

Solvency 2 & Reinsurance

APREF

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SCOR

Agenda



1	Solvency 2 - Global overview
2	Fifth quantitative impact study (QIS5)
3	QIS5 - Practical example
4	Conclusions

Solvency 2 – Global Overview Background



- ❑ European insurer solvency regime was put in place in the 1970's.
- ❑ Solvency 1 shortcomings:
 - Premium-based methods hardly reflect the true risk
 - Factor-based methods are unable to adequately take into account complex forms of risk transfer
 - Solvency margin independent of segmentation of business and investment strategy
 - Margin for prudence in the liability valuation is not prescribed and varies between companies
 - Dependencies between assets and liabilities or between lines of business are not taken into account

➔ Solvency 1 is now outdated and not appropriate for the current market complexity

Solvency 2 – Global Overview

Context of Solvency 2



- ❑ European project initiated and driven by the EU Commission and developed in close cooperation with national supervisors and international professional bodies
- ❑ Level 1: approval of the directive in April 2009. Implementation (level 2) still on-going discussion (amended with the Omnibus 2 directive)
- ❑ Objectives:
 - Consumers protection
 - Risk-based, market consistent approach to solvency capital assessment
 - Encourage companies to understand and manage their risks
 - Consistent and comparable regulatory system across Europe
 - Enhanced transparency and public disclosure

