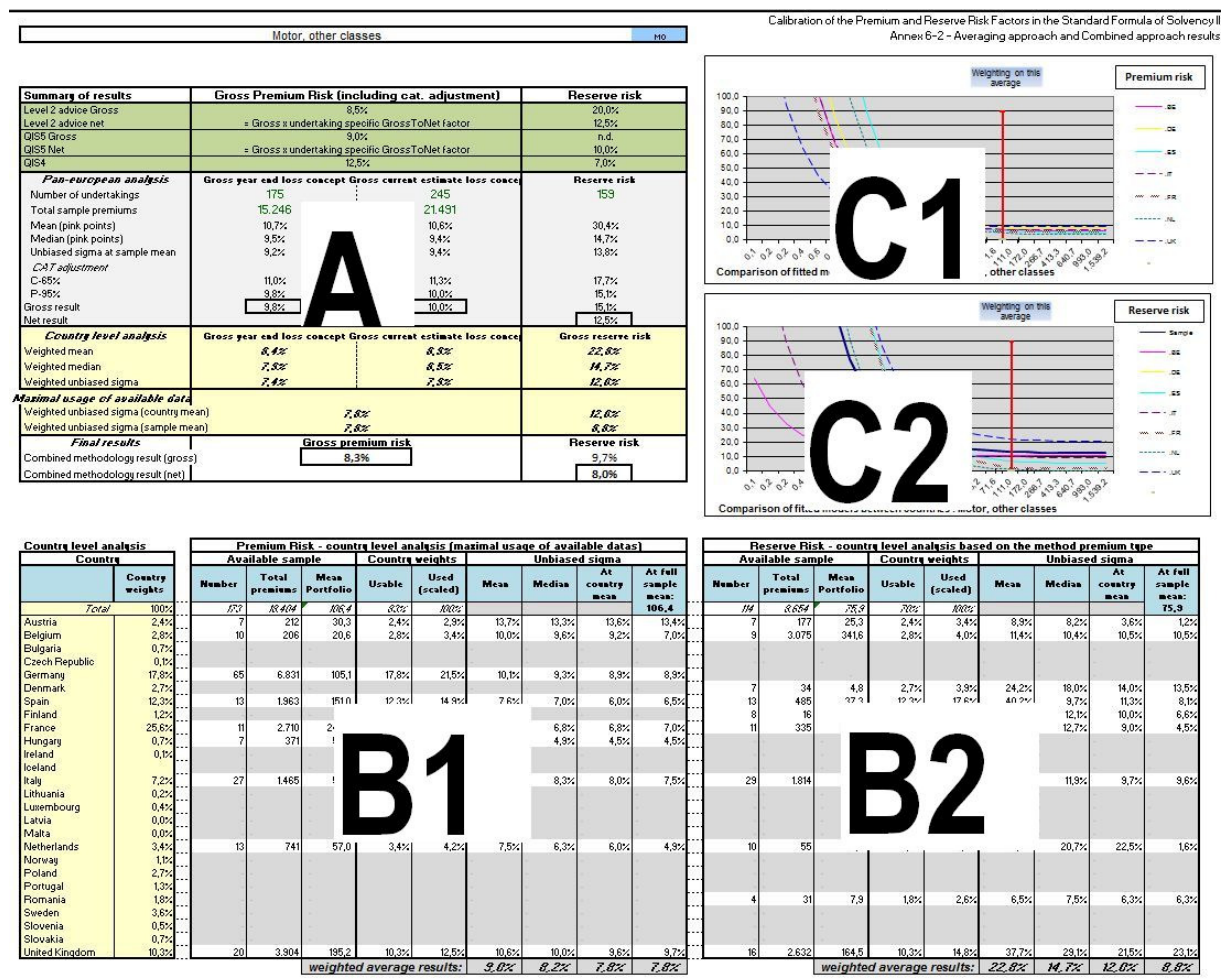


Annex 6_2 Averaging and Combined approach - Report JWG on non-life and Health non-SLT Calibration

This annex presents the Averaging and Combined approach results using a 5-areas template (A, B1, B2, C1 and C2) applied for each line of business.

Both approaches use the same underlying methodology: the fitting of a set of individual datasets produce a size dependent modelling for which a specific volatility named “unbiased sigma” is retained which correspond to the volatility according to the model for a portfolio size matching the mean of the available dataset sizes. The real outcome of the modelling is a curve providing volatilities for any portfolio size. On top of this main result, the mean and median of the individual volatilities can be presented to provide summarised information on the goodness of fit¹.



Area A contains the line of business level results. This area is split in 4 parts. The first part of this table (green background) reminds the factors previously known (Outcome of the CEIOPS Level 2 advice on calibration and factors finally used for the QIS5 exercise). The second area (grey background) include detailed information from the pan-european analysis (number of undertaking in the sample and total premium for these ; the mean, median and unbiased sigma from this ; the level of the adjustment for observed catastrophic events ; the outcome of the compliance analysis based on the company and policyholder views and the final results from this approach). The third area (yellow background) presents the results from the averaging approach. For premium risk, both the results obtained using the two loss concepts explored and the result using the maximum use of

¹ The simple mean and median of the observed volatility at individual portfolio level are also presented under the goodness of fit scatter plots in Annex 6-1.

available data is presented. The last part (white background) present the final outcome, based on the combined methodology. For premium risk, only gross results are available.

Areas B1 and B2 presents the results at the country level² granularity. The two leftmost columns contain the country name and the country weight (premium wise) obtained from reference market data. The two tables B1 and B2 have the same structure. B1 contains premium risk information while B2 presents reserve risk information. These tables contain three set of columns. The first set (three columns wide) display the number of available datasets, the total premium, or reserve, used in the analysis and the mean portfolio size. The next two columns presents the usable country weights (same as the left column, but only for countries with datasets) and the used weights (individual weights scaled to obtain a 100% weight overall). The next four columns presents the country level information on the mean, median and estimated unbiased sigma at the country mean portfolio level. The last column allows computing the final result according to the combined approach. It differs from the preceding columns by using a common mean portfolio size, whose value is computed across the full range of datasets from the used countries (N countries, $N > 1$) instead of the datasets for only the country currently analysed (1 country). The weighted averages presented under the four rightmost columns are the ones used in Area A.

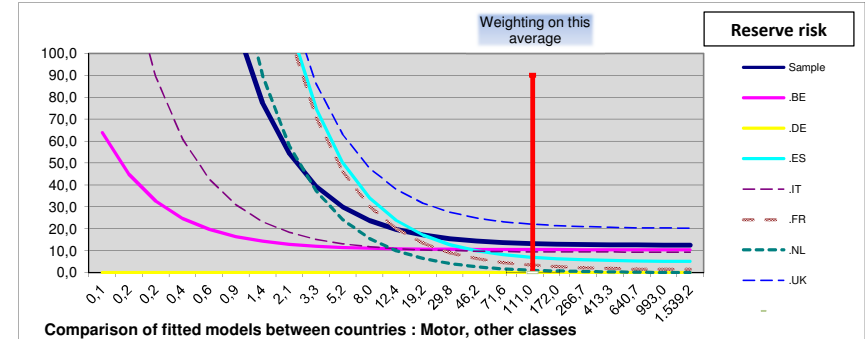
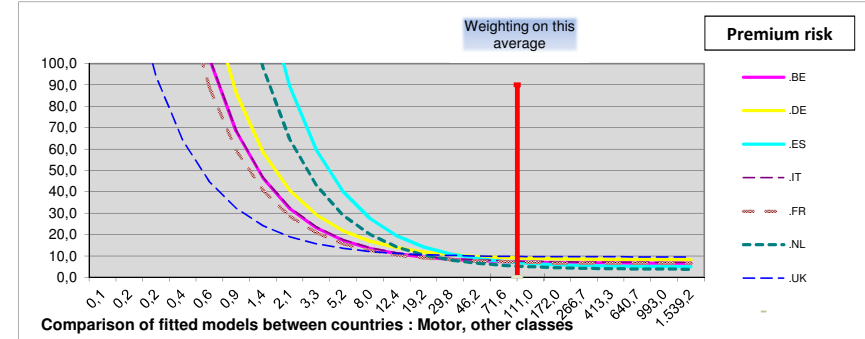
Areas C1 (premium risk) **and C2** (reserve risk) allow to visually compare the volatility curves produced with the methodology for a set of countries and the combined curve resulting from the combined methodology. In these graphs, the vertical red line display the common mean portfolio size used in the last column of Areas B1 and B2. The combined methodology applies a weighted average of the curves values at this specific portfolio size. The compliance adjustment presented in Area A can be interpreted as moving this weighting average to the right until the seeked coverage of companies or policyholders is met.

² For countries with enough underlying data to be kept in this country level analysis.

Motor, other classes MO

Summary of results	Gross Premium Risk (including cat. adjustment)		Reserve risk
Level 2 advice Gross	8,5%		20,0%
Level 2 advice net	= Gross x undertaking specific GrossToNet factor		12,5%
QIS5 Gross	9,0%		n.d.
QIS5 Net	= Gross x undertaking specific GrossToNet factor		10,0%
QIS4	12,5%		7,0%
Pan-european analysis	Gross year end loss concept	Gross current estimate loss concept	Reserve risk
Number of undertakings	175	245	159
Total sample premiums	15.246	21.491	
Mean (pink points)	10,7%	10,6%	30,4%
Median (pink points)	9,5%	9,4%	14,7%
Unbiased sigma at sample mean	9,2%	9,4%	13,8%
CAT adjustment			
C-65%	11,0%	11,3%	17,7%
P-95%	9,8%	10,0%	15,1%
Gross result	9,8%		15,1%
Net result		10,0%	12,5%
Country level analysis	Gross year end loss concept	Gross current estimate loss concept	Gross reserve risk
Weighted mean	8,4%	8,9%	22,8%
Weighted median	7,9%	8,5%	14,7%
Weighted unbiased sigma	7,4%	7,9%	12,0%
Maximum use of available data			
Weighted unbiased sigma (country mean)	7,8%		12,0%
Weighted unbiased sigma (sample mean)	7,8%		8,8%
Final results	Gross premium risk		Reserve risk
Combined methodology result (gross)	8,3%		9,7%
Combined methodology result (net)			8,0%

Calibration of the Premium and Reserve Risk Factors in the Standard Formula of Solvency II
Annex 6-2 - Averaging approach and Combined approach results



Country level analysis

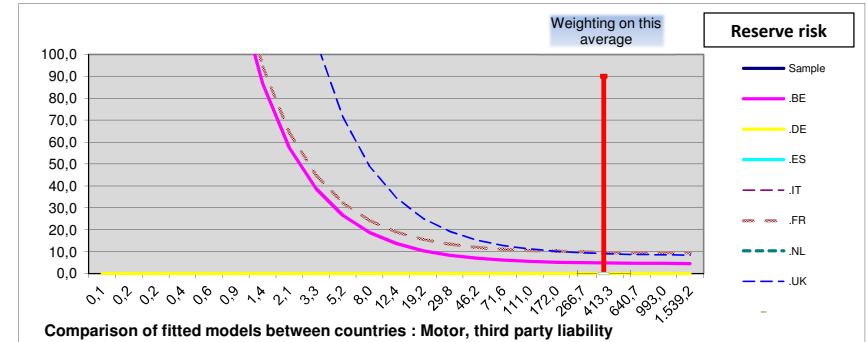
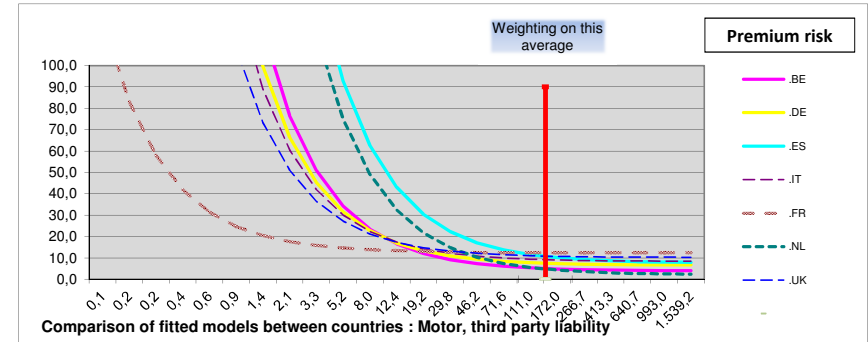
Country	Country weights	Premium Risk - country level analysis (maximal usage of available datas)										
		Available sample		Country weights		Unbiased sigma						
		Number	Total premium	Mean Portfolio	Usable	Used (scaled)	Mean	Median	At country mean	At full sample mean: 106,4		
Total	100%	173	18.404	106,4	83%	100%						
Austria	2,4%	7	212	30,3	2,4%	2,9%	13,7%	13,3%	13,6%	13,4%		
Belgium	2,8%	10	206	20,6	2,8%	3,4%	10,0%	9,6%	9,2%	7,0%		
Bulgaria	0,7%											
Czech Republic	0,1%											
Germany	17,8%	65	6.831	105,1	17,8%	21,5%	10,1%	9,3%	8,9%	8,9%		
Denmark	2,7%											
Spain	12,3%	13	1.963	151,0	12,3%	14,9%	7,6%	7,0%	6,0%	6,5%		
Finland	1,2%											
France	25,6%	11	2.710	246,4	25,6%	31,0%	7,3%	6,8%	6,8%	7,0%		
Hungary	0,7%	7	371	53,0	0,7%	0,9%	4,9%	4,9%	4,5%	4,5%		
Ireland	0,1%											
Iceland												
Italy	7,2%	27	1.465	54,3	7,2%	8,7%	11,2%	8,3%	8,0%	7,5%		
Lithuania	0,2%											
Luxembourg	0,4%											
Latvia	0,0%											
Malta	0,0%											
Netherlands	3,4%	13	741	57,0	3,4%	4,2%	7,5%	6,3%	6,0%	4,9%		
Norway	1,1%											
Poland	2,7%											
Portugal	1,3%											
Romania	1,8%											
Sweden	3,6%											
Slovenia	0,5%											
Slovakia	0,7%											
United Kingdom	10,3%	20	3.904	195,2	10,3%	12,5%	10,6%	10,0%	9,6%	9,7%		
weighted average results:							9,0%	8,2%	7,8%	7,8%		

Country	Country weights	Reserve Risk - country level analysis based on the method premium type										
		Available sample		Country weights		Unbiased sigma						
		Number	Total reserve	Mean Portfolio	Usable	Used (scaled)	Mean	Median	At country mean	At full sample mean: 75,9		
Total	100%	114	8.654	75,9	70%	100%						
Austria	2,4%	7	177	25,3	2,4%	3,4%	8,9%	8,2%	3,6%	1,2%		
Belgium	2,8%	9	3.075	341,6	2,8%	4,0%	11,4%	10,4%	10,5%	10,5%		
Bulgaria	0,7%											
Czech Republic	0,1%											
Germany	17,8%	7	34	4,8	2,7%	3,9%	24,2%	18,0%	14,0%	13,5%		
Denmark	2,7%	13	485	37,3	12,3%	17,6%	40,2%	9,7%	11,3%	8,1%		
Spain	12,3%	8	16	2,0	1,2%	1,8%	28,7%	12,1%	10,0%	6,6%		
Finland	1,2%	11	335	30,5	25,6%	36,6%	12,7%	12,7%	9,0%	4,5%		
France	25,6%											
Hungary	0,7%											
Ireland	0,1%											
Iceland												
Italy	7,2%	29	1.814	62,6	7,2%	10,3%	14,3%	11,9%	9,7%	9,6%		
Lithuania	0,2%											
Luxembourg	0,4%											
Latvia	0,0%											
Malta	0,0%											
Netherlands	3,4%	10	55	5,5	3,4%	4,9%	33,7%	20,7%	22,5%	1,6%		
Norway	1,1%											
Poland	2,7%											
Portugal	1,3%											
Romania	1,8%											
Sweden	3,6%											
Slovenia	0,5%											
Slovakia	0,7%											
United Kingdom	10,3%	4	31	7,9	1,8%	2,6%	6,5%	7,5%	6,3%	6,3%		
weighted average results:							22,8%	14,7%	12,0%	8,8%		

Motor, third party liability MTPL

Summary of results	Gross Premium Risk (including cat. adjustment)		Reserve risk
Level 2 advice Gross	11,5%		11,0%
Level 2 advice net	= Gross x undertaking specific GrossToNet factor		9,5%
QIS5 Gross	9,0%		n.d.
QIS5 Net	= Gross x undertaking specific GrossToNet factor		9,5%
QIS4	9,0%		12,0%
Pan-european analysis			
Number of undertakings	Gross year end loss concept 176	Gross current estimate loss concept 251	Reserve risk 169
Total sample premiums	24.181	36.430	
Mean (pink points)	12,2%	13,4%	17,6%
Median (pink points)	10,5%	11,4%	11,6%
Unbiased sigma at sample mean	10,8%	10,2%	8,6%
<i>CAT adjustment</i>			
C-65%	12,7%	14,0%	23,4%
P-95%	11,4%	11,6%	14,8%
Gross result	11,4%	11,6%	14,8%
Net result			11,4%
Country level analysis			
Weighted mean	11,0%	12,6%	12,2%
Weighted median	10,2%	11,1%	8,4%
Weighted unbiased sigma	9,4%	10,3%	7,0%
Maximum use of available data			
Weighted unbiased sigma (country mean)	9,3%		7,0%
Weighted unbiased sigma (sample mean)	9,0%		6,7%
Final results			
Combined methodology result (gross)	9,6%		11,5%
Combined methodology result (net)			8,9%

Calibration of the Premium and Reserve Risk Factors in the Standard Formula of Solvency II
Annex 6-2 - Averaging approach and Combined approach results



Country level analysis

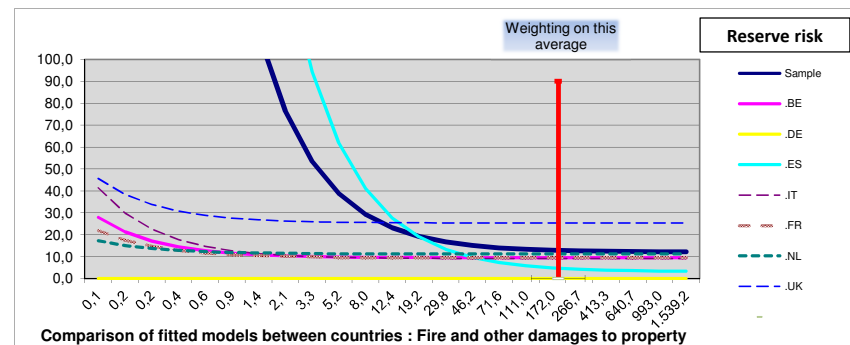
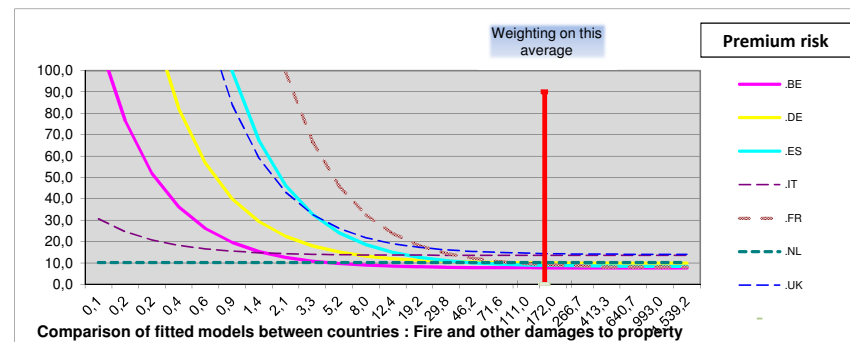
Country		Premium Risk - country level analysis (maximal usage of available datas)								
Country	Country weights	Available sample		Country weights		Unbiased sigma				
		Number	Total premium	Mean Portfolio	Usable	Used (scaled)	Mean	Median	At country mean	At full sample mean: 159,4
Total	100%	213	33.954	159,4	89%	100%				
Austria	2,3%	7	451	64,4	2,3%	2,6%	10,1%	9,4%	8,4%	7,0%
Belgium	2,8%	10	414	41,4	2,8%	3,1%	11,2%	9,2%	7,7%	4,9%
Bulgaria	0,3%									
Czech Republic										
Germany	16,6%	67	11.783	175,9	16,6%	18,6%	9,2%	7,9%	7,3%	7,4%
Denmark	1,1%	9	347	38,6	1,1%	1,3%	17,4%	17,2%	7,7%	6,3%
Spain	8,7%	14	2.436	174,0	8,7%	9,7%	12,9%	11,8%	10,1%	10,3%
Finland	0,9%									
France	9,4%	11	2.267	206,1	9,4%	10,5%	12,3%	13,2%	12,6%	12,6%
Hungary	0,6%	8	380	47,6	0,6%	0,7%	9,7%	9,8%	9,8%	9,8%
Ireland	0,1%	6	849	141,6	0,1%	0,1%	23,6%	21,0%	19,8%	19,8%
Iceland	4,1%									
Italy	23,3%	27	8.518	315,5	23,3%	26,2%	9,9%	8,9%	8,7%	9,1%
Lithuania	0,1%									
Luxembourg	0,2%									
Latvia	0,3%									
Malta	0,1%	6	24	4,0	0,1%	0,1%	11,6%	10,2%	9,1%	0,2%
Netherlands	6,3%	13	898	69,1	6,3%	7,0%	9,2%	5,7%	7,5%	4,5%
Norway	0,5%									
Poland	2,3%									
Portugal	1,4%	6	333	55,4	1,4%	1,6%	9,5%	9,3%	8,1%	7,5%
Romania	0,7%	7	230	32,9	0,7%	0,8%	18,7%	18,7%	17,3%	17,3%
Sweden	1,5%									
Slovenia	0,5%									
Slovakia	0,4%									
United Kingdom	15,6%	22	5.024	228,4	15,6%	17,5%	12,8%	12,4%	10,6%	10,8%
		weighted average results:					11,0%	10,0%	9,3%	9,0%

Country		Reserve Risk - country level analysis based on the method premium type								
Country	Country weights	Available sample		Country weights		Unbiased sigma				
		Number	Total reserve	Mean Portfolio	Usable	Used (scaled)	Mean	Median	At country mean	At full sample mean: 245,1
Total	100%	130	31.858	245,1	72%	100%				
Austria	2,3%	7	730	104,3	2,3%	3,3%	6,5%	3,2%	3,0%	1,4%
Belgium	2,8%	9	1.594	177,1	2,8%	3,9%	6,8%	5,5%	5,2%	5,0%
Bulgaria	0,3%									
Czech Republic										
Germany	16,6%	8	300	37,5	1,1%	1,6%	21,6%	19,5%	7,1%	5,5%
Denmark	1,1%	15	2.665	177,6	8,7%	12,1%	21,3%	9,6%	8,9%	6,4%
Spain	8,7%	12	4.025	335,4	9,4%	13,1%	12,0%	11,7%	9,9%	10,0%
Finland	0,9%	7	3.429	489,8	0,6%	0,9%	13,3%	11,5%	8,7%	8,8%
France	9,4%	30	11.678	389,3	23,3%	32,5%	9,0%	4,9%	4,5%	5,5%
Hungary	0,6%	5	19	3,7	0,1%	0,2%	30,9%	14,5%	12,5%	0,2%
Ireland	0,1%	10	1.046	104,6	6,3%	8,8%	8,7%	8,7%	5,8%	2,6%
Iceland	4,1%									
Italy	23,3%	6	559	93,1	1,4%	2,0%	11,2%	8,9%	6,2%	5,2%
Lithuania	0,1%									
Luxembourg	0,2%									
Latvia	0,3%									
Malta	0,1%									
Netherlands	6,3%	21	5.814	276,9	15,6%	21,8%	14,5%	10,9%	9,5%	9,6%
Norway	0,5%									
Poland	2,3%									
Portugal	1,4%									
Romania	0,7%									
Sweden	1,5%									
Slovenia	0,5%									
Slovakia	0,4%									
United Kingdom	15,6%									
		weighted average results:					12,2%	8,4%	7,0%	6,7%

Fire and other damages to property PROP

Summary of results	Gross Premium Risk (including cat. adjustment)		Reserve risk
Level 2 advice Gross	15,0%		25,0%
Level 2 advice net	= Gross x undertaking specific GrossToNet factor		12,0%
QIS5 Gross	10,0%		n.d.
QIS5 Net	= Gross x undertaking specific GrossToNet factor		11,0%
QIS4	10,0%		10,0%
Pan-european analysis	Gross year end loss concept	Gross current estimate loss concept	Reserve risk
Number of undertakings	188	261	189
Total sample premiums	26.346	31.597	
Mean (pink points)	13,8%	13,5%	35,0%
Median (pink points)	12,8%	11,9%	13,4%
Unbiased sigma at sample mean	14,8%	12,9%	13,3%
CAT adjustment	-2,0%	-2,0%	
C-65%	12,8%	11,6%	18,1%
P-95%	12,8%	11,1%	15,0%
Gross result	12,8%	11,1%	15,0%
Net result			9,9%
Country level analysis	Gross year end loss concept	Gross current estimate loss concept	Gross reserve risk
Weighted mean	12,2%	12,6%	15,3%
Weighted median	12,0%	11,8%	12,7%
Weighted unbiased sigma	11,0%	10,3%	14,2%
Maximum use of available data			
Weighted unbiased sigma (country mean)	10,9%		14,2%
Weighted unbiased sigma (sample mean)	10,2%		13,7%
Final results	Gross premium risk		Reserve risk
Combined methodology result (gross)	8,2%		15,5%
Combined methodology result (net)			10,2%

Calibration of the Premium and Reserve Risk Factors in the Standard Formula of Solvency II
Annex 6-2 - Averaging approach and Combined approach results



Country level analysis

Country	Country weights	Premium Risk - country level analysis (maximal usage of available datas)								
		Available sample		Country weights		Unbiased sigma				
		Number	Total premium	Mean Portfolio	Usable	Used (scaled)	Mean	Median	At country mean	At full sample mean: 146,4
Total	100%	222	32.499	146,4	73%	100%				
Austria	2,8%	7	513	73,2	2,8%	3,9%	10,6%	11,7%	10,2%	10,2%
Belgium	2,9%	9	365	40,6	2,9%	4,0%	8,1%	8,5%	7,9%	7,7%
Bulgaria	0,2%									
Czech Republic										
Germany	8,4%	67	9.246	138,0	8,4%	11,4%	10,3%	10,3%	10,0%	10,0%
Denmark	3,6%	10	491	49,1	3,6%	4,9%	13,8%	13,3%	13,1%	13,1%
Spain	1,9%	20	2.708	135,4	1,9%	2,6%	9,2%	7,5%	8,9%	8,8%
Finland	0,9%	10	344	34,4	0,9%	1,2%	13,2%	10,3%	8,2%	7,1%
France	20,8%	9	1.147	127,4	20,8%	28,3%	11,4%	12,4%	9,5%	9,3%
Hungary	0,7%	6	708	118,0	0,7%	0,9%	8,2%	7,7%	7,1%	7,1%
Ireland	0,1%	9	565	62,8	0,1%	0,1%	17,5%	19,4%	16,9%	16,9%
Iceland	4,2%									
Italy	6,8%	25	3.504	140,2	6,8%	9,3%	14,0%	13,5%	13,5%	13,5%
Lithuania	0,5%									
Luxembourg	0,1%									
Latvia	0,4%									
Malta	4,9%	7	30	4,3	4,9%	6,6%	12,0%	12,5%	10,5%	0,3%
Netherlands	1,2%	15	584	38,9	1,2%	1,7%	10,0%	9,5%	10,2%	10,2%
Norway	1,1%									
Poland	0,9%									
Portugal	0,3%									
Romania	3,3%	6	85	14,1	3,3%	4,5%	6,2%	5,9%	5,6%	5,4%
Sweden	0,3%									
Slovenia	0,3%									
Slovakia	18,4%									
United Kingdom	15,1%	22	12.209	554,9	15,1%	20,6%	14,9%	14,0%	14,1%	14,4%
weighted average results:							11,9%	11,9%	10,9%	10,2%

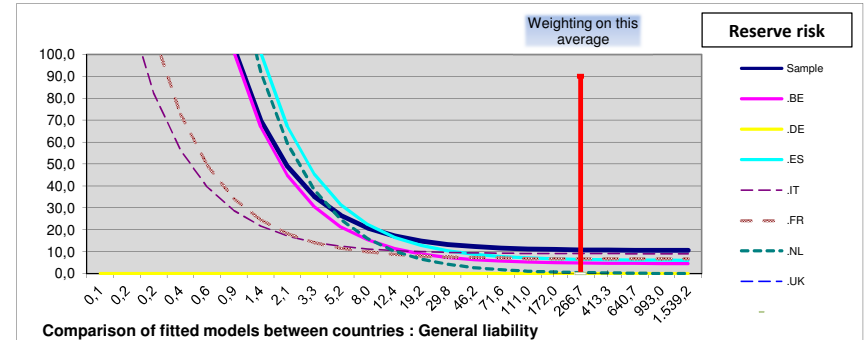
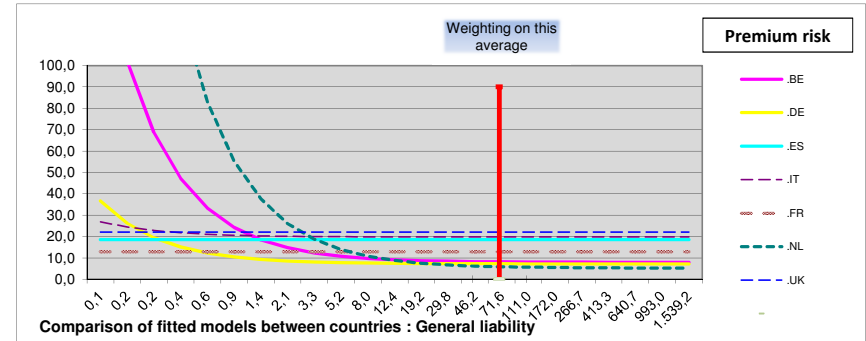
Country	Country weights	Reserve Risk - country level analysis based on the method premium type								
		Available sample		Country weights		Unbiased sigma				
		Number	Total reserve	Mean Portfolio	Usable	Used (scaled)	Mean	Median	At country mean	At full sample mean: 124,3
Total	100%	144	17.894	124,3	64%	100%				
Austria	2,8%	7	553	78,9	2,8%	4,4%	7,5%	7,1%	4,2%	3,7%
Belgium	2,9%	10	207	20,7	2,9%	4,5%	12,9%	9,3%	9,6%	9,6%
Bulgaria	0,2%									
Czech Republic										
Germany	8,4%	8	96	12,1	3,6%	5,6%	15,5%	12,8%	12,2%	11,9%
Denmark	3,6%	21	1.578	75,2	1,9%	3,0%	48,3%	9,5%	7,2%	5,6%
Spain	1,9%	8	84	10,5	0,9%	1,3%	19,1%	14,4%	9,9%	6,3%
Finland	0,9%	10	748	74,8	20,8%	32,3%	9,5%	9,5%	9,7%	9,7%
France	20,8%	7	235	33,5	0,1%	0,1%	17,6%	13,4%	12,2%	11,1%
Hungary	0,7%	29	2.239	77,2	6,8%	10,6%	11,2%	9,9%	9,2%	9,1%
Ireland	0,1%									
Iceland	4,2%									
Italy	6,8%	5	9	1,8	4,9%	7,6%	12,8%	12,4%	11,1%	6,6%
Lithuania	0,5%	12	266	22,2	1,2%	1,9%	13,1%	12,2%	11,3%	11,2%
Luxembourg	0,1%									
Latvia	0,4%									
Malta	4,9%	2	3	1,5	3,3%	5,2%	20,5%	20,5%	27,3%	27,3%
Netherlands	1,2%									
Norway	1,1%									
Poland	0,9%									
Portugal	0,3%									
Romania	3,3%	25	11.876	475,0	15,1%	23,5%	22,5%	18,6%	25,4%	25,4%
Sweden	0,3%									
Slovenia	0,3%									
Slovakia	18,4%									
United Kingdom	15,1%									
weighted average results:							15,3%	12,7%	14,2%	13,7%

General liability

LIAB

Summary of results	Gross Premium Risk (including cat. adjustment)		Reserve risk
Level 2 advice Gross	17,0%		23,5%
Level 2 advice net	= Gross x undertaking specific GrossToNet factor		16,0%
QIS5 Gross	15,0%		n.d.
QIS5 Net	= Gross x undertaking specific GrossToNet factor		11,0%
QIS4	12,5%		15,0%
Pan-european analysis	Gross year end loss concept	Gross current estimate loss concept	Reserve risk
Number of undertakings	179	263	174
Total sample premiums	5.463	13.579	
Mean (pink points)	16,9%	14,1%	39,4%
Median (pink points)	13,7%	11,2%	16,4%
Unbiased sigma at sample mean	17,3%	14,4%	11,1%
CAT adjustment	-1,0%	-1,0%	
C-65%	16,9%	13,9%	25,0%
P-95%	16,5%	13,5%	13,2%
Gross result	16,5%	13,5%	13,2%
Net result			12,6%
Country level analysis	Gross year end loss concept	Gross current estimate loss concept	Gross reserve risk
Weighted mean	15,7%	14,2%	43,0%
Weighted median	15,7%	12,9%	33,0%
Weighted unbiased sigma	15,4%	14,8%	10,0%
Maximum use of available data			
Weighted unbiased sigma (country mean)	14,8%		10,0%
Weighted unbiased sigma (sample mean)	14,8%		11,5%
Final results	Gross premium risk		Reserve risk
Combined methodology result (gross)	13,9%		13,7%
Combined methodology result (net)			13,1%

Calibration of the Premium and Reserve Risk Factors in the Standard Formula of Solvency II
Annex 6-2 - Averaging approach and Combined approach results



Country level analysis

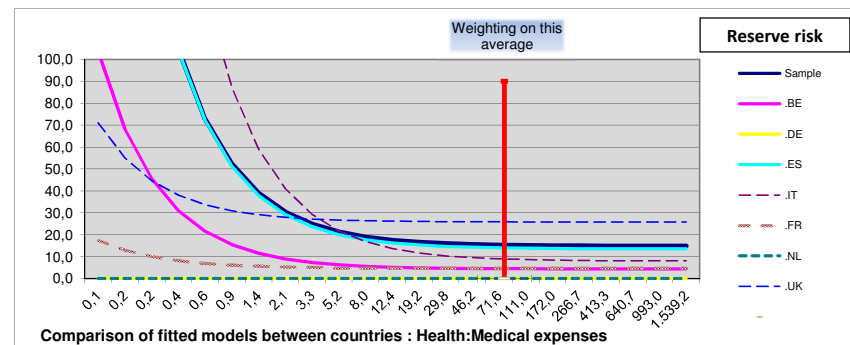
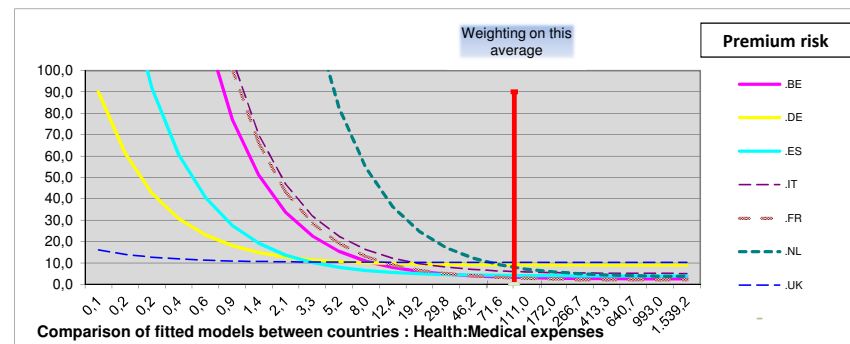
Country	Country weights	Premium Risk - country level analysis (maximal usage of available datas)									
		Available sample		Country weights		Unbiased sigma					
		Number	Total premium	Mean Portfolio	Usable	Used (scaled)	Mean	Median	At country mean	At full sample mean: 50,1	
Total	100%	231	11.572	50,1	88%	100%					
Austria	2,2%	7	181	25,9	2,2%	2,5%	8,9%	8,7%	8,9%	8,9%	
Belgium	2,1%	8	90	11,2	2,1%	2,4%	11,4%	10,1%	9,2%	8,2%	
Bulgaria	0,0%										
Czech Republic											
Germany	24,5%	74	5.896	79,7	24,5%	27,7%	7,5%	6,8%	7,2%	7,3%	
Denmark		10	113	11,3			14,6%	14,1%	14,6%	14,6%	
Spain	5,4%	13	530	40,7	5,4%	6,0%	16,1%	14,9%	18,6%	18,6%	
Finland	0,5%	8	58	7,2	0,5%	0,6%	9,9%	8,7%	5,3%	4,7%	
France	18,6%	8	801	100,2	18,6%	21,0%	11,6%	7,9%	13,0%	13,0%	
Hungary	0,2%	6	48	8,0	0,2%	0,2%	8,1%	7,9%	7,6%	7,6%	
Ireland	0,0%	11	619	56,2	0,0%	0,0%	17,6%	15,3%	13,0%	13,0%	
Iceland	8,0%										
Italy	10,5%	27	1.837	68,0	10,5%	11,9%	18,5%	17,2%	19,8%	19,8%	
Lithuania	0,0%										
Luxembourg	0,8%										
Latvia	0,0%	6	6	1,0	0,0%	0,0%	17,7%	11,7%	16,0%	0,3%	
Malta	0,3%	7	18	2,5	0,3%	0,4%	27,2%	27,7%	26,3%	26,3%	
Netherlands		17	269	15,8			9,8%	8,4%	8,0%	6,1%	
Norway	0,2%										
Poland	0,8%										
Portugal	0,3%										
Romania	0,1%	5	8	1,5	0,1%	0,1%	5,0%	4,8%	4,6%	4,3%	
Sweden	1,2%										
Slovenia	0,2%	6	36	6,0	0,2%	0,2%	13,5%	16,1%	15,0%	15,0%	
Slovakia	0,2%										
United Kingdom	23,9%	18	1.064	59,1	23,9%	27,0%	21,6%	21,2%	22,1%	22,1%	
weighted average results:							14,2%	12,9%	14,8%	14,8%	

Country	Country weights	Reserve Risk - country level analysis based on the method premium type								
		Available sample		Country weights		Unbiased sigma				
		Number	Total reserve	Mean Portfolio	Usable	Used (scaled)	Mean	Median	At country mean	At full sample mean: 170,5
Total		131	22.333	170,5	64%	100%				
Austria		7	325	46,4	2,2%	3,5%	14,1%	7,8%	4,6%	2,5%
Belgium		9	453	50,4	2,1%	3,4%	47,7%	7,9%	6,2%	5,0%
Bulgaria										
Czech Republic										
Germany		9	169	18,8			33,8%	29,5%	12,9%	12,5%
Denmark		16	1.059	66,2	5,4%	8,4%	26,4%	15,8%	8,0%	6,8%
Spain		7	55	7,9	0,5%	0,8%	55,0%	50,1%	6,1%	3,7%
Finland		10	1.043	104,3	18,6%	29,2%	30,0%	9,1%	7,1%	7,0%
France		10	1.917	191,7	0,0%	0,1%	11,7%	10,7%	8,2%	8,7%
Hungary		27	4.537	168,0	10,5%	16,6%	16,4%	9,4%	9,2%	9,2%
Ireland										
Iceland										
Italy		6	10	1,7	0,3%	0,5%	13,6%	11,3%	8,7%	5,2%
Lithuania		11	178	16,2			15,9%	13,1%	7,9%	0,7%
Luxembourg										
Latvia										
Malta										
Netherlands										
Norway										
Poland										
Portugal										
Romania		19	12.586	662,4	23,9%	37,6%	71,1%	70,3%	14,0%	18,8%
Sweden										
Slovenia										
Slovakia										
United Kingdom										
weighted average results:							43,0%	33,0%	10,0%	11,5%

Health:Medical expenses HME

Summary of results	Gross Premium Risk (including cat. adjustment)		Reserve risk
Level 2 advice Gross	5,8%		
Level 2 advice net	= Gross x undertaking specific GrossToNet factor		
QIS5 Gross	4,0%		n.d.
QIS5 Net	= Gross x undertaking specific GrossToNet factor		10,0%
QIS4			
Pan-european analysis	Gross year end loss concept	Gross current estimate loss concept	Reserve risk
Number of undertakings	194	159	99
Total sample premiums	12.441	8.988	
Mean (pink points)	9,6%	11,3%	34,6%
Median (pink points)	7,0%	8,8%	18,8%
Unbiased sigma at sample mean	6,8%	7,5%	15,8%
CAT adjustment			
C-65%	9,2%	9,4%	17,8%
P-95%	7,0%	7,6%	15,8%
Gross result	7,0%	7,6%	15,8%
Net result			9,1%
Country level analysis	Gross year end loss concept	Gross current estimate loss concept	Gross reserve risk
Weighted mean	6,1%	5,9%	17,9%
Weighted median	5,1%	5,3%	11,2%
Weighted unbiased sigma	4,8%	4,7%	9,3%
Maximum use of available data			
Weighted unbiased sigma (country mean)	4,8%		9,3%
Weighted unbiased sigma (sample mean)	4,8%		9,2%
Final results	Gross premium risk		Reserve risk
Combined methodology result (gross)	5,0%		9,2%
Combined methodology result (net)			5,3%

Calibration of the Premium and Reserve Risk Factors in the Standard Formula of Solvency II
Annex 6-2 - Averaging approach and Combined approach results



Country level analysis

Country	Country weights	Premium Risk - country level analysis (maximal usage of available datas)									
		Available sample		Country weights		Unbiased sigma				At full sample mean: 103,6	
		Number	Total premium	Mean Portfolio	Usable	Used (scaled)	Mean	Median	At country mean		
Total	100%	154	15.951	103,6	93%	100%					
Austria	1,3%										
Belgium	1,7%	6	77	12,8	1,7%	1,8%	12,0%	8,4%	7,7%	3,1%	
Bulgaria	0,0%										
Czech Republic	0,1%										
Germany	7,2%	50	740	14,8	7,2%	7,7%	12,1%	9,3%	9,5%	9,1%	
Denmark	1,1%										
Spain	10,8%	12	1.283	106,9	10,8%	11,6%	6,8%	5,1%	4,0%	4,0%	
Finland											
France	50,8%	38	3.303	86,9	50,8%	54,7%	4,4%	3,1%	3,0%	2,9%	
Hungary	0,0%										
Ireland	1,3%										
Iceland											
Italy	4,5%	29	1.906	65,7	4,5%	4,9%	10,0%	8,8%	6,3%	5,8%	
Lithuania											
Luxembourg	0,0%										
Latvia	0,1%										
Malta	0,0%										
Netherlands	7,3%	10	7.998	799,8	7,3%	7,9%	4,0%	4,2%	3,9%	7,3%	
Norway	0,2%										
Poland	0,4%										
Portugal	1,4%										
Romania	0,0%										
Sweden	0,4%										
Slovenia	0,8%										
Slovakia											
United Kingdom	10,5%	9	645	71,7	10,5%	11,3%	10,3%	10,8%	10,2%	10,2%	
weighted average results:							6,3%	5,2%	4,8%	4,8%	

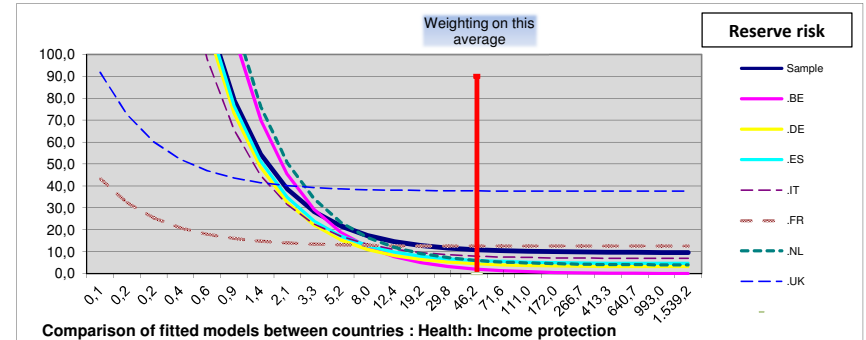
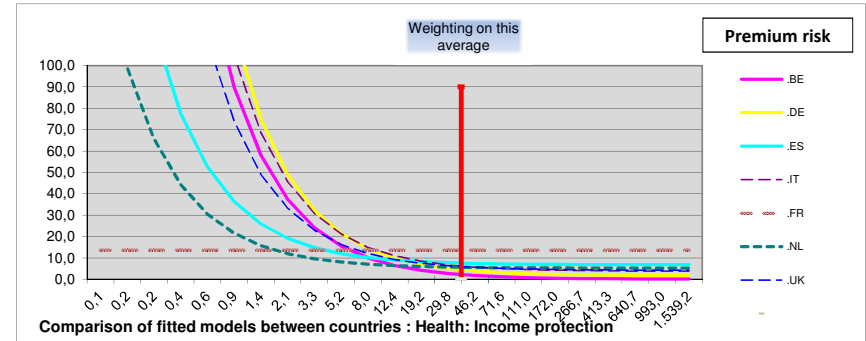
Country	Country weights	Reserve Risk - country level analysis based on the method premium type									
		Available sample		Country weights		Unbiased sigma				At full sample mean: 51,4	
		Number	Total reserve	Mean Portfolio	Usable	Used (scaled)	Mean	Median	At country mean		
Total	100%	58	2.979	51,4	78%	100%					
Belgium	1,7%	6	38	6,4	1,7%	2,2%	7,2%	6,5%	6,0%	4,6%	
Spain	10,8%	9	461	51,2	10,8%	13,7%	19,2%	18,0%	14,2%	14,2%	
France	50,8%	5	46	9,2	50,8%	64,9%	13,6%	6,1%	4,9%	4,8%	
Italy	4,5%	29	2.149	74,1	4,5%	5,8%	25,3%	12,9%	9,0%	9,4%	
United Kingdom	10,5%	9	284	31,6	10,5%	13,4%	35,9%	28,7%	26,0%	25,9%	
weighted average results:							17,9%	11,2%	9,3%	9,2%	

Health: Income protection

HIP

Summary of results	Gross Premium Risk (including cat. adjustment)		Reserve risk
Level 2 advice Gross	8,3%		
Level 2 advice net	= Gross x undertaking specific GrossToNet factor		
QIS5 Gross	8,5%		n.d.
QIS5 Net	= Gross x undertaking specific GrossToNet factor		14,0%
QIS4			
Pan-european analysis			
Number of undertakings	Gross year end loss concept 127	Gross current estimate loss concept 192	Reserve risk 244
Total sample premiums	4.463	7.928	
Mean (pink points)	11,6%	10,5%	27,4%
Median (pink points)	9,8%	7,6%	13,4%
Unbiased sigma at sample mean	9,4%	7,7%	11,1%
<i>CAT adjustment</i>			
C-65%	11,7%	11,1%	18,7%
P-95%	10,0%	8,7%	13,4%
Gross result	10,0%	8,7%	13,4%
Net result			13,4%
Country level analysis			
Weighted mean	Gross year end loss concept 9,9%	Gross current estimate loss concept 8,9%	Gross reserve risk 20,1%
Weighted median	8,3%	7,9%	14,2%
Weighted unbiased sigma	8,9%	7,4%	12,4%
Maximum use of available data			
Weighted unbiased sigma (country mean)	7,9%		12,4%
Weighted unbiased sigma (sample mean)	7,9%		11,5%
Final results			
Combined methodology result (gross)	8,5%		13,9%
Combined methodology result (net)			13,9%

Calibration of the Premium and Reserve Risk Factors in the Standard Formula of Solvency II
Annex 6-2 - Averaging approach and Combined approach results



Country level analysis

Country	Country weights	Premium Risk - country level analysis (maximal usage of available datas)									
		Available sample		Country weights		Unbiased sigma				At full sample mean: 45,0	
		Number	Total premium	Mean Portfolio	Usable	Used (scaled)	Mean	Median	At country mean		
Total	100%	162	7.284	45,0	86%	100%					
Austria	1,5%										
Belgium	1,8%	4	31	7,7	1,8%	2,1%	10,3%	10,0%	10,5%	1,8%	
Bulgaria	0,3%										
Czech Republic	0,4%										
Germany	22,3%	69	2.926	42,4	22,3%	25,9%	6,7%	6,0%	4,0%	3,9%	
Denmark	3,1%	9	155	17,2	3,1%	3,6%	17,8%	16,9%	12,9%	12,5%	
Spain	4,0%	12	333	27,8	4,0%	4,6%	9,6%	8,3%	7,7%	7,4%	
Finland											
France	26,1%	19	699	36,8	26,1%	30,3%	11,6%	10,1%	13,7%	13,7%	
Hungary	0,1%	6	15	2,5	0,1%	0,1%	6,2%	6,1%	6,2%	6,2%	
Ireland	2,4%										
Iceland											
Italy	12,5%	19	1.991	104,8	12,5%	14,5%	8,8%	5,9%	4,5%	5,7%	
Lithuania											
Luxembourg	0,4%										
Latvia	0,0%										
Malta	0,1%										
Netherlands	8,3%	12	396	33,0	8,3%	9,6%	6,3%	6,0%	5,6%	5,5%	
Norway	1,7%										
Poland	0,6%										
Portugal	0,5%										
Romania	0,0%										
Sweden	6,1%										
Slovenia	0,8%	7	68	9,7	0,8%	1,0%	8,8%	6,8%	10,1%	10,1%	
Slovakia											
United Kingdom	7,1%	5	669	133,8	7,1%	8,3%	5,9%	5,8%	4,7%	5,6%	
		weighted average results:					9,0%	7,8%	7,9%	7,9%	

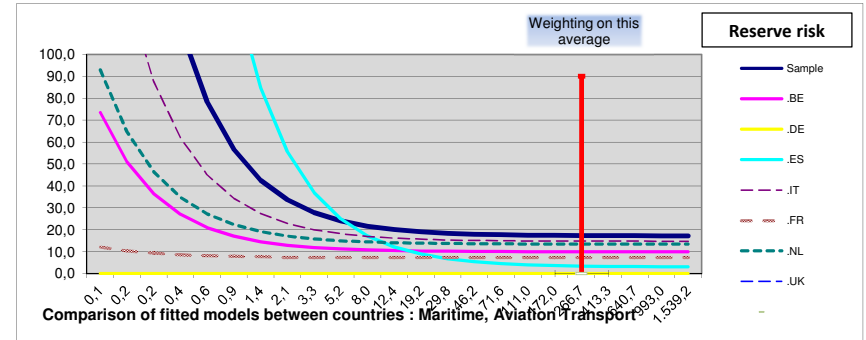
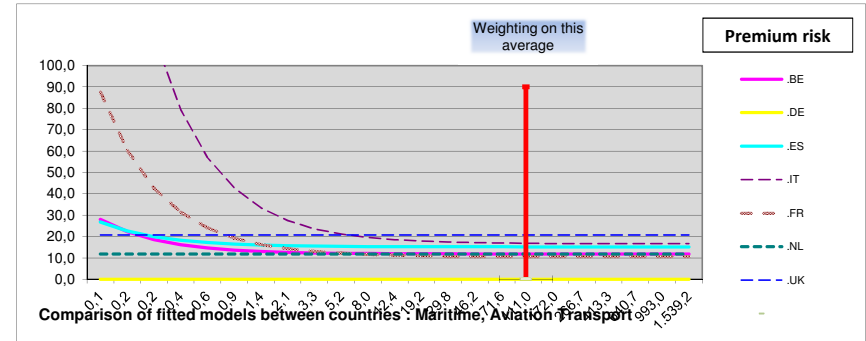
Country	Country weights	Reserve Risk - country level analysis based on the method premium type									
		Available sample		Country weights		Unbiased sigma				At full sample mean: 31,4	
		Number	Total reserve	Mean Portfolio	Usable	Used (scaled)	Mean	Median	At country mean		
Total	100%	190	5.968	31,4	85%	100%					
Austria	1,5%										
Belgium	1,8%	3	38	12,6	1,8%	2,1%	9,1%	7,6%	7,8%	3,1%	
Bulgaria	0,3%										
Czech Republic	0,4%										
Germany	22,3%	114	3.008	26,4	22,3%	26,2%	15,5%	8,9%	5,6%	5,2%	
Denmark	3,1%	7	152	21,7	3,1%	3,7%	28,4%	30,6%	19,6%	19,3%	
Spain	4,0%	12	168	14,0	4,0%	4,7%	46,3%	14,0%	9,3%	6,7%	
Finland											
France	26,1%	16	620	38,8	26,1%	30,7%	13,4%	11,7%	12,7%	12,7%	
Hungary	0,1%										
Ireland	2,4%										
Iceland											
Italy	12,5%	20	796	39,8	12,5%	14,7%	15,2%	10,1%	8,2%	8,6%	
Lithuania											
Luxembourg	0,4%										
Latvia	0,0%										
Malta	0,1%										
Netherlands	8,3%	11	113	10,2	8,3%	9,7%	35,0%	28,6%	13,7%	7,1%	
Norway	1,7%										
Poland	0,6%										
Portugal	0,5%										
Romania	0,0%										
Sweden	6,1%										
Slovenia	0,8%										
Slovakia											
United Kingdom	7,1%	7	1.075	153,5	7,1%	8,4%	35,4%	25,2%	37,6%	37,8%	
		weighted average results:					20,1%	14,2%	12,4%	11,5%	

Maritime, Aviation Transport

MAT

Summary of results	Gross Premium Risk (including cat. adjustment)		Reserve risk
Level 2 advice Gross	23,0%		38,5%
Level 2 advice net	= Gross x undertaking specific GrossToNet factor		17,5%
QIS5 Gross	17,0%		n.d.
QIS5 Net	= Gross x undertaking specific GrossToNet factor		14,0%
QIS4	12,5%		10,0%
Pan-european analysis	Gross year end loss concept	Gross current estimate loss concept	Reserve risk
Number of undertakings	120	129	113
Total sample premiums	7.276	8.032	
Mean (pink points)	21,0%	22,0%	57,0%
Median (pink points)	17,8%	19,4%	20,7%
Unbiased sigma at sample mean	20,4%	20,9%	17,5%
CAT adjustment	-2,0%	-2,0%	
C-65%	19,8%	21,7%	36,3%
P-95%	18,5%	19,1%	18,8%
Gross result	18,5%	19,1%	18,8%
Net result			11,2%
Country level analysis	Gross year end loss concept	Gross current estimate loss concept	Gross reserve risk
Weighted mean	16,9%	18,5%	71,4%
Weighted median	15,5%	15,4%	15,4%
Weighted unbiased sigma	16,8%	17,7%	11,2%
Maximum use of available data			
Weighted unbiased sigma (country mean)	16,9%		11,2%
Weighted unbiased sigma (sample mean)	16,8%		17,3%
Final results	Gross premium risk		Reserve risk
Combined methodology result (gross)	14,9%		18,5%
Combined methodology result (net)			11,0%

Calibration of the Premium and Reserve Risk Factors in the Standard Formula of Solvency II
Annex 6-2 - Averaging approach and Combined approach results



Country level analysis

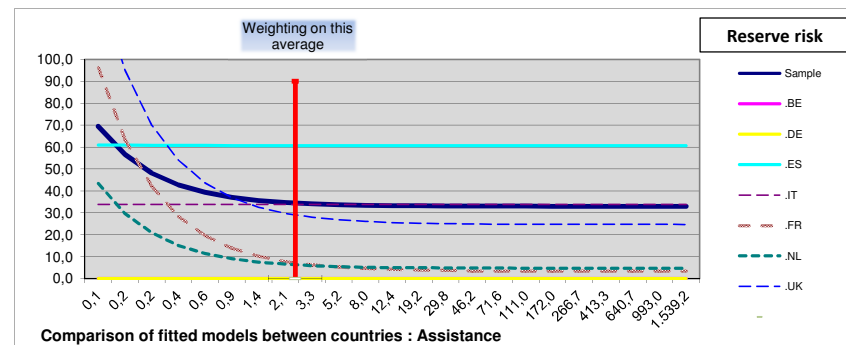
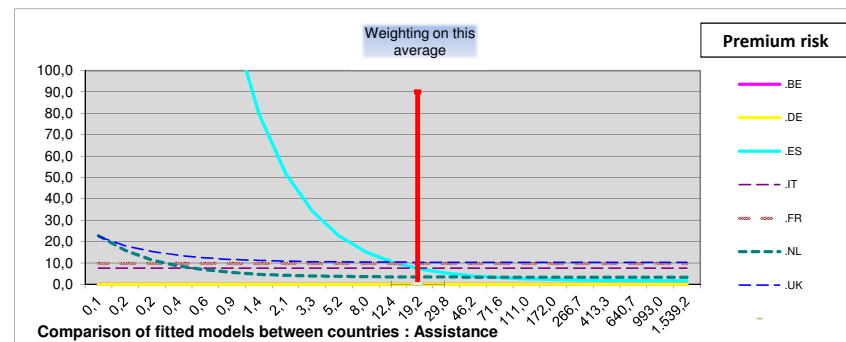
Country	Country weights	Premium Risk - country level analysis (maximal usage of available datas)								
		Available sample		Country weights		Unbiased sigma				
		Number	Total premium	Mean Portfolio	Usable	Used (scaled)	Mean	Median	At country mean	At full sample mean:
Total	100%	80	6.228	77,9	64%	100%				77,9
Austria	0,1%									
Belgium	0,3%	2	29	14,6	0,3%	0,5%	12,2%	12,2%	11,9%	11,8%
Bulgaria	0,1%									
Czech Republic										
Germany	13,6%									
Denmark	1,9%	6	84	14,0	1,9%	3,0%	23,5%	20,1%	24,7%	24,7%
Spain	4,9%	10	394	39,4	4,9%	7,7%	14,9%	14,5%	15,2%	15,2%
Finland	0,9%	8	38	4,7	0,9%	1,4%	14,2%	12,6%	8,7%	8,4%
France	13,6%	3	341	113,8	13,6%	21,2%	11,5%	11,6%	10,8%	10,8%
Hungary	0,1%									
Ireland	0,1%									
Iceland	3,5%									
Italy	3,8%	21	312	14,9	3,8%	5,9%	24,5%	19,8%	18,2%	16,9%
Lithuania	0,0%									
Luxembourg	5,7%									
Latvia	0,0%									
Malta	0,2%	6	5	0,8	0,2%	0,3%	14,1%	12,4%	12,2%	7,9%
Netherlands	7,5%	10	97	9,7	7,5%	11,6%	11,6%	11,8%	11,8%	11,8%
Norway	9,2%									
Poland	0,5%									
Portugal	0,6%									
Romania	0,2%	5	8	1,7	0,2%	0,3%	15,1%	11,2%	16,0%	16,0%
Sweden	2,0%									
Slovenia	0,1%									
Slovakia	0,1%									
United Kingdom	30,9%	9	4.920	546,7	30,9%	48,1%	20,1%	17,4%	20,7%	20,7%
weighted average results:							17,1%	15,4%	16,9%	16,8%

Country	Country weights	Reserve Risk - country level analysis based on the method premium type								
		Available sample		Country weights		Unbiased sigma				
		Number	Total reserve	Mean Portfolio	Usable	Used (scaled)	Mean	Median	At country mean	At full sample mean:
Total	100%	63	10.941	173,7	61%	100%				173,7
Belgium	0,3%	3	1.676	558,8	0,3%	0,5%	11,1%	11,3%	10,0%	10,0%
Denmark	1,9%	6	84	14,0	1,9%	3,0%	23,5%	20,1%	24,7%	24,7%
Spain	4,9%	10	394	39,4	4,9%	7,7%	14,9%	14,5%	15,2%	15,2%
Finland	0,9%	8	38	4,7	0,9%	1,4%	14,2%	12,6%	8,7%	8,4%
France	13,6%	3	341	113,8	13,6%	21,2%	11,5%	11,6%	10,8%	10,8%
Hungary	0,1%									
Ireland	0,1%									
Iceland	3,5%									
Italy	3,8%	21	312	14,9	3,8%	5,9%	24,5%	19,8%	18,2%	16,9%
Lithuania	0,0%									
Luxembourg	5,7%									
Latvia	0,0%									
Malta	0,2%	6	5	0,8	0,2%	0,3%	14,1%	12,4%	12,2%	7,9%
Netherlands	7,5%	10	97	9,7	7,5%	11,6%	11,6%	11,8%	11,8%	11,8%
Norway	9,2%									
Poland	0,5%									
Portugal	0,6%									
Romania	0,2%	5	8	1,7	0,2%	0,3%	15,1%	11,2%	16,0%	16,0%
Sweden	2,0%									
Slovenia	0,1%									
Slovakia	0,1%									
United Kingdom	30,9%	9	4.920	546,7	30,9%	48,1%	20,1%	17,4%	20,7%	20,7%
weighted average results:							71,4%	15,4%	11,2%	17,3%

Assistance AS

Summary of results	Gross Premium Risk (including cat. adjustment)		Reserve risk
Level 2 advice Gross	5,0%		44,5%
Level 2 advice net	= Gross x undertaking specific GrossToNet factor		12,5%
QIS5 Gross	5,0%		n.d.
QIS5 Net	= Gross x undertaking specific GrossToNet factor		11,0%
QIS4	7,5%		10,0%
Pan-european analysis			
Number of undertakings	Gross year end loss concept 53	Gross current estimate loss concept 59	Reserve risk 48
Total sample premiums	427	523	
Mean (pink points)	9,8%	10,0%	57,7%
Median (pink points)	8,5%	7,7%	46,2%
Unbiased sigma at sample mean	9,1%	8,9%	35,0%
<i>CAT adjustment</i>			
C-65%	9,6%	9,7%	36,0%
P-95%	9,1%	9,0%	34,6%
Gross result	9,1%	9,0%	34,6%
Net result			34,6%
Country level analysis			
Weighted mean	8,3%	13,1%	29,7%
Weighted median	6,6%	12,7%	22,1%
Weighted unbiased sigma	8,8%	11,6%	19,1%
Maximum use of available data			
Weighted unbiased sigma (country mean)	8,7%		19,1%
Weighted unbiased sigma (sample mean)	9,2%		19,3%
Final results			
Combined methodology result (gross)	9,3%		19,1%
Combined methodology result (net)			19,1%

Calibration of the Premium and Reserve Risk Factors in the Standard Formula of Solvency II
Annex 6-2 - Averaging approach and Combined approach results



Country level analysis

Country	Country weights	Premium Risk - country level analysis (maximal usage of available datas)								
		Available sample		Country weights		Unbiased sigma				
		Number	Total premium	Mean Portfolio	Usable	Used (scaled)	Mean	Median	At country mean	At full sample mean: 13,2
Total	100%	27	356	13,2	73%	100%				
Austria	0,1%									
Belgium	8,3%									
Bulgaria	0,1%									
Czech Republic	0,7%									
Germany	8,4%									
Denmark	1,5%									
Spain	7,3%	3	118	39,4	7,3%	10,0%	7,2%	4,5%	4,3%	9,8%
Finland										
France	45,1%	3	94	31,3	45,1%	62,1%	8,5%	6,0%	9,8%	9,8%
Hungary	0,0%									
Ireland	2,0%									
Iceland										
Italy	7,5%	13	61	4,7	7,5%	10,3%	7,5%	5,9%	7,5%	7,5%
Lithuania										
Luxembourg	0,2%									
Latvia	0,0%									
Malta	0,0%									
Netherlands	4,3%	4	16	3,9	4,3%	5,9%	4,8%	4,4%	3,8%	3,4%
Norway	0,2%									
Poland	1,0%									
Portugal	2,4%									
Romania	0,1%									
Sweden	2,0%									
Slovenia	0,2%									
Slovakia										
United Kingdom	8,5%	4	67	16,8	8,5%	11,7%	10,5%	10,2%	10,3%	10,3%
		weighted average results:					8,3%	6,2%	8,7%	9,2%

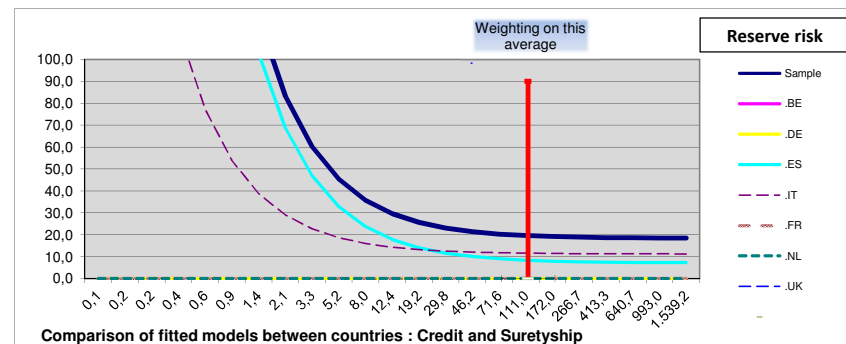
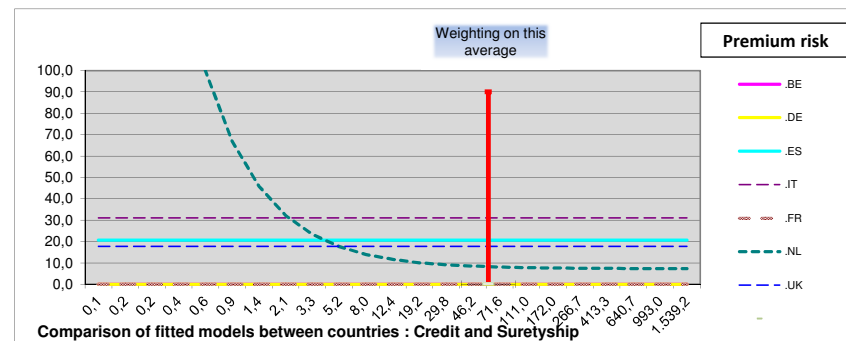
Country	Country weights	Reserve Risk - country level analysis based on the method premium type								
		Available sample		Country weights		Unbiased sigma				
		Number	Total reserve	Mean Portfolio	Usable	Used (scaled)	Mean	Median	At country mean	At full sample mean: 1,7
Total	100%	23	38	1,7	73%	100%				
Austria										
Belgium										
Bulgaria										
Czech Republic										
Germany										
Denmark										
Spain		4	2	0,4	7,3%	10,0%	72,8%	74,5%	60,8%	60,7%
Finland										
France		4	7	1,8	45,1%	62,1%	19,1%	10,0%	8,8%	9,1%
Hungary										
Ireland										
Iceland										
Italy		8	16	2,0	7,5%	10,3%	30,7%	30,9%	33,9%	33,9%
Lithuania										
Luxembourg										
Latvia										
Malta										
Netherlands		4	1	0,4	4,3%	5,9%	59,4%	26,1%	15,3%	7,1%
Norway										
Poland										
Portugal										
Romania										
Sweden										
Slovenia										
Slovakia										
United Kingdom		3	12	4,1	8,5%	11,7%	33,4%	32,1%	27,4%	31,2%
		weighted average results:					29,7%	22,1%	19,1%	19,3%

Credit and Suretyship

CS

Summary of results	Gross Premium Risk (including cat. adjustment)		Reserve risk
Level 2 advice Gross	28,0%		50,5%
Level 2 advice net	= Gross x undertaking specific GrossToNet factor		25,0%
QIS5 Gross	21,5%		n.d.
QIS5 Net	= Gross x undertaking specific GrossToNet factor		19,0%
QIS4	15,0%		15,0%
Pan-european analysis			
Number of undertakings	Gross year end loss concept 52	Gross current estimate loss concept 57	Reserve risk 51
Total sample premiums	2.152	2.501	
Mean (pink points)	31,0%	28,8%	94,1%
Median (pink points)	22,3%	27,2%	28,2%
Unbiased sigma at sample mean	25,6%	30,1%	20,9%
CAT adjustment	-8,0%	-8,0%	
C-65%	29,7%	22,4%	61,3%
P-95%	18,3%	22,4%	25,4%
Gross result	18,3%	22,4%	25,4%
Net result			25,4%
Country level analysis			
Weighted mean	Gross year end loss concept 16,0%	Gross current estimate loss concept 21,4%	Gross reserve risk 38,3%
Weighted median	14,5%	20,7%	27,5%
Weighted unbiased sigma	16,8%	21,6%	18,0%
Maximum use of available data			
Weighted unbiased sigma (country mean)	19,2%		18,0%
Weighted unbiased sigma (sample mean)	19,3%		46,1%
Final results			
Combined methodology result (gross)	11,7%		56,2%
Combined methodology result (net)			56,2%

Calibration of the Premium and Reserve Risk Factors in the Standard Formula of Solvency II
Annex 6-2 - Averaging approach and Combined approach results



Country level analysis

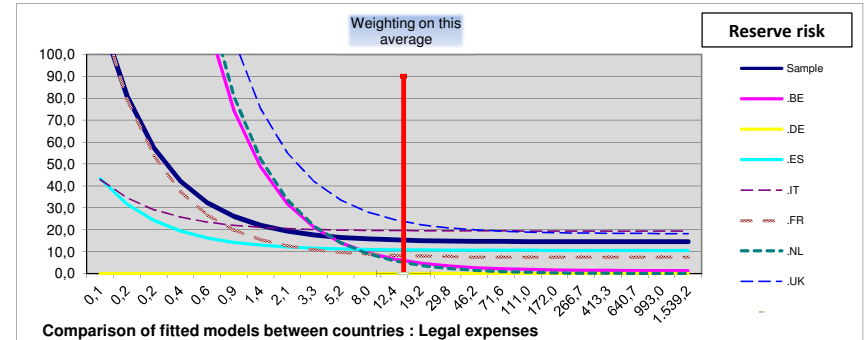
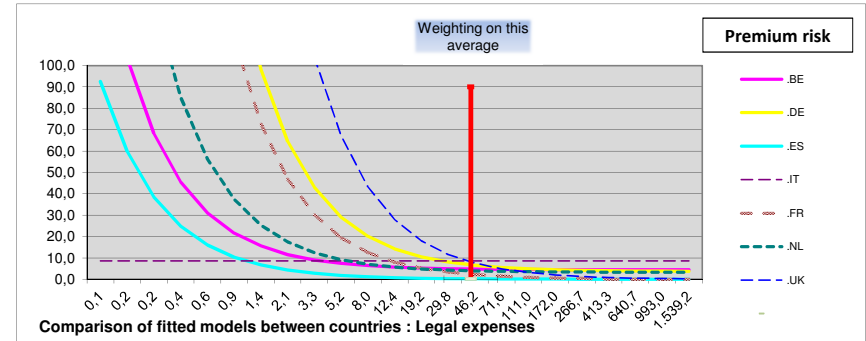
Country	Country weights	Premium Risk - country level analysis (maximal usage of available datas)								
		Available sample			Country weights		Unbiased sigma			
		Number	Total premium	Mean Portfolio	Usable	Used (scaled)	Mean	Median	At country mean	At full sample mean: 65,7
Total	100%	27	1.773	65,7	66%	100%				
Austria	1,5%									
Belgium	2,1%									
Bulgaria	0,1%									
Czech Republic										
Germany	8,9%									
Denmark	0,2%									
Spain	10,0%	3	250	83,3	10,0%	15,0%	21,8%	20,4%	20,7%	20,7%
Finland	0,3%									
France	8,8%									
Hungary	0,1%									
Ireland	0,0%									
Iceland	1,1%									
Italy	10,6%	19	348	18,3	10,6%	15,9%	30,0%	26,0%	31,1%	31,1%
Lithuania	0,2%									
Luxembourg	7,4%									
Latvia	0,0%									
Malta	0,0%									
Netherlands	7,2%	2	533	266,3	7,2%	10,8%	8,6%	8,6%	7,5%	8,1%
Norway	0,1%									
Poland	1,1%									
Portugal	0,3%									
Romania	0,4%									
Sweden	0,3%									
Slovenia	0,3%									
Slovakia	0,1%									
United Kingdom	38,7%	3	642	214,0	38,7%	58,3%	14,1%	14,1%	17,8%	17,8%
		weighted average results:					17,2%	16,3%	19,2%	19,3%

Country	Country weights	Reserve Risk - country level analysis based on the method premium type								
		Available sample			Country weights		Unbiased sigma			
		Number	Total reserve	Mean Portfolio	Usable	Used (scaled)	Mean	Median	At country mean	At full sample mean: 74,9
Total	100%	26	1.948	74,9	59%	100%				
Spain	10,0%	5	169	33,9	10,0%	16,8%	78,7%	17,2%	11,1%	9,0%
Italy	10,6%	19	892	47,0	10,6%	17,8%	15,6%	13,0%	12,1%	11,8%
Netherlands	7,2%	2	887	443,4	38,7%	65,3%	34,1%	34,1%	21,3%	65,0%
		weighted average results:					38,3%	27,5%	18,0%	46,1%

Legal expenses LE

Summary of results	Gross Premium Risk (including cat. adjustment)		Reserve risk
Level 2 advice Gross	8,0%		9,0%
Level 2 advice net	= Gross x undertaking specific GrossToNet factor		9,0%
QIS5 Gross	6,5%		n.d.
QIS5 Net	= Gross x undertaking specific GrossToNet factor		9,0%
QIS4	5,0%		10,0%
Pan-european analysis	Gross year end loss concept	Gross current estimate loss concept	Reserve risk
Number of undertakings	75	107	77
Total sample premiums	843	3.793	
Mean (pink points)	11,4%	10,1%	33,4%
Median (pink points)	9,0%	7,9%	23,2%
Unbiased sigma at sample mean	7,6%	7,3%	15,8%
CAT adjustment			
C-65%	12,4%	11,9%	19,9%
P-95%	7,9%	8,1%	16,0%
Gross result	7,9%	8,1%	16,0%
Net result			16,0%
Country level analysis	Gross year end loss concept	Gross current estimate loss concept	Gross reserve risk
Weighted mean	9,0%	8,7%	19,1%
Weighted median	8,7%	6,9%	15,3%
Weighted unbiased sigma	5,8%	6,3%	12,7%
Maximum use of available data			
Weighted unbiased sigma (country mean)	5,4%		12,7%
Weighted unbiased sigma (sample mean)	6,2%		12,2%
Final results	Gross premium risk		Reserve risk
Combined methodology result (gross)	6,5%		12,3%
Combined methodology result (net)			12,3%

Calibration of the Premium and Reserve Risk Factors in the Standard Formula of Solvency II
Annex 6-2 - Averaging approach and Combined approach results



Country level analysis

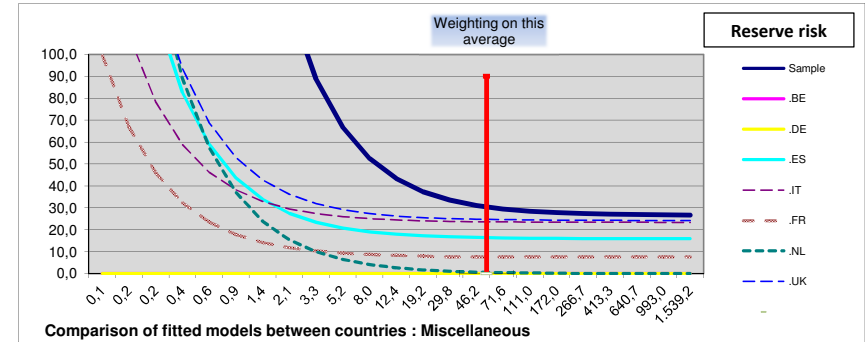
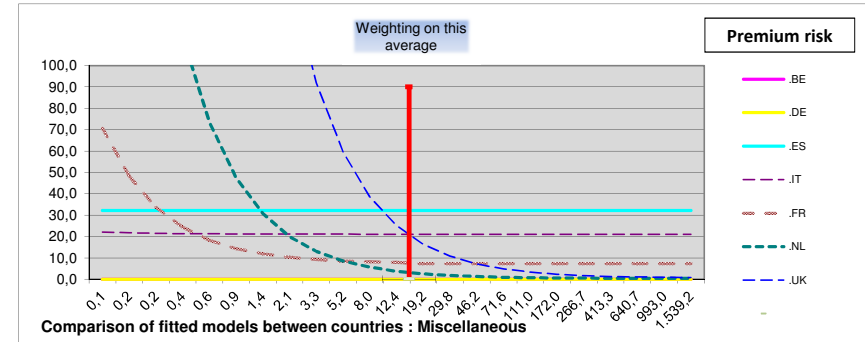
Country	Country weights	Premium Risk - country level analysis (maximal usage of available datas)									
		Available sample		Country weights		Unbiased sigma					
		Number	Total premium	Mean Portfolio	Usable	Used (scaled)	Mean	Median	At country mean	At full sample mean:	
Total	100%	100	3.430	34,3	99%	100%					34,3
Austria	6,0%	7	58	8,3	6,0%	6,1%	5,3%	5,3%	4,1%	2,4%	
Belgium	4,8%	8	49	6,1	4,8%	4,8%	7,4%	6,7%	6,9%	4,9%	
Bulgaria	0,0%										
Czech Republic	0,0%										
Germany	49,9%	31	2.528	81,6	49,9%	50,6%	9,2%	6,7%	5,3%	7,5%	
Denmark	0,0%										
Spain	2,1%	2	2	1,2	2,1%	2,1%	10,9%	10,9%	7,9%	0,3%	
Finland		8	26	3,2			17,9%	19,2%	7,7%	3,4%	
France	13,8%	6	177	29,5	13,8%	14,0%	7,3%	6,5%	3,4%	2,9%	
Hungary	0,1%										
Ireland	0,0%										
Iceland											
Italy	3,9%	24	149	6,2	3,9%	4,0%	7,7%	6,0%	8,6%	8,6%	
Lithuania											
Luxembourg	0,2%										
Latvia	0,0%										
Malta	0,2%										
Netherlands	9,7%	7	164	23,4	9,7%	9,9%	7,6%	6,9%	4,5%	4,1%	
Norway	0,1%										
Poland	0,2%										
Portugal	0,2%										
Romania	0,0%										
Sweden	0,1%										
Slovenia	0,1%										
Slovakia											
United Kingdom	8,5%	7	276	39,4	8,5%	8,6%	14,6%	17,1%	8,8%	10,1%	
		weighted average results:					8,9%	7,5%	5,4%	6,2%	

Country	Country weights	Reserve Risk - country level analysis based on the method premium type									
		Available sample		Country weights		Unbiased sigma					
		Number	Total reserve	Mean Portfolio	Usable	Used (scaled)	Mean	Median	At country mean	At full sample mean:	
Total		65	621	9,5	49%	100%					9,5
Austria		7	70	10,0	6,0%	12,3%	14,0%	7,8%	5,9%	6,1%	
Belgium		9	94	10,4	4,8%	9,8%	21,0%	12,4%	7,6%	8,2%	
Bulgaria											
Czech Republic											
Germany											
Denmark											
Spain		2	4	1,8	2,1%	4,3%	16,4%	16,4%	12,4%	11,0%	
Finland		6	12	2,1			37,6%	37,7%	9,2%	3,4%	
France		6	48	8,0	13,8%	28,2%	11,9%	10,3%	8,9%	8,7%	
Hungary											
Ireland											
Iceland											
Italy		25	90	3,6	3,9%	8,0%	34,2%	25,9%	20,1%	19,7%	
Lithuania											
Luxembourg											
Latvia											
Malta											
Netherlands		3	14	4,6	9,7%	19,9%	17,1%	15,0%	15,6%	7,6%	
Norway											
Poland											
Portugal											
Romania											
Sweden											
Slovenia											
Slovakia											
United Kingdom		7	289	41,3	8,5%	17,4%	29,3%	25,5%	20,1%	26,5%	
		weighted average results:					19,1%	15,3%	12,7%	12,2%	

Miscellaneous MISC

Summary of results	Gross Premium Risk (including cat. adjustment)		Reserve risk
Level 2 advice Gross	15,5%		41,5%
Level 2 advice net	= Gross x undertaking specific GrossToNet factor		20,0%
QIS5 Gross	13,0%		n.d.
QIS5 Net	= Gross x undertaking specific GrossToNet factor		15,0%
QIS4	11,0%		10,0%
Pan-european analysis	Gross year end loss concept	Gross current estimate loss concept	Reserve risk
Number of undertakings	80	90	80
Total sample premiums	1.238	1.271	
Mean (pink points)	28,4%	22,7%	164,0%
Median (pink points)	23,2%	19,8%	49,6%
Unbiased sigma at sample mean	15,4%	17,3%	36,0%
CAT adjustment	-3,5%	-3,5%	
C-65%	29,8%	17,1%	84,8%
P-95%	14,6%	14,2%	44,2%
Gross result	14,6%		44,2%
Net result		14,2%	44,2%
Country level analysis	Gross year end loss concept	Gross current estimate loss concept	Gross reserve risk
Weighted mean	16,7%	13,9%	32,9%
Weighted median	12,8%	13,0%	23,6%
Weighted unbiased sigma	11,7%	10,2%	19,5%
Maximum use of available data			
Weighted unbiased sigma (country mean)	9,9%		19,5%
Weighted unbiased sigma (sample mean)	14,0%		18,1%
Final results	Gross premium risk		Reserve risk
Combined methodology result (gross)	12,8%		22,3%
Combined methodology result (net)			22,3%

Calibration of the Premium and Reserve Risk Factors in the Standard Formula of Solvency II
Annex 6-2 - Averaging approach and Combined approach results



Country level analysis

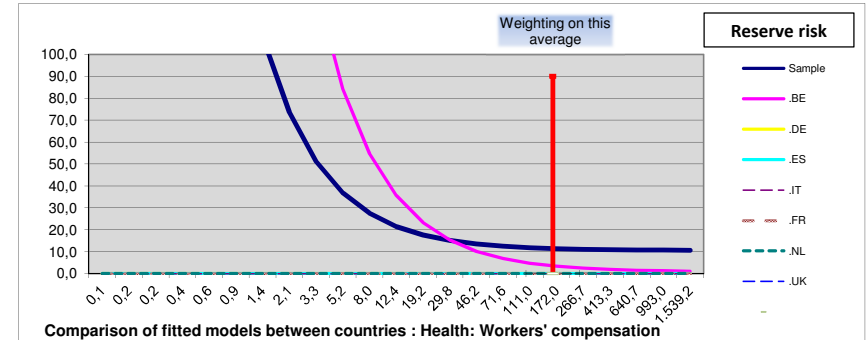
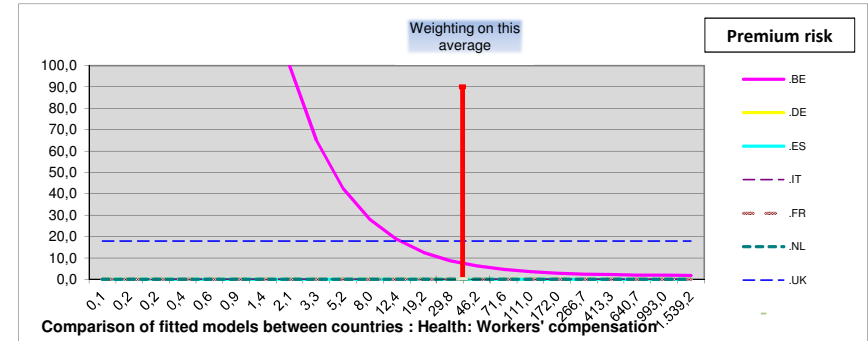
Country	Country weights	Premium Risk - country level analysis (maximal usage of available datas)								
		Available sample		Country weights		Unbiased sigma				
		Number	Total premium	Mean Portfolio	Usable	Used (scaled)	Mean	Median	At country mean	At full sample mean: 19,1
Total	100%	61	1.162	19,1	77%	100%				
Austria	0,8%									
Belgium	0,7%									
Bulgaria	0,0%									
Czech Republic	0,1%									
Germany	14,6%									
Denmark	1,4%									
Spain	5,1%	9	68	7,5	5,1%	6,5%	32,7%	31,6%	32,2%	32,2%
Finland		7	30	4,3			18,8%	11,8%	20,1%	20,1%
France	22,2%	3	165	55,1	22,2%	28,7%	9,8%	7,9%	7,5%	7,7%
Hungary	0,1%									
Ireland	5,8%	7	337	48,2	5,8%	7,5%	4,4%	5,0%	5,7%	5,7%
Iceland										
Italy	4,5%	23	174	7,6	4,5%	5,8%	22,3%	24,1%	21,1%	21,1%
Lithuania										
Luxembourg	1,1%									
Latvia	0,0%									
Malta	0,4%									
Netherlands	2,7%	4	70	17,6	2,7%	3,5%	9,1%	7,7%	2,7%	2,6%
Norway	1,4%									
Poland	0,8%									
Portugal	0,2%									
Romania	0,2%									
Sweden	0,7%									
Slovenia	0,1%									
Slovakia										
United Kingdom	37,1%	8	318	39,8	37,1%	48,0%	17,6%	11,5%	8,2%	16,5%
		weighted average results:					15,4%	11,9%	9,9%	14,0%

Country	Country weights	Reserve Risk - country level analysis based on the method premium type								
		Available sample		Country weights		Unbiased sigma				
		Number	Total reserve	Mean Portfolio	Usable	Used (scaled)	Mean	Median	At country mean	At full sample mean: 36,0
Total	100%	48	1.730	36,0	72%	100%				
Spain	5,1%	13	120	9,2	5,1%	7,1%	90,5%	33,5%	18,6%	16,6%
France	22,2%	2	94	47,2	22,2%	31,0%	10,6%	10,6%	7,8%	7,9%
Italy	4,5%	23	1.423	61,9	4,5%	6,3%	96,7%	34,9%	23,6%	23,8%
Netherlands	2,7%	3	6	1,9	2,7%	3,8%	35,5%	40,7%	17,1%	0,9%
United Kingdom	37,1%	7	87	12,4	37,1%	51,9%	30,3%	27,4%	26,3%	25,0%
		weighted average results:					32,9%	23,6%	19,5%	18,1%

Health: Workers' compensation HWC

Summary of results	Gross Premium Risk (including cat. adjustment)		Reserve risk
Level 2 advice Gross	5,5%		
Level 2 advice net	= Gross x undertaking specific GrossToNet factor		12,0%
QIS5 Gross	5,5%		n.d.
QIS5 Net	= Gross x undertaking specific GrossToNet factor		11,0%
QIS4			15,0%
Pan-european analysis			
Number of undertakings	Gross year end loss concept 39	Gross current estimate loss concept 41	Reserve risk 41
Total sample premiums	1.402	1.463	
Mean (pink points)	12,3%	19,5%	25,1%
Median (pink points)	10,5%	18,4%	15,5%
Unbiased sigma at sample mean	11,4%	21,9%	12,1%
<i>CAT adjustment</i>			
C-65%	14,9%	24,8%	30,9%
P-95%	11,8%	22,2%	15,3%
Gross result	11,8%	22,2%	15,3%
Net result			13,8%
Country level analysis			
Weighted mean	11,4%	16,4%	19,1%
Weighted median	10,6%	15,8%	12,8%
Weighted unbiased sigma	9,3%	14,1%	9,9%
Maximum use of available data			
Weighted unbiased sigma (country mean)	9,3%		9,9%
Weighted unbiased sigma (sample mean)	7,8%		10,0%
Final results			
Combined methodology result (gross)	8,0%		12,7%
Combined methodology result (net)			11,4%

Calibration of the Premium and Reserve Risk Factors in the Standard Formula of Solvency II
Annex 6-2 - Averaging approach and Combined approach results



Country level analysis

Country	Country weights	Premium Risk - country level analysis (maximal usage of available datas)								
		Available sample			Country weights		Unbiased sigma			
		Number	Total premium	Mean Portfolio	Usable	Used (scaled)	Mean	Median	At country mean	At full sample mean:
Total	100%	29	1.324	45,7	83%	100%				45,7
Austria										
Belgium	28,8%	4	105	26,2	28,8%	34,7%	13,3%	11,7%	9,7%	6,3%
Bulgaria										
Czech Republic										
Germany	4,6%									
Denmark	15,0%	5	83	16,7	15,0%	18,1%	14,7%	13,6%	10,7%	9,2%
Spain										
Finland	13,0%	4	158	39,5	13,0%	15,6%	5,2%	5,2%	4,8%	4,8%
France	5,1%									
Hungary										
Ireland										
Iceland	0,9%									
Italy										
Lithuania										
Luxembourg	1,5%									
Latvia										
Malta										
Netherlands	1,2%									
Norway	4,8%	7	217	31,0	4,8%	5,8%	9,3%	10,3%	9,8%	9,8%
Poland										
Portugal	13,5%	6	245	40,9	13,5%	16,2%	7,1%	7,2%	6,0%	5,9%
Romania										
Sweden	3,6%									
Slovenia										
Slovakia										
United Kingdom	8,0%	3	516	171,9	8,0%	9,6%	16,9%	16,0%	17,8%	17,8%
		weighted average results:					11,4%	10,6%	9,3%	7,8%

Country	Country weights	Reserve Risk - country level analysis based on the method premium type								
		Available sample			Country weights		Unbiased sigma			
		Number	Total reserve	Mean Portfolio	Usable	Used (scaled)	Mean	Median	At country mean	At full sample mean:
Total	100%	27	2.849	105,5	70%	100%				105,5
Austria										
Belgium										
Bulgaria										
Czech Republic										
Germany										
Denmark										
Spain										
Finland										
France										
Hungary										
Ireland										
Iceland										
Italy										
Lithuania										
Luxembourg										
Latvia										
Malta										
Netherlands										
Norway										
Poland										
Portugal										
Romania										
Sweden										
Slovenia										
Slovakia										
United Kingdom										
		weighted average results:					19,1%	12,8%	9,9%	10,0%