed that would enable business requirements to be met while minimising recovery time and resources usage. These solutions will be defined depending on the unavailability scenarios of the elements required to perform the processes.

The main difficulties during this stage are:

- **Determining the minimum degree of service that must be provided.** The solutions that are specified for the disaster scenario must consider the minimum essential resources required to perform the activities.
- **Estimating the cost of developing the solutions.** This is a crucial factor for

decision making, especially when there are several alternatives. We must identify the parameters that have a bearing on the cost of the proposals and apply them to the resources that will be required to resume the activity.

- **The company senior management must approve the BCP and costs.** Derived from the above, developing the proposed solutions may exceed the competences of the business continuity unit; the process may thus require the approval of senior management, and other departments involved in implementation may need to be notified.

In addition to selecting and implementing the solutions, the procedures for Crisis Management must be specified, as well as the operations for reinstating affected activities. A key component of Crisis Management is the ability to communicate the situation and its evolution to both internal and external stakeholders.



4. Performing tests

In order to determine whether the company is ready to face a disaster, exercises must be performed that will enable business continuity staff to:

- ▶ Verify that the solutions implemented and the procedures developed are suitable and sufficient to meet the business requirements.
- ▶ Identify aspects to be reviewed or improved.

Tests may be performed in stages depending on how mature the solutions/implementation procedures are. To begin with «desk tests» may be performed in order to verify that all of the tasks to be performed -as well as their interfaces- are shown. A «simulation» is then organised in which the procedures and solutions are tested operationally. A company can only confirm that

it has a BCP if it has performed tests and the results are considered satisfactory.

Conclusion

The BCP must fall within the framework of a Business Continuity Management system that allows for ongoing development, monitoring, review, maintenance and improvement; this includes defining an organisational structure and associated responsibilities, drafting policies, assigning resources and planning activities to be performed.

Once these plans are in place, business continuity simply becomes one more process for the company. Notwithstanding this, it is crucial that these procedures are properly managed and kept up to date so that the company is optimally prepared should a (worst-case) scenario occur.

Iberian ham, a time-honoured industry





José Vilches
Managing Director
NAVIDUL
Madrid - Spain

Introduction

Ham is a product rich in symbolic significance that embodies the very best of Spain's culinary tradition. It is a true totem for the country and our most wholesome foodstuff. Highly nutritious, it is seen as a Spanish icon around the world.

Ham is also at the centre of the largest meat processing market in Spain, with an annual production of some 47 million units and sales of EUR 1.88 billion, an industry encompassing hundreds of producers.

Most ham is consumed in the household with 77.2% of the total, while bars and restaurants take up 22.8%. Ham is found in 90% of Spanish households, making it one of the most commonly consumed edibles in the country.

Ham is divided into two main categories under Spanish law:

► **Serrano/Drycured.** This category represents 79% of the total production and 66% of sales. Derived from white pigs, *serrano* ham is more common and affordable, and is therefore used in day-to-day consumption. It is regulated by an EU law that requires it to be cured on the bone for a minimum of seven months.

► **Iberian.** This category represents 21% of total ham production and 34% of sales in the Spanish market, amounting to EUR 696 million. Iberian ham is derived from a breed of pig that is exclusively found in the Iberian Peninsula. It is a more primitive, less productive animal that requires a longer curing period (a minimum of 24 months) on account of its higher fat content, including the intramuscular fat that gives it its distinctively delicious taste.



The Iberian pig

History of the Iberian pig

Iberian pigs are the result of inter-breeding with different varieties of wild boar. With only a small population (fewer than two million individuals in 2013), this indigenous breed is found only in the Iberian Peninsula. The *dehesa*, an ecosystem of pastureland dotted with holm oaks, is the perfect environment for these pigs, where they are raised following a special rearing and feeding regime.

Iberian pigs' tendency to store fat within their muscles makes them unique and gives the products derived from them an outstanding taste, texture and aroma. Most celebrated among these products is Iberian ham. The first known hams go back to the time of the Roman empire. A fossilised ham estimated to be 2,000 years old was found in Tarragona in north-eastern Spain, the site of the ancient city of Tarraco.

Strains, lifecycle and feeding

The Iberian pig breed actually comprises several strains, which are grouped into two main varieties by their skin colour: black and reddish.

Iberian sows have fewer and smaller litters than other breeds. The gestation period is a curious three months, three weeks and three days. At birth, the piglets weigh about one kilo. Slaughtering takes place when the pigs are at least 10 months old, and there are specific names for pigs of different ages: *tostón*, *lechón*, *marrano*, *primal* and *gordo*, from the youngest to the oldest.

Iberian pigs' diet goes through three stages: a lactation period where the piglet feeds on the mother's milk, a growing period where cereal feed is used, and lastly a fattening period, which results in an acorn-fed (*bellota*) Iberian ham if the pig is allowed to roam the *dehesa* freely feeding on acorns and grass, or else a grain-fed (*cebo*) Iberian ham if the pig is given grain feed only.

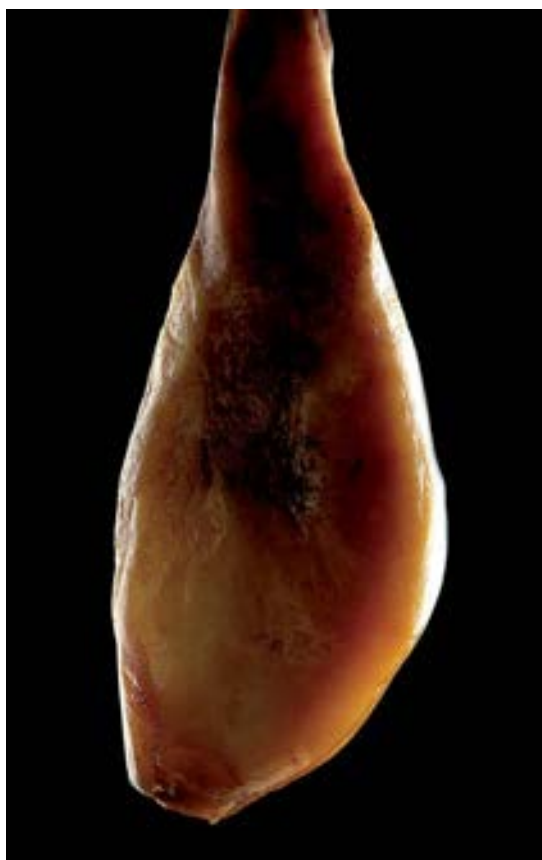
► **Acorn-fed ham (*Jamón de Bellota*)**. Derived from 50% or 75% pure Iberian breed pigs (mother registered in the official pedigree book). Identified by a red tag. The same strictly-acorn feeding as the previous category, but with a cross-bred pig, between a pure-bred Iberian female and a Duroc male. This category represents 13% of the available total.

Iberian ham

Types of Iberian ham

Ham (*jamón* in Spanish) is the cured hind leg of the pig. The fore leg is called shoulder (*paleta*). Under the new Iberian ham regulations (effective since January 2014), there are four main categories of Iberian ham according to the pig's diet and handling. It is worth noting, however, that this classification will not apply to products sold on the market at least until the beginning of 2016:

► **100% Iberian acorn-fed ham (*Jamón de bellota 100% ibérico*)**. Identified by a black tag. Derived from 100% pure Iberian breed pigs fed strictly on acorns they find on the grazing land during the *montanera*, the period from October to March when acorns fall from the oaks. During that period, the pigs gain at least 46 kg over a minimum of 60 days. This category represents only 5.3% of all Iberian pigs slaughtered (see Table 1).



Iberian pigs' tendency to store fat within their muscles makes them unique and gives the products derived from them an outstanding taste, texture and aroma

Table 1: Number of iberian pigs slaughtered.

	2012	2013	Variation (%)	% of total
Acorn-fed 100% Iberian	105,065	107,232	2.06%	5.38%
Acorn-fed Iberian	306,226	258,609	-15.55%	12.98%
Grain-fed free-range Iberian	33,219	35,409	6.59%	1.78%
Grain-fed Iberian	1,875,190	1,591,730	-15.12%	79.87%
Total	2,319,700	1,992,980	-14.08%	100%

Iberian ham curing is a unique process lasting more than 24 months. The temperature is gradually raised and the humidity reduced so that only sea salt is needed to extract the water contained in the meat

► **Iberian grain-fed ham (*Jamón de cebo ibérico*)**. Identified by a white tag. Derived from Iberian pigs fed on a diet of natural feed made with selected cereals. This is the most common category, representing about 80% of the total.

► **Free-range grain-fed Iberian hams (*Jamón de cebo de campo ibérico*)**, a subcategory of the grain-fed class, are derived from pigs fed on grain and reared in farms with a low density of individuals per hectare. In 2013 only 35,000 pigs were assigned this grade (2% of the total).

As a general rule, the retail price of acorn-fed ham is double the price of grain-fed ham, and this is in turn double the price of *serrano* ham.

Production

Iberian hams undergo a unique curing process lasting at least 24 months. The temperature is gradually raised and the humidity reduced so that only sea salt is needed to extract the water contained in the meat. Today, the great majority of producers replicate a process that has been known and used for centuries:

► **Dry salting:**

Once the hams have been prepared and sorted by size, they are covered in salt for approximately one day per kilo of weight, at winter-like temperature and humidity. Next, they are rinsed with cold water to remove excess salt from the surface.

► **Post-salting:**

The aim is to make hams firm as the salt spreads evenly throughout their interior. This stage takes place in controlled chambers where the temperature is set at approximately 4°C and humidity is 10% lower than in the previous stage.

► **Drying:**

The hams are transferred to drying kilns, where the temperature is higher and the humidity is lower. In these spring-like conditions, their colour stabilises and the characteristically Iberian taste and aroma develop.

► **Stoving:**

This last part of the drying stage takes place in summer-like conditions, with the hams kept at temperatures in the region of 25°C for about three months.



Ham dry salting process

► Cellar:

Maturation is the longest stage of all. Kept in a cellar, hams slowly age and acquire their distinctive *bouquet*.

Nutritional value

Iberian ham's nutritional properties, particularly the acorn-fed variety, make it a source of health and well-being and a key supplement to the Mediterranean diet.

As much as 62% of its fat content is mono-unsaturated fatty acids and oleic acid, which help to raise HDL levels in the blood and reduce C-LDL.

Rich in vitamins and minerals, it has a high content of vitamin E -the «youth-and-beauty» vitamin- as well as vitamins B1, B6 and B12, and folic acid, all of which are highly beneficial for the nervous system and for the brain in particular. Minerals including iron, copper and phosphorous, proteins in abundance, and other oligo-elements that help prevent anaemia and contribute to muscle and bone development.

100g of ham only contain 190 calories - less than any other cured meat.

Enjoying the tastes of Iberian ham's

Iberian ham is considered one of the four most exquisite delicacies in western culture, alongside caviar, foie gras and truffles.

Interspersed white fat with yellowish tinges gives Iberian ham its characteristic marbled appearance. The meat is dark red, almost purple, though the different cuts vary in hue and taste: mace, thickflank, end and knuckle each have their own shades and nuances.

More than 170 volatile substances make up its unmistakably intense aroma, touched by hints of mushrooms, dried fruits and caramel.

The taste of acorn-fed Iberian ham is predominantly sweet, with touches of salt and a faintly bitter aftertaste. The flavour is further enhanced by the lusciously juicy texture that only Iberian pork's marbled fat can provide.

The *dehesa*

The *dehesa* is a unique ecosystem where the Mediterranean forest is farmed in the best possible way. The trees, mainly of the

The meat is dark red, almost purple, though the different cuts vary in hue and taste: mace, thickflank, end and knuckle each have their own shades and nuances



Process of maturation in a cellar



Quercus species, include holm oak, cork oak and gall oak. These varieties produce acorns that ripen in the autumn and feed the pigs in the winter. Traditional rearing of Iberian pigs has been instrumental for the conservation of the *dehesa*.

Almost half of the world's total holm oak surface is in Spain - 1.6 million hectares, of which almost a million are in the south-western region of Extremadura, and the rest in Andalusia, Castile-La Mancha and Castile-Leon.

Controlled designations of origin

Spain has four controlled designations of origin for Iberian pork products, while neighbouring Portugal has one. Their purpose is to protect and control the hams produced in the designated regions and ensure they meet certain distinctive specifications.

- ▶ The «*Dehesa de Extremadura*» designation of origin was established in 1990 and covers 85 villages. Its climate is continental with some Atlantic influence.
- ▶ The «*Guijuelo*» designation of origin was established in 1984. It covers 76 producers distributed across a number of villages in the area of Guijuelo. It has cold, dry winters and short, mild summers.
- ▶ «*Jamón de Huelva*» pigs are reared in the *dehesas* of Extremadura, Seville, Cordoba, Cadiz, Malaga and Huelva. The designation of origin covers 31 villages.
- ▶ «*Los Pedroches*» is a designation of origin covering more than 100 farms and 16 producers, all of them located in the region of the same name, the greatest part of which is in Cordoba province. The region has fairly cold winters and extremely warm summers.



► «*Barrancos*» is the only Portuguese designation of origin, covering Iberian ham produced in the Alentejo region. Home to one of the purest breeds of Iberian pigs in the Iberian Peninsula, its products are considered the best in that country.

The Spanish Iberian pork industry

Key figures

Spanish Iberian pig rearing and its associated industries are starting to emerge from a severe crisis that has caused far-reaching transformation.

The Iberian pig population has fallen by more than 50% since 2008, as have slaughtering (only two million heads were slaughtered in 2013, 80% of which were grain-fed) and industrial production of Iberian pork products.

The largest producing region is Castile-Leon, with 35% of the total -the vast majority in Salamanca province- followed by Extremadura, with 33% of the total. In recent years, intensive farming has begun to appear in other regions with no tradition of Iberian pig rearing, including Murcia and Catalonia.

Regarding sales, 4.8 million hams and 4.66 shoulders were sold in 2012, down 4% on aggregate. Home consumption has dropped 8.3% since 2009 according to the MAGRAMA¹, despite significant reductions in retail prices, which producers have resorted to in a bid to reduce their stocks and obtain the cash flow needed to continue production in a market where finance is hard to come by.

Industry trends

In the years of the economic boom, the Spanish Iberian ham industry attracted a host of new players. Some of them had made money in

Spain has four controlled designations of origin for Iberian pork products, while neighbouring Portugal has one. Their purpose is to protect and control the hams produced in the designated regions and ensure they meet certain distinctive specifications

¹ MAGRAMA: Spanish Ministry for Agriculture, Food and the Environment

the property sector and invested in enlarging livestock and building new abattoirs and curing facilities.

This expansion of the industry's capacity meant that, when the crisis slashed the natural demand of upmarket products such as Iberian ham, the market had excess stocks and capacity. Prices plummeted, the industry was unable to find the funding needed to feed its working capital requirements and became beset by financial problems. Leading firms closed down, went into insolvency, changed hands or sought deals to refinance their debt.

After years of drastic adjustment, the situation is reversing as many farms have shut down or reduced their pig stocks, leading to an already noticeable scarcity of raw material and sharp increases in the price of fresh produce, which in 2014 have begun to translate into rising retail prices.

Industrial producers will still have to face uncertainty for several years but diminished competition and downsized surviving businesses are opening up opportunities set to deliver returns on a par with those of the past.

The industry is thus becoming more concentrated in fewer players. This process favours companies with easier access to finance, wide market reach, reputed brands and, most importantly, diversified businesses that include prepared meat products from white pigs and other animal species such as turkey and chicken.

Similarly, farmers who have survived the crisis are now seeing the prices of pork and live pigs climb rapidly in the markets of Merida and Salamanca, offsetting the increase of previous years in the cost of cereals used as feed. This ensures the profitability of their businesses at least until the next change in cycle.

Excessive pig supply has given way to scarcity and rising prices in raw materials which, added to strong competition, is creating difficulties for producers. To be specific, fresh ham that was priced at 3.50 EUR/kg in 2012 was being sold at above 6.50 EUR/kg only a year later.



The supply and demand cycle of Iberian ham

Ham is the most important cut of Iberian pork and ultimately the reason for breeding Iberian pigs. It is exclusive to the Iberian Peninsula (there are no other markets for it in its fresh form), production cycles are longer than two years, and it cannot be used for other purposes (unlike white ham, which can also be boiled). The industry that produces it is highly atomised and scarcely regulated. For all these reasons, supply and demand never match up for very long, which creates a cycle that under normal circumstances



lasts for seven years, permanently oscillating between oversupply and undersupply, with the selling price (which is prone to considerable variations) as the regulating factor.

Regulatory framework

The 2007 regulations, which have been in force until very recently, were an attempt to bring order into an industry where confusion had traditionally been the norm and where a few wily producers took advantage of consumers' understandable unfamiliarity with the product.

Relaxed supervision prevented the 2007 regulations from being fully enforced. This, coupled with the ongoing transformation in the industry, prompted the Ministry for Agriculture (MAGRAMA) to introduce a new set of Quality Regulations in January 2014, following protracted negotiations with the different stakeholders.

Hammered out over several months marked by territorial wrangling and interest clashes, the new regulations simplify ham categories and are expected to improve compliance, prevent unfair competition and protect consumers and businesses that adhere to the law strictly and consistently, as we do.

Exports

The statistics available to us do not discriminate between the different types of cured ham, but we know that the vast majority of sales are *serrano* ham rather than Iberian ham, which is barely known or appreciated outside of Spain.

Spanish ham exports amounted to EUR 303 million, up 16.6%, and some 31,100 tons (16% of the total Spanish production). The leading destinations are in Europe: Germany with 8.579 tons (27% of the total), France (26%), Portugal (9.2%), Italy (4%) and Belgium (4%). Significant non-European importers include Mexico with 785 tons (3% of the total) and the US with 485 tons (mostly *serrano*).

References:

El Jamón. Elegirlo, cortarlo y saborearlo (Selecting, slicing and enjoying ham).

Author: Juan Carlos Gómez Sierra

Published by ANAYA, *Oberón Práctico, Para Torpes* collection. 2011

El jamón (Ham).

Editor: Paco Asensio. Texts: Cristina Montes
Loft Publications. 2002.

El cerdo Ibérico, la naturaleza, la dehesa (The Iberian pig, nature and the *dehesa*).

Published by: Ministry of Agriculture, Fisheries and Food, General Technical Secretariat. 1997.

After years of drastic adjustment, the situation is reversing as many farms have shut down or reduced their pig stocks, leading to an already noticeable scarcity of raw material and sharp increases in the price of fresh produce

interview with

Ignacio de la Torre

Partner
Arcano Valores
Madrid - Spain



Ignacio de la Torre has been a partner at Arcano since 2008. An expert on capital markets, he is academic director of the IE Business School finance master's programmes. He holds a PhD in history and a degree in law from the Spanish Distance-Learning University (UNED), a degree in economics from Icade University and an MBA from INSEAD Business School in France. He has 17 years' experience in investment banking, corporate finance, stock market analysis, media sales and European securities and derivatives sales at UBS and Deutsche Bank. He is the author of *Ingeniería Financiera* (Creative Accounting Exposed, published in English by Palgrave in 2008), a review of the accounting scandals of 1999-2004 and their connections with capital markets.

In addition to a number of research papers, he has written a doctoral thesis on the banking operations of the Knights Templar in the 13th century, which led to his first book, *Los Templarios y el Origen de la Banca* (The Knights Templar and the Origins of Banking, published by Dilema in 2004), a work the Nobel laureate Sir Aaron Klug praised as «a key step in research on the origins of banking». He has also published a book on the origins of Islamism, *Islamismo: Desvelando el radicalismo* (Islamism: Unveiling radicalism, published by Lid).

In 2009 he founded the NGO *Financieros sin Fronteras* (Financiers without Borders www.fsf-ngo.org). He has been an associate lecturer at IE Business School since 2002 and he was voted Best Teacher of the Financial Management Master's degree in 2006.

He has also been voted Best Teacher of the Finance Master at IE in 2014.

«Spain in 2014 is like Germany in 2004»

As part of his work at Arcano, Ignacio de la Torre has written two reports on the Spanish economy that have attracted considerable attention. The first report*, published in October 2012 was the first to actively recommend investing in Spain. His relentless stream of uncompromisingly independent ideas is entirely focused on helping to inspire confidence in Spain among institutional clients. Now is the chance, he argues, to invest in Spain.

According to the report «Spain 2014 = Germany 2004», Spain's outlook for 2014 is similar to Germany's in 2004. Can you elaborate on that?

Like Germany in 2004, Spain is a great exporting power. In fact, right now only Germany outperforms us in terms of exports-to-GDP. Spain has proved that exports are a driver of growth. Secondly, consumption and investment, which had been negative for three years, became positive again last autumn. This means GDP will start growing at a rate of 1% or above. So we have pulled out of recession and into growth, just like Germany did in 2004. Thirdly, the German economy succeeded in growing in 2004 without any growth in lending. Essentially, the Spanish economy used to be based on pumping credit into construction to deliver growth. That model leads to cancer. Today we have a model of production that generates growth without the need for a disproportionate increase in lending. That is a crucial point:



Germany's structural reforms succeeded in adjusting seven or eight percentage points to its current account balance. Spain has achieved a 12% reduction over five years

* <http://www.arcanogroup.com/sala-prensa/presentaciones-informes/>



Contagion from the property sector to finance has ceased, the negative feedback is gone and Spain has begun to export to the rest of the world. All the vicious cycles have reversed and become virtuous cycles

GDP can continue to grow while lending intensity remains stable because exports do not depend on credit like construction does. This is another clear similarity with the German experience. And fourthly, Germany's structural reforms succeeded in adjusting seven or eight percentage points to its current account balance. That was a historic shift that very few thought possible without currency devaluation - remember Germany no longer had the mark. In Spain we have achieved a 12% adjustment over five years, which is more than the Germans did. In the near future we will see a 3 to 4% current account surplus, the second largest relative to GDP of all western economies.

Have we now left recession well and truly behind?

Yes, we have. Spain's emergence from recession in 2010 proved delusive because balance sheets in the financial sector were not real at that time. As we have seen in Japan, a financial system in that condition

will not lend its money. False balance sheets generate sovereign contagion and if sovereign debt is burdened by high interest rates, they reflect on the economy at large. The economy simply will not work without a healthy financial system. Following the recent reforms, we now do have a healthy financial system. Contagion from the property sector to finance has ceased, and the financial system's exposure to real estate stands at only EUR 100 billion, compared with 400 billion a year and a half ago. So the negative feedback is gone and Spain has begun to export massively to the rest of the world. All the vicious cycles have reversed and become virtuous cycles. The greatest challenge we face now is accelerating costs, not a return to recession.

Is consumption showing signs of recovery?

Consumption edged into positive territory in the third quarter of 2013 and became stronger in the fourth quarter. It is growing at 0.3%, which is above the euro area rate of 0.2%. In truth, Spain has seen stronger



growth than Europe and the indicators signal that we will continue to do so. The Spanish service sector indicator is at its highest level since 2007.

So what rate are we actually growing at?

Spanish year-on-year increases have been significantly outperforming the rest of Europe since last September. Car sales are picking up and clearly the other key lever for change will be construction. We are now building 35,000 homes a year, a third of the figure in 1959, when Spain had a population of 35 million. Construction will start to see marginal growth because available housing is running out in some areas. If 340,000 houses are being sold every year and 35,000 are being built, that means the construction rate should reach 250,000 homes a year by 2015, which is the historical average.

What other barometers can be relied on?

The key is to watch the PMI¹ because it reflects a country's economic situation

based on leading company performances. It is the best gauge to tell where a country is going. Stock and bond markets mirror the PMI and that has reportedly been gaining ground quite rapidly since the spring of last year, even outstripping the euro area and China. Being 50 the average, Spanish PMIs stand today at 54, with Chinese at 50, and the Eurozone at 52.

Does the Government take any heed of this, does it pay more attention to the IMF or does it decide exclusively at its own discretion?

Of course, any forecast from the International Monetary Fund (IMF) is politically significant, but technical government officials do watch the PMI. In 2007, the rating agencies said the Spanish economy was perfect as unemployment and default rates were falling, so they gave us a triple-A rating. And yet at that time I was telling my clients to invest in Germany rather than in Spain, in view of the risks and the signs emanating from the current account deficit (the second largest in

In 2007 the IMF said the Spanish economy was perfect as unemployment and default rates were falling, so they gave us a triple-A rating

¹ PMI: Purchasing Managers Index.

Are we returning to the consumption levels seen at the beginning of the crisis?

Consumption is picking up and we see the chain of staff expansion, stock purchase and exports coming back into motion. Consumption will go back to normal. It was abnormally low in 2012, in fact that was the worst year since records started in 1971. Seven circumstances coalesced to cause a tremendous debacle:

- ▶ VAT and personal income tax went up.
- ▶ 500,000 jobs were lost.
- ▶ The labour reform led to an unprecedented 3.5% reduction in nominal salaries.
- ▶ Public servants were not paid their special bonus.
- ▶ Inflation stood at 3%, limiting purchasing power.
- ▶ Consumer confidence plummeted.

In 2013 and 2014, these circumstances are going back to normal, thus contributing to recovery:

- ▶ Public servants recovered their bonus.
- ▶ Inflation is at 0.3%, leaving an extra EUR 18 billion's worth of purchasing power.
- ▶ Jobs are no longer being destroyed but are beginning to be created in gross terms, generating consumer confidence, which is at its highest for the past three years.
- ▶ Tax rises have stopped and people will start seeing reductions in 2015.

the world in absolute terms), the construction boom and the rise in lending. They were very alarming indeed. In fact, they are the same indications I currently see in Brazil and other emerging economies.

And you were not wrong.

Well, no. I took the opposite view than I do now because the picture I saw was the opposite. But with the recent reforms I have taken a very positive view of Spain. When I saw that Spanish credit default swaps were higher than Egypt's, I realised something was not right. How could a country like Egypt, which does not have a middle class, be a safer investment than Spain? That spurred me to write the report. A lot of cash has come into Spain since then. If you give a sick man the right treatment, he will get better. We know what

is ailing Spain and liquidity is the treatment. Unless the economy receives some liquid cash, the patient's condition will not improve. People are not aware of the massive inflow of cash coming in at the moment. Yet it explains the fact that economic parameters are being shortened to six months. It is a direct equation, so it is extremely difficult to predict using an econometric model. As a consequence of such liquidity realized GDP is being well above many forecasts.

Will lending stabilise?

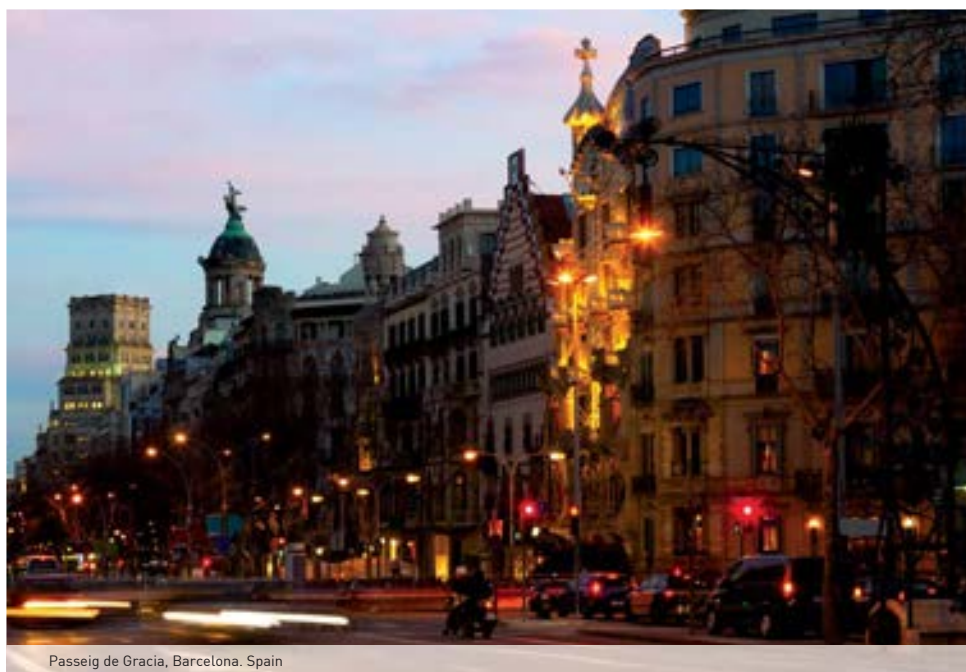
The figures show that non mortgage lending has stabilised in the banking sector since November. The important thing is that new loans are on the up, which is excellent news because it has happened much earlier than expected. In my report, I claim economists





San Miguel Market, Madrid. Spain. © Tupungato / Shutterstock.com

and econometrics are making a mistake by looking exclusively at bank lending because it is non-bank lending that is growing. That is why I talk about bonds and direct financing, which already amount to EUR 85 billion (8.5% of GDP). International banks are supporting Spanish companies, bank lending is stabilising and non-bank financing is starting to shoot up, all of which leads to the conclusion that 2014 will be the first year in which finance will enable GDP growth. However, finance is different from what it used to be. Companies are issuing bonds and an Alternative Fixed-Income Market has been set up to help them do that. Nonetheless, there is still a question mark over small businesses. The solution is to provide SME loans to open up securitisation markets, but it must be implemented at the



Passeig de Gràcia, Barcelona. Spain

European level. Work is already under way in this respect. Lending is being channelled towards small businesses, which are vital for the economy.

What is your view on non-bank financing?

Statistics show that Spain has a 91/9 bank-to-non-bank ratio, which is far removed from Europe's 50/50, much more from the US and the UK, which have 20/80 ratios. We are moving towards convergence with the European average, but I think we will be at 65/35 in 2020. The reason is that the more SMEs there are, the less non-bank financing you can have. It is not bad for banks and it is far better for businesses because a wider choice enables them to invest more and create jobs. They can turn to the markets or elsewhere for funding. There is traditional finance through the different kinds of bonds and direct financing operations where hedge funds lend money direct to the borrower. Insurance companies have a major role to play in this respect, as they can enter into the same deals as hedge funds themselves.

Should we start thinking the years of plenty will be back?

We will be returning to normality in terms of domestic demand -250,000 houses built, 1.2 million cars sold, exports stable at 35% of GDP, current account surplus- which is

Regulation should have been more countercyclical, imposing even larger provision and bank capital requirements to curb lending expansion in good times, and doing the opposite during bad times, that is, easing those requirements to stimulate lending

The fact that exports represent 35% of our GDP is an achievement of the Spanish professionals who have travelled the world over to market our products. Spain has taught the rest of the world a lesson on exporting success



Port of Cadiz, Spain. © David Acosta Allely / Shutterstock.com

a major advance compared with the deficit we had in 2006. If I looked at the economy in 2018 and saw a 7% current account deficit with 600,000 homes being built and 1.8 million cars sold, I would say we'd better run away.

Why is systemic risk no longer an issue?

Systemic risk arises when a debt stock problem combines with a flow problem. Flow is negative, i.e. indebtedness grows each year, and on top of that there is a colossal debt stock. That used to be the case in Spain. Now the country has current account surplus and the private sector has gradually deleveraged. Families and businesses have reduced their level of debt much faster than expected. People are confident that public debt will be checked at 102 or 103% and nominal GDP will start growing at a faster rate than debt. It is still high but the main thing is to make sure it stabilises. Added to that, the financial system is no longer ridden with false balance sheets -which used to be a major problem- and positions

in the property sector have been retrenched, so there really are very few sources of infection that systemic risk could spread from. My argument is that regulation should have been countercyclical, imposing larger provision and bank capital requirements to curb lending expansion in good times, and doing the opposite in bad times, that is, easing those requirements to stimulate lending.

You say the worst of the credit crunch is over. What is the evidence?

Reports show that total lending to the private sector has stopped its downward spiral. Bearing in mind that it is new lending flow (the mathematical derivative) rather than lending stock that explains GDP, it is now accurate to say that finance is accelerating economic growth. That is the critical turning point with respect to 2007. SMEs will be the last to benefit from this flow, though. Unfortunately, we have plenty of S's but not enough M's, exactly the opposite of Germany. We should make it our quest to increase the number of

M's because they are good at exporting and easier to finance. That would raise productivity and salaries could go up.

What risks are there in the short-to-medium term?

Interest rate rise is the most obvious. The current situation indicates we are at a point of low inflation, which means interest rates will remain low. If that changes and inflation starts to appear in the US earlier than expected, with the attending increase in short- and long-term interest rates, that would be a hard blow for Spain as it would mean costlier borrowing and therefore less money left for consumption. There is also the risk of deflation, which would increase the debt burden and lessen people's consumption capacity. There is an associated political risk: as soon as things get better, the will to reform diminishes and complacency sets in. Having said this, most reforms have already been accomplished; only the fiscal reform is pending.

But that is gradually being implemented.

500,000 public sector jobs have been cut and pensions and public servant salaries are rising below nominal GDP. Spain still has a large primary fiscal deficit, though, which Italy for instance does not have to face. The right balance between the private and public sectors has been neglected in Spain. Then there is also financing risk, but the most serious threat is over. And fiscal deficit risk, which is often confused with structural risk. If you win the lottery, you do not suddenly take on two butlers. The lottery is a one-off but butlers have to be paid every month. That is what Spanish politicians did with the 40 billion euros revenues generated during the property boom (i.e. non-recurrent) - we spent them from 2003 to 2007 on recurrent expenses. The way to fix that is either a permanent raise in taxation or a permanent reduction in expenditure. We still have EUR 22 billion in structural deficit to deal with.

Is it not suicidal to transfer one's production capacity to other countries?

The UK decided services were the way forward and France followed them. Ultimately, Germany has been proved right. Industry is one sector that is definitely going

Do the myths about the Spanish economy live on?

Myths are sustained by ideas that are persistently repeated inside and outside Spain. However, when Spain reaches its first surplus, there is hardly any media coverage. A part of the financial markets went short on Spanish bonds in the spring of 2011 and, for the rest of that year and the next, gloomy forecasts went round saying Spain would default. So everyone starts propagating that gloom and generating the vicious cycle that Spain is about to default, when the last time that happened was in 1883. In the autumn of 2012 people started putting some sense into all this behavioural finance.

to thrive in Spain. When the democratic system was established in the mid 1970s, industry accounted for 35% of GDP; now it is only 14%. Even so, our situation is better than the US's. Clearly, Spain's high productivity and competitive labour costs are going to make us the factory of Europe. On the downside, industrial revival will not create as many jobs as construction would. To put it another way, high productivity generates fewer jobs.

Might corruption be included among Spain's risks?

We are now suffering the consequences of all the profiteering that took place during the property boom years. When the tide ebbs, it exposes those responsible. Germany had very serious corruption issues but their intolerance solved the problem. In Spain, on the other hand, as in Italy, we tend to be more tolerant. Germans believe in their institutions; here, not so much. That is really concerning and a major risk. Spanish society is currently extremely belligerent towards corruption cases, which is very positive.

The Spanish government must be quite pleased with your conclusions.

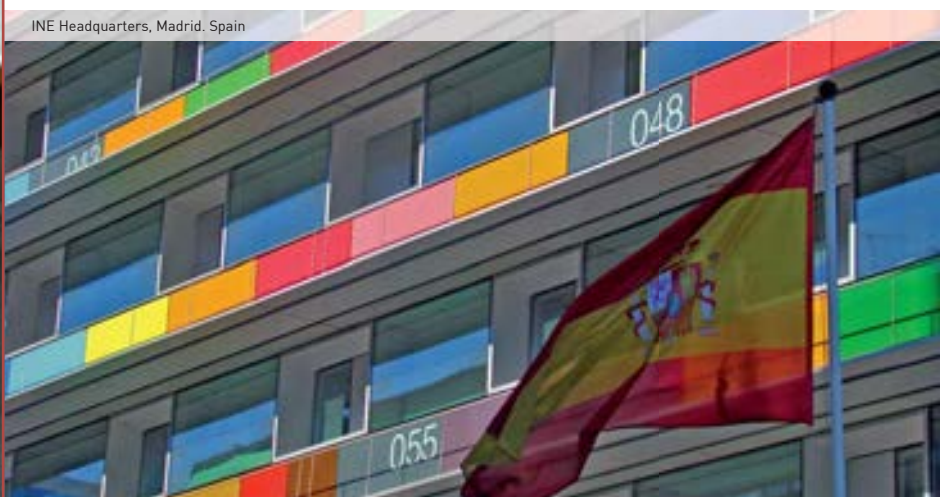
I suppose they are, but I give credit to Spanish society as a whole, not just the government, for the fact that exports account for 35% of GDP. It is the people who have travelled the world over to market their products who have succeeded, not politicians. It is a heroic achievement on the part of Spanish exporters. We have taught the rest of the world a lesson.

The current situation indicates we are at a point of low inflation with low interest rates, but a rise in long-term interest rates would be a hard blow for Spain, as it would mean costlier borrowing and therefore less money left for consumption

interview with

Gregorio Izquierdo

President
INE (Spanish National Statistics Institute)
Madrid - Spain



Gregorio Izquierdo Llanes holds a PhD in applied economics from the *Autónoma* University of Madrid and is an accredited tenured university lecturer. He was appointed president of the Spanish National Statistics Institute (INE) in December 2011. Previously, he was head of analysis and surveys at the Institute for Economic Studies and head of economics at the Circle of Employers. He has written five books and more than 40 articles for scientific journals. He has led more than 70 publicly-funded research projects and, in 2000, he won the «Ángel Herrera» award for social sciences, a national accolade given by the San Pablo CEU University Foundation.

Izquierdo has taught at the Spanish National Distance-Learning University (UNED, where he is a tenured lecturer in applied economics), the University College of Financial Studies (CUNEF), the King Juan Carlos University, the School of Diplomacy and the Pontifical University of Comillas, in the areas of economic environment and applied economics.

Looking back on his past two years at the helm of the Institute, Izquierdo is satisfied personally as well as professionally. «My job as president of the INE has allowed me to pursue my vocation, as a public servant, in a position that requires advanced technical qualifications combining the two areas I have always been passionate about: statistics and economics. Although needless to say,» he goes on, «the INE's numerous accomplishments of the past two and a half years are the result of a team effort by more than 4,000 people.»

«The statistical operations with greater impact on the media are the Quarterly National Accounts, the Labour Force Survey (LFS), and the Consumer Price Index (CPI)»

«Information and communication technologies play an essential role in the INE's day-to-day activity,» says Gregorio Izquierdo. Our website had more than 10 million visits in 2013. «The INE's demographic statistics have reached a high degree of development in the past few years and are now at the forefront of our neighbouring countries.»

The INE handles a huge amount of statistical information covering all areas on the economic, demographic and social spheres. Who is it all aimed at?

The amount of information published by the INE is indeed massive. We produce 156 statistical operations, 45 of which are short-term. Each product has a different target audience, in order to meet needs as varied as personal curiosity about a specific datum, complex analysis for scientific research, newspaper articles, software development or prediction model design.

The INE and communications

How are the data published?

Statistics are presented on the INE website in different formats: press releases (some 280 a

year), results tables and time series. All these are designed to meet the needs of the different kinds of users.

We also provide two recently developed applications. The first calculates the variation in the consumer price index (CPI) between two points in time. It is used to update rents and receives more than 70,000 visits every month. The second shows the number of people included in the municipal register of a given town. This one receives some 140,000 visits every month. Alongside them, there is another tool that displays the frequency of names and surnames, with 350,000 monthly visits.

Our educational website «*Explica*» describes basic notions of statistics and offers tutorials on how to conduct a survey or how best to present statistical data, as well as informative videos on INE products.

We can say the INE generates a gross social value of the order of two euros for every euro invested in statistics



Statistical operations with greater impact on the media are the Labour Force Survey, the Quarterly National Accounts and the Consumer Price Index

We publish several specialist magazines (*másINE*, *Revista Índice* and *Estadística Española*), which are yet another medium for people to learn about what we do and where we source our information. These magazines are also instrumental in the development of scientific knowledge in the field of statistics. Since 2010, the INE website provides access to a collection of working papers aimed at more advanced users. This way, we help to disseminate the results of original research studies.

Is the INE's information reaching the general public?

In June 2012 the INE website received an Honourable Mention in the PSI Alliance 5 Star Awards, which is evidence of our success in spreading statistical information. This award is granted to European public institutions that provide the best conditions for accessing and reusing the information they handle.

To find out about users' needs, we can rely on the High Council on Statistics¹. Additionally, the INE conducts user satisfaction surveys

approximately every four years. The last one was carried out in late 2013 and the provisional results indicate a high degree of public trust in official statistics.

Economic value

Which is the most valuable survey in social terms?

In the second half of 2012 we began measuring the economic value of the impact the INE's statistical information has on the media, with a view to gaining a better perspective on the general public's opinion of what we offer. Finding out what users think about each individual product helps us optimise our use of resources because that way we know what they are interested in.

In global terms, we calculated the INE's statistical operations in 2013 to be worth EUR 382 million on aggregate. If we compare this figure with our total budget for 2013 (EUR 185 million), we can say that we have generated a

¹ The High Council on Statistics is a Consultative Body of state statistical services and social participation of respondents, producers and users of statistics.

62.68	€	7 670.30
89.38	€	2 184.55
20.92	€	8 493.42
97.84	€	9 895.6
7.53	€	9 622
75.09	€	4 51
20.20	€	7
25.48	€	8
1.33	€	9
27.53	€	
19.65	€	
18.54	€	
15.42	€	

gross social value of the order of two euros for every euro invested in statistics.

Statistical operations with greater impact on the media are the Quarterly National Accounts, the Labour Force Survey, and the Consumer Price Index.

How can the public access your products and services?

We have set up a number of channels for users to send queries and request the services on offer. Anyone can use them to access our products and services.

Our online communication channels are: the INE website (www.ine.es) -which as well as the largest offer of data available for consultation provides an online form for users to send in their queries and suggestions- and the INE Electronic Office (<https://sede.ine.gob.es/>).

We also provide personal assistance in a number of ways: the INE central and provincial offices have departments to that effect; the library service, which provides access to the INE library's specialist resources; our phone-query line, which includes automatic access to

some statistical indicators and personalised service; our email (www.ine.es/infoine/) and telephone helplines (+34 91 583 91 00), which users can use to ask about specific matters; and the statistical information service *Infoeuropea*, which deals with queries on data published by Eurostat.

Queries are handled by specialist staff, so the quality of all the services is guaranteed.

ICT advancement adds to our efficiency by enabling us to produce more statistics with a smaller budget and less staff

New technologies and security

What role do new technologies play in the INE?

Information and communication technologies (ICT) play an essential part in the INE's day-to-day activity. In fact, we use them throughout the productive process, from sample design to results publication. ICT advancement adds to our efficiency by enabling us to produce more statistics with a smaller budget and workforce.

On the side of data publication, as well as providing an ever larger number of tables and data series, we now have social media presence through our Twitter account @es_INE. Our followers grow by the day - they already numbered almost 15,000 by mid June. We use the Twitter account to announce statistics publications and share links to press releases and more in-depth information.

What challenges does the INE face in terms of data security?

The principle of statistical confidentiality protects information during all phases of the production process (design, collection, processing and dissemination). In accordance with this principle, the statistical services are required to take the appropriate organizational and technical measures to protect the information.

The INE's security policy lays down the security guidelines that must be followed across the organisation to ensure our information and services are protected. Apart from this policy, which guarantees the physical security of our data, we use various anonymisation procedures to preserve the statistical confidentiality of the data, from an operation's design to its publication.

The INE faces significant challenges in relation to our partnership with the European Statistical

Statistics applied to insurance

«We believe statistics are crucial for insurance companies to the extent that they enable them to calculate premiums more accurately and update them continuously based on the demographic information we publish: mortality tables, most common causes of death and population figures,» says Izquierdo. «The INE's demographic statistics have reached a high degree of development in the past few years, placing us at the forefront of our neighbouring countries.»

The INE also gauges the insurance business as part of the Spanish National Accounts, while the Directorate-General for Insurance and Pension Funds -a part of the Ministry of Economy and Competitiveness- produces the following insurance-related statistics:

- ▶ Private insurance statistics (yearly).
- ▶ Private insurance statistics (quarterly).
- ▶ Supplementary social welfare statistics.

The INE's security policy lays down the security guidelines that must be followed across the organisation to ensure our information and services are protected

System (ESS). One of them is the use of Big Data, which is available from different sources but cannot be processed using traditional software and techniques on account of its size. Another one is the exchange of microdata in certain fields of statistics between different countries. Both projects require a strong data protection and security policy.

Challenges of public statistics

The INE recently completed the process of deseasonalising its short-term statistical series. Why did you decide to do this?

Short-term economic statistics are extremely useful for analysing economic cycles, but they are subject to seasonal and calendar effects that blur our understanding of economic phenomena.



Seasonal fluctuations form a pattern that roughly repeats itself every year. Calendar effects are defined as the impact on the time series for a given variable caused by differences in the structure of the months (or quarters) of successive years (in terms of length and makeup), while all other factors that affect that variable remain constant.

The key purpose of seasonal adjustment is to filter seasonal fluctuations and calendar effects out of statistical series so that the information we deliver is clearer and easier to interpret.

Other challenges faced by public statistics include process standardisation and systematisation. What projects have been set in train to address them?

Eurostat, the European Union's statistical office, is encouraging the use of more integrated models for statistical production. This is the challenge that European statistical offices are currently facing, which are focusing their efforts on establishing common languages to use in statistical processes and developing tools to maximise standardisation.



At the INE, we use the Generic Statistical Business Process Model [GSBPM²], which was developed within the United Nations. When we set out to improve our production processes, we always study the manuals and recommendations issued by international organisations. We also consult with other EU member states, particularly through the European Statistical System working groups. So there is a high degree of coordination at the European level, which is enabling our processes to become increasingly standardised and systematised.

Eurostat has called for the INE to be given a more prominent role, with a broader scope and greater powers for oversight and control of Spanish statistics. What is your opinion of this?

This is something the EU has been asking the member countries of the European Statistical System to do for a few years now. It is in line with the INE's powers under Law 12/89 on the Public Statistical Function, i.e. overall coordination of the central government's

INE figures

The INE website (<https://sede.ine.gob.es/>) had more than 10 million visits in 2013, with 150 million pages viewed, 28 million database consultations, 17 million uses of applications, 100,000 downloads of methodological reports on statistical operations, 9,325 queries from Infoine and 4,671 requests for customised information.

The most frequently used statistical operations in 2013 were: LFS with 2,190,872 uses, CPI with 1,513,642 uses, and Population Figures (municipal registers and national population census) with 1,995,226 uses. Next were national accounts and hotel statistics.

Specialist magazines published by the INE: *másINE*, *Revista Índice*, *Estadística Española*.

«Contacting the INE» on the webpage:
<http://www.ine.es/infoine/>

Contact number: +34 91 583 91 00

«Explica» educational website.

Twitter account: @es_INE



statistical service, and control and supervision of all its technical aspects.

To be specific, Eurostat has always held that the INE should have a bigger role in fiscal statistics for the excessive deficit procedure. But most countries, including Spain, rely on collaboration with the comptroller offices of their ministries of finance and their central banks to produce fiscal statistics.

The Spanish experience, which began in 1993, has been very successful so far, so any change in this respect should be approached with extreme caution, not least because in this area the principle of subsidiarity allows member states to adapt organisations to their own legislation, accounting regulations and budgets.

Eurostat, the European Union's statistical office, is encouraging the use of new and more integrated models for statistical production

² GSBFM: Generic Statistical Business Process Model.

New statistics and improved processes drive the INE forward

The INE has published four new operations so far in 2014: Continuous Household Survey, Business Turnover Index, Statistics on Labour Force Flows, and Foreclosure Statistics. The purpose of the latter is to produce quarterly information on ongoing judicial foreclosures, providing insight into trends in home evictions.

In addition, the INE has published data from the Labour Force Survey, including up-to-date population and household data based on the Population and Housing censuses of 2011 and is implementing the new National Classification of Education (CNED 2014).

The 2010 EU Regulations on the European System of Accounts, which will be implemented in national accounting as from this year, require all member states to change the base year and adapt to the new system, with the new weighting schemes and definitions it entails. «We will also be including the illegal, underground economy in calculations of the GDP, again following EU guidelines,» says Izquierdo.

Other new initiatives for this year include the INE's first Survey on the Integration of University Graduates into the Labour Market and a pilot study of the Survey on International Student Mobility.

In the area of socio-demographic statistics, the INE will launch the Household Projections operation, which will generate data with a 15-year horizon (2014–2029). And

in 2015 it will roll out the new Short-term Stock Survey, which will deliver information on immediate trends in the volume of industrial and commercial stocks.

The INE also has important projects where processes are concerned, such as, increasing the use of administrative records, in order to reduce data collection costs and the burden on respondents. «In a word, to be more efficient,» stresses Izquierdo. The Institute is also taking action to reduce the chances of companies taking part in more than one survey, and has adopted a system that enables businesses to provide their answers in XML files drawing from their own IT systems. In some surveys, forms aimed at small companies have been shortened.

A further INE project will integrate all the information collection channels used in INE operations (personal interviews, telephone surveys, online forms) by broadening the Data Collection and Management Integration System (IRIA) to take in all statistics. Work is also under way on a new Integrated System for Population and Territorial Management (SIGPT), which brings together the processes of municipal registers and electoral rolls.

The INE has been stepping up the use of spatial data, geographic information systems and geo-statistical methods for years as part of its data production and publication processes, following recommendations from Eurostat and the UN.



agenda

COURSE ORGANISED BY FUNDACIÓN MAPFRE

Course	Method	Beginning	End	
Reinsurance	<i>E-learning</i>	13 October 2014	6 February 2015	

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