Solvency 2 – Global Overview

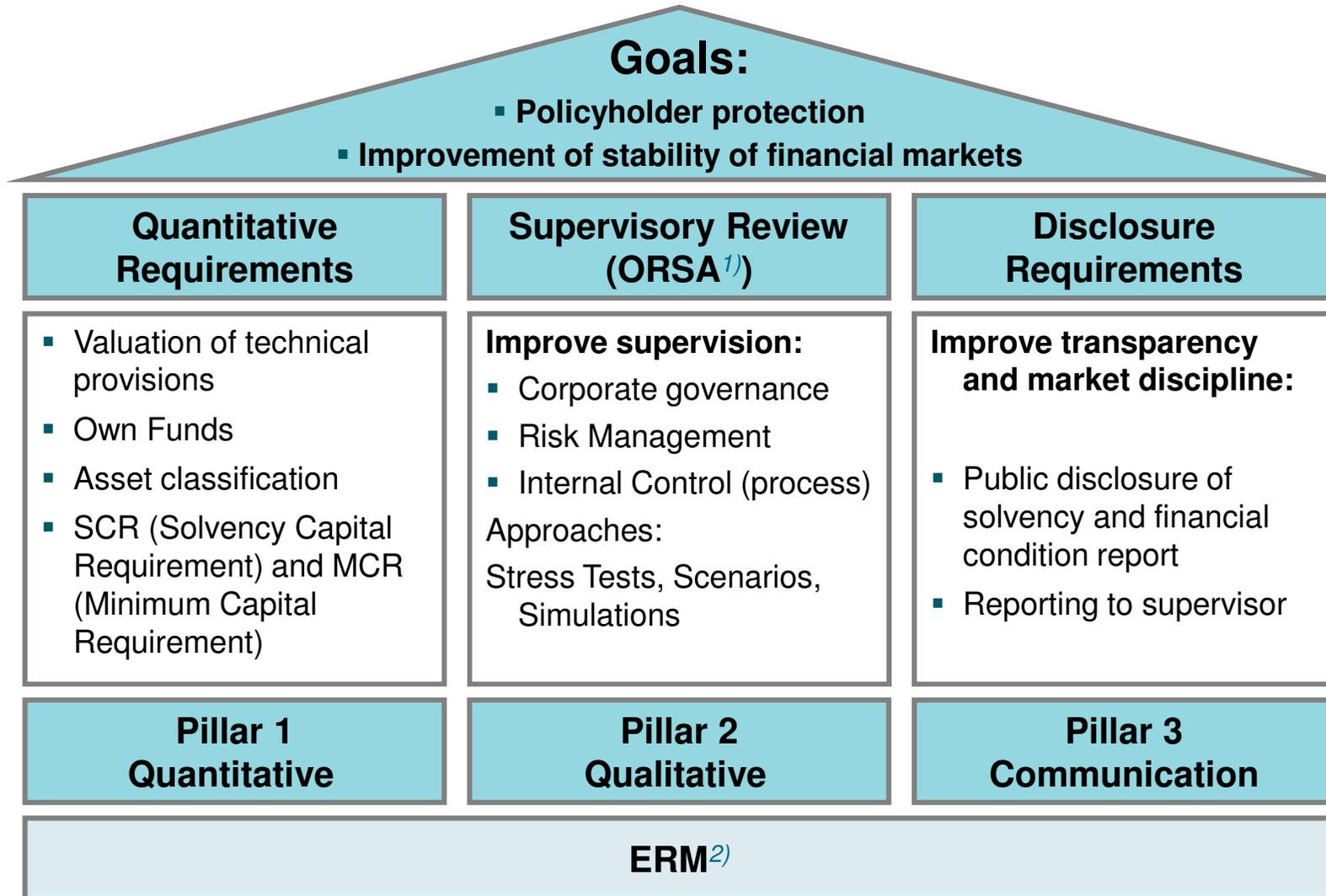
New features



- ❑ Principles-based rather than rules-based (Solvency 1)
- ❑ Economic and market-consistent valuation of the risks to which the company is exposed
- ❑ Solvency assessment linked to the risk-profile of the company (company rewarded for good risk management and controls)
- ❑ Consideration of diversification effects
- ❑ Choice of calculation methods
- ❑ Principle of proportionality

Solvency 2 – Global Overview

Three pillars view



Solvency 2 – Global Overview

Lamfalussy process



- Process for producing EU financial services legislation that can cope with rapidly changing technical standards, a 4-level approach:

	What is it?	What does it include?	Who develops?	Who decides?
Level 1	Solvency 2 directive	Overall Framework principles	European Commission	European Parliament, European Council
Level 2	Implementing measures	Detailed implementing measures	European Commission	EIOPC ¹⁾ EIOPA ²⁾
Level 3	Supervisory standards	Consistent guidelines and common standards	EIOPA ²⁾	EIOPA ²⁾
Level 4	Enforcement	Monitoring compliance and enforcement	European Commission	European Commission

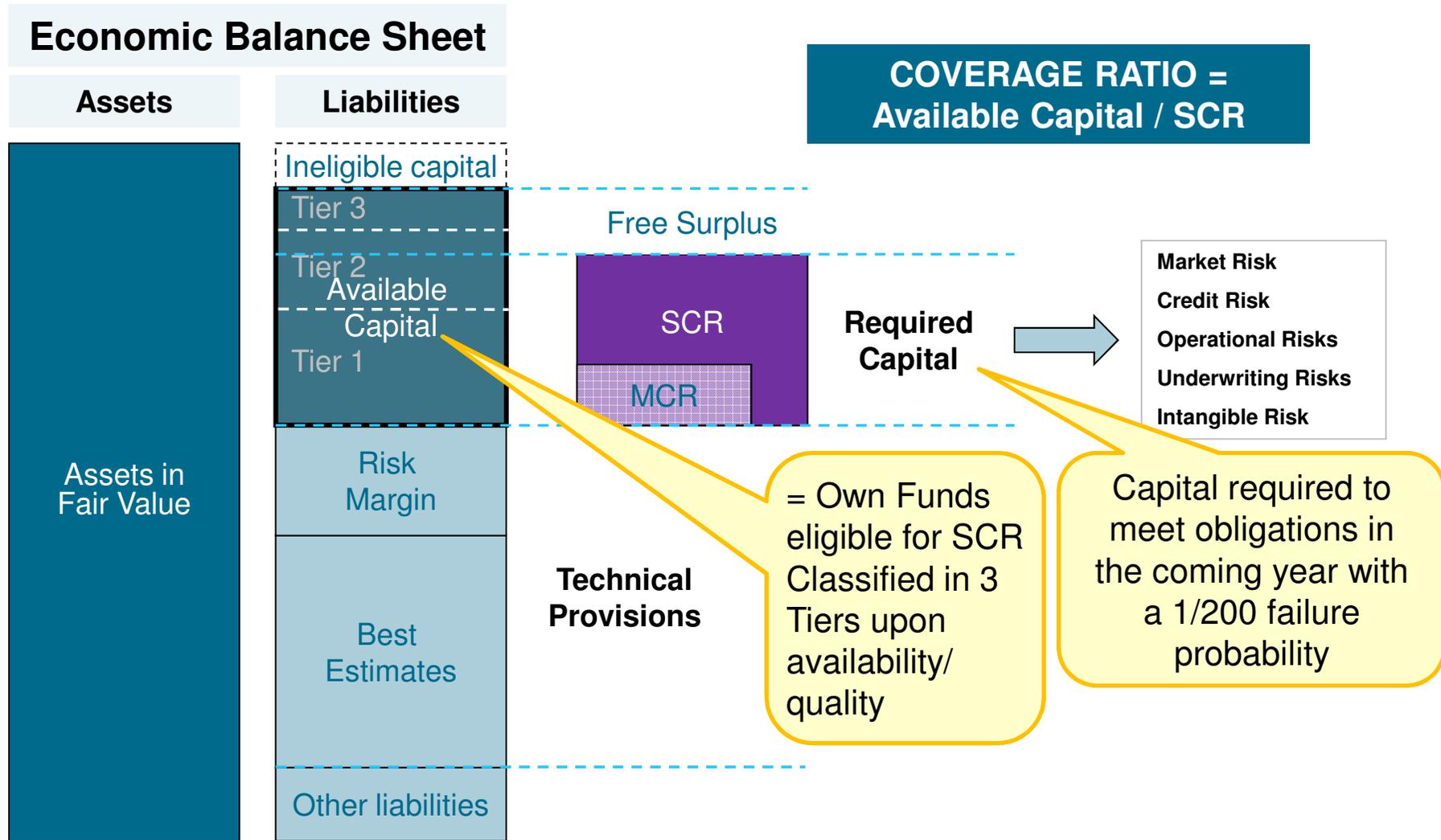
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2	Fifth quantitative impact study (QIS5)
3	QIS5 - Practical example
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Solvency 2 – Global Overview

A "full fair value" quantitative approach





$$SCR = BSCR - Adj + SCR_{OP}$$

Basic SCR

Aggregate risk capital for:

- Life
- Non-life
- Health
- Market
- Counterparty
- Intangibles

Adj

Adjustment for the risk absorbing effect of:

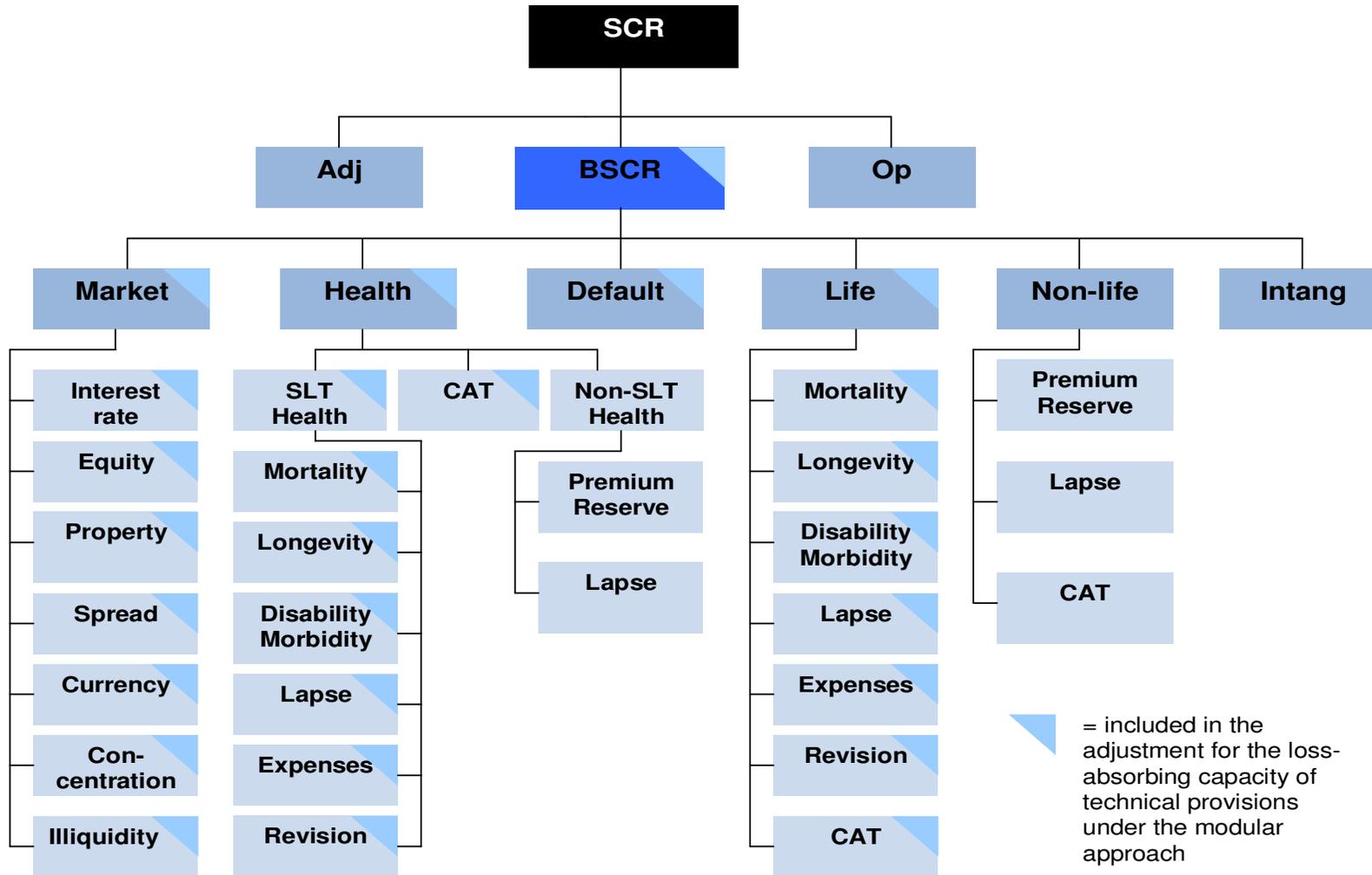
- Future profit sharing
- Deferred taxes

SCR_{OP}

Capital charge for operational risk (which does not benefit explicitly from diversification)

Solvency 2 – Global Overview

Basic SCR risk matrix



Agenda



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3	QIS5 - Practical example
4	Conclusions



QIS5 – Practical example Cedent company

- ❑ **Non-Life** Cedent Company
- ❑ 4 years of business
- ❑ **2 LoBs**: Motor TPL and Fire
- ❑ Split of premiums and reserves (SII best estimate) as of end 2009

	Motor	Fire	Total
Premiums	43,738,918	35,655,119	79,394,037
<i>Premiums %</i>	<i>55%</i>	<i>45%</i>	<i>100%</i>
Reserves	88,198,435	36,055,739	124,254,174
<i>Reserves %</i>	<i>71%</i>	<i>29%</i>	<i>100%</i>

- ❑ Portfolio **geographical** split

	Reserves	Premiums
Zone 1	68%	27%
Zone 2	9%	33%
Zone 3	23%	40%



QIS5 – Practical example

Reinsurance cