The new rate for extraordinary risks with the Consorcio de Compensación de Seguros from 01/07/2018

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1. Introduction

The Consorcio de Compensación de Seguros (hereinafter CCS or Consorcio) plays an essential role in contributing to the stability of the insurance sector and in providing general access to insuring the extraordinary risks, by means of the socialization of the price of the cover through the compensation among risks that are different because of their nature and their geographic location across Spain.

This new rate for extraordinary risks (ER) was approved by Resolution of 28 March 2018 by the Directorate-General for Insurance and Pension Funds (DGSFP) and has a triple objective: (i) to slow down the growth rate of the equalization reserve; (ii) to simplify the practical application of the tariff; and (iii) introduce several technical and methodological improvements that were already being used after their publication in the Consorcio webpage.

From its origins in 1954, dynamism is one of the elements that marked the ways of functioning of Consorcio, understanding it as the ability to adapt permanently the extraordinary risks cover to the circumstances of the insurance sector.

Within this framework, the surcharges for extraordinary risks with Consorcio have being adjusted in recent years considering the evolution of its equalization reserve, the losses from extraordinary risks' claims and the sufficiency of Consorcio to face up different PML scenarios.

As the most immediate precedents of the revision of the rate for CCS' extraordinary risks we could mention the reduction carried out in November 2008, which meant a mean cut of 15% of the rate as a whole, and the reduction in the surcharge of the rate for automobiles, a cut of 40% applied in 2016, that came along with the extension of the cover for extraordinary risks to vehicles only counting with mandatory third-party liability insurance.

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The following lines show the essentials of the actuarial study supporting the new rate. This analysis has been carried out independently for each risk line covered, that is, property loss, personal injury and business interruption.

The principle of compensation among risks has being kept, being the proposed tariff unique for all risks covered (natural and man-made), as well as the principles of geographical compensation, being no distinction among areas made, and compensation over time.

Base data are going to be, in all cases, property of CCS both in risk exposure (exposed capitals, after the statistical information given by insurance undertakings, and income from surcharges) and in losses paid during the period 1987-2016 (2004-2016 for business interruption).

The rate in force until 30 June 2018, approved by Resolution of 27 November 2006 by the DGSFP, is summarized in the following table:

	CURRENT RATING: ANNUAL rate out of sum assured or ANNUAL loading in euros
Viviendas y sus comunidades	0.08‰ + 0.005‰ for pecuniary losses
Offices	0.12‰
Business & other simple risks	0.18‰
Industrial	0.21‰
Civil works	from 0.28‰
Motor vehicles	Private car: 2.10€
Pecuniary losses	0.25‰ , except housing
Persons (life and accidents)	0.005‰ and 0.00042‰

2. Rate for property damage

Trends in the key figures regarding ER insurance property feature in the table below:

GLOBAL FIGURES FOR EXTRAORDINARY RISK - PROPERTY DAMAGE				
Year	Capital Exposure	Loading	Claims	Combined Ratio
1987	1,286,820	145	446	308%
1988	1,351,161	152	144	95%
1989	1,418,719	216	367	170%
1990	1,489,655	234	74	32%
1991	1,587,883	253	95	37%
1992	1,742,521	271	121	45%
1993	1,843,044	284	77	27%

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GLOBAL FIGURES FOR EXTRAORDINARY RISK - PROPERTY DAMAGE				
Year	Capital Exposure	Loading	Claims	Combined Ratio
1994	1,946,266	293	163	56%
1995	1,961,764	304	175	58%
1996	2,076,836	320	225	70%
1997	2,285,820	352	417	118%
1998	2,565,171	374	104	28%
1999	2,655,789	396	199	50%
2000	2,674,980	426	290	68%
2001	2,933,079	449	279	62%
2002	3,059,057	453	237	52%
2003	3,383,884	500	175	35%
2004	3,642,977	530	184	35%
2005	3,832,693	564	254	45%
2006	4,221,980	602	293	49%
2007	4,417,284	625	375	60%
2008	4,583,416	661	367	56%
2009	4,865,635	624	852	136%
2010	5,014,652	601	525	87%
2011	5,105,029	606	744	123%
2012	5,116,512	600	327	55%
2013	4,983,067	614	228	37%
2014	5,113,296	632	214	34%
2015	5,271,947	645	233	36%
2016	5,351,376	641	252	39%
TOTAL	**97,782,313**	**13,367**	**8,437**	**63%**

Figures in millions of euros updated as of 31/12/16.
Source: ER Statistical Records, 1971-2016 Series.

The average combined ratio of 63% has made it possible to provide for the reserve mentioned in the previous section and consider a reduction in the rates to be applied.

Given that the combined ratio by risk class is given, we can note an uneven performance for the different groups:

COMBINED RATIO

YEARS	RISK CLASS - PROPERTY						TOTAL PROPERTY
	Homes	Offices	Bus. and oth. s. risks	Industrial	Civil works	Motor vehicles	
DATASET: 1987 - 2016	51%	117%	139%	60%	329%	32%	63%

Source: ER Statistical Records, 1971-2016 Series.

The groups in deficit will not have their rates changed for the following reasons:

- **Offices,** this is a group that lacks critical mass (it represents 1.8% of capital exposure, 1.1% of loading and 2.2% of claims incurred for the dataset under review).

- **Business and other simple risks**, although this is a group that is permanently in a state of imbalance, it can be joined to another group with a favourable result on average, industrials, thereby achieving not only a technical balance but also simplification of the rate since it is not always easy to deal with factors such as "processing", "handling" or "stock of industrial machinery" to differentiate between one group or another.

- **Civil works**, even though this is a grouping with a high level of claims, it does not have enough critical mass (0.1% of capital, 0.6% of loading and 3% of claims incurred).

Likewise, the rate for **motor vehicles** will not be changed either given that it has already been reduced by application of the DGSFP Resolution of 31 May 2016.

In this situation actuarial techniques have been applied to determine the new rates for the groups:

- Homes and owners' associations thereof
- Business, industry and other risks

The next steps in the process of premium price formation and the results that have been obtained are as follows:

a) Pure risk premium (Pr)
Is the mathematical ratio between the set of pay-outs valued as the annual mean of claims assumed by the CCS in the dataset analysed and the corresponding mean amount of capital exposure. The calculation is done by risk class.

Pr = Mean pay-out / Mean capital exposure

b) Loaded risk premium (Pr rec, for the Spanish)
Given the nature of the risks covered, particularly as regards earthquakes and volcanoes, where the claims experience is little or negligible, and for the sake of technical equilibrium, it becomes necessary to factor in a significant "loading for contingencies" to cover random and unfavourable deviations in terms of loss events in relation to their mean value which, together with the equalisation reserve, contributes to the stability of the system given that no mechanisms currently exist for transferring risk.

Pr rec = Pr x (1 + loading for contingencies)

c) Tariff rate (P")

The tariff rate is defined as:

P" = Pr rec + g P", in other words:

P" = Pr rec / (1 – g)

where:

P": is the tariff rate
Pr rec: is the loaded risk premium
g: is the percentage of expenses out of the premium

From aggregating the various elements described we can obtain the annual business premium rates which, while keeping to the balancing principle, appear fair and adequate according to the nature of the risks written by the CCS.

The results obtained are given in the following table:

PROPERTY DAMAGE	Rates to apply up to 30/06/2018	Rates to apply up to 01/07/2018
Homes & owners' assns.	0.08‰	**0.07‰**
Offices	0.12‰	0.12‰
Business and oth. s. risks.	0.18‰	**0.18‰**
Industrial	0.21‰	
Civil Works	from 0.28‰	from 0.28‰
Motor vehicles	Private car: 2.10€	Private car: 2.10€

d) Other significant adjustments

1. Reduced rates: to applied to capital over 600 million euros:

It is considered worthwhile to continue with this system of rating and the "reduced rate / normal rate" ratio that currently holds, with the reduced rates being left at the following values:

For housing:	**0.05 per mille**
For offices:	**0.08 per mille**
For business, industry and the rest:	**0.15 per mille**

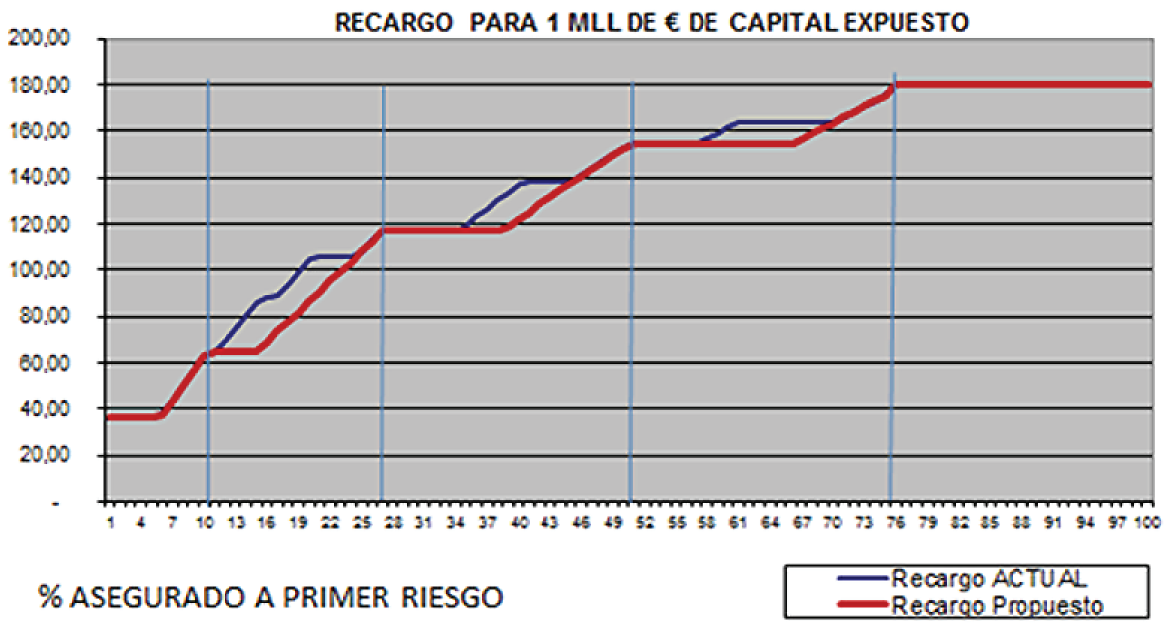
2. Temporal nature: The established rates are benchmarked annually; for policies lasting less than or over a year an adjustment is made in proportion to the fraction of time to which the policy cover extends.

3. First risk insurance: To lessen the complexity involved in applying the table of first risks, the number of brackets has been reduced as per the following table:

Bracket by % Limit / Capital exposure	Ratio ("C" for the Spanish)	Percentage P
From 0 to 10	3.5	20%
Over 10 to 27	2.4	36%
Over 27 to 50	1.7	65%
Over 50 to 75	1.3	86%
Over 75 to 100	-	100%

Loading = MAX (C x rate x Limit; P x rate x Capital exposure).

The loading is graphically represented thus (for one million euros of capital exposure and first risk insurance rising from 1 euro to 100% of capital exposure):



From the chart it can be seen that in all situations the loading from applying the new rate (red line) is going to be less than or equal to the preceding loading (blue line).

3. Rate for personal injury

Data trends for ER for personal injury are as given below:

GLOBAL ER FIGURES - PERSONAL INJURY					
Year	Capital exposure	Capital w/o accidents in travel	Loading	Claims incurred	Combined Ratio
1987	3,481,899	1,768,805	7	3	43%
1988	3,655,994	1,857,245	8	2	27%
1989	3,838,794	1,950,107	11	3	28%
1990	4,030,734	2,047,613	12	2	21%
1991	2,751,037	1,201,873	14	4	32%
1992	2,829,755	1,322,514	16	5	30%
1993	3,413,063	1,421,746	16	3	16%
1994	3,440,023	1,747,532	17	2	14%
1995	3,181,540	1,842,493	18	5	27%
1996	4,389,550	2,943,457	18	5	27%
1997	5,183,981	2,738,801	22	3	14%
1998	5,563,230	2,656,554	22	3	13%
1999	7,563,950	2,459,192	23	2	8%
2000	8,643,360	2,634,496	23	7	31%
2001	6,352,016	2,323,313	24	4	18%
2002	6,719,327	2,184,588	28	3	12%
2003	6,456,719	2,492,810	29	3	10%
2004	8,498,249	2,849,293	28	52	188%
2005	8,560,409	3,131,055	25	2	7%
2006	10,449,332	3,184,956	28	3	11%
2007	10,685,547	3,365,520	27	6	21%
2008	12,281,108	3,493,730	25	5	20%
2009	11,777,356	3,589,738	24	4	15%
2010	9,731,760	4,647,110	24	4	17%
2011	9,469,615	4,714,353	23	5	20%
2012	7,919,376	4,425,347	22	2	8%
2013	8,578,188	4,357,720	20	2	9%
2014	9,345,735	4,367,823	15	1	8%
2015	9,213,095	4,961,067	17	3	17%
2016	10,149,209	5,308,036	18	1	8%
TOTAL	**208,153,951**	**87,988,886**	**604**	**150**	**25%**

Amounts in millions of euros updated as of 31/12/16.
Source: ER Statistical Records, 1971-2016 Series.

The average combined ratio of 25% has made it possible to allocate funds to the reserve mentioned in section one and enable deal with a reduction in the rates to be applied.

For personal injury there are two rates, the normal rate (currently at 0.005 per mille) that applies to all life insurance policies (exclusively or mainly for death) and those for accidents, except for "travel accident policies associated with paying for the journey with a credit card", to which a reduced rate is applied (0.00042 per mille).

The procedure followed in the above section is also pursued to establish the new normal rate for persons. For these purposes all the claims incurred in the dataset are set against the capital without accidents in travel, since no policy of the kind "travel accident insurance policies associated with paying for the journey by credit card" has claims incurred; finally, the reduction obtained for the normal rate (of 40%) will be applied to the reduced rate.

The results obtained are:

PERSONAL INJURY	Rates to apply up to 30/06/2018	Rates to apply from 01/07/2018
Persons (life and accidents)	0.005‰ y 0.00042‰	**0.0035‰ y 0.00025‰**

Other significant adjustments:

1. Fractional premiums: the additional loading of 10% is being removed.

2. Temporal nature: The established rates are referenced for a year; for policies lasting less than or for more than the year an adjustment is made in proportion to the fraction of time to which the policy's coverage extends.

3. First risk insurance: To reduce complexity in applying the rate and given the fact that it is of little use as regards personal injury, the table is being eliminated and rate setting is done as a limit per tariff rate.

4. Rate for business interruption

Trends in data relating to ER for business interruption are as given below:

GLOBAL ER FIGURES - BUSINESS INTERRUPTION				
Year	Capital Exposure without housing	Loading	Claims incurred	Combined Ratio
2004	52,456	0	0	7%
2005	186,717	33	18	56%
2006	196,683	42	10	23%
2007	182,486	45	9	20%
2008	224,263	48	10	20%
2009	233,647	44	20	46%
2010	237,154	42	35	85%

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GLOBAL ER FIGURES - BUSINESS INTERRUPTION				
Year	Capital Exposure without housing	Loading	Claims incurred	Combined Ratio
2011	219,201	44	34	77%
2012	227,509	45	11	25%
2013	222,210	41	9	22%
2014	244,986	44	5	12%
2015	263,255	46	9	20%
2016	300,775	54	6	12%
TOTAL	**2,791,343**	**527**	**176**	**34%**

Amounts in millions of euros updated as of 31/12/16.
Source: ER Statistical Records, 1971-2016 Series.

The combined ratios for the two existing groups, housing and the rest, are thus:

YEARS	RISK CLASS - BUSINESS INTERRUPTION		TOTAL ASSETS
	Housing	Rest	
2004 - 2016 SET	**20%**	**38%**	**34%**

Source: ER Statistical Records, 1971-2016 Series.

Again, these results have enabled a potential reduction in rates to be studied.

After repeating the procedure for the two existing rates, housing and the rest, the results obtained are:

PECUNIARY LOSSES	Rates to apply up to 30/06/2018	Rates to apply from 01/07/2018
Housing	0.005‰	**0.0035‰**
Rest	0.25‰	**0.18‰**

Other significant adjustments:

1. Temporal nature: The established rates are referenced for a year; for policies lasting less than or for more than the year an adjustment is made in proportion to the fraction of time to which the policy's coverage extends.

2. Specific rates: Application of these is being extended and the requirement removed whereby BI coverage has to be expressed as a percentage of damage capital. To calculate the specific rate the current specific rate to asset rate is being maintained, which leaves the specific rates at **0.135‰** and **0.195‰**, for offices and others respectively.

5. Overall results

The estimates for the impact of the new tariff for extraordinary risks on the annual income of the CCS throw up a result of an expected reduction of 13%.

If this had been applied in the 2017 financial year, it would have represented an income reduction of 95 million euros, as can be observed from the following table.

	Accrued loading for current tariff in 2017 (without collecting commission)	Reduction in annual loading from applying the new tariff for 2017		Estimated accrued loading for new tariff 2017 (without collecting commission)
		Mill. €	%	
Property	643	-71	-11%	572
Persons	19	-8	-42%	11
BI	54	-16	-30%	38
TOTAL	**716**	**-95**	**-13%**	**621**

Amounts in millions of euros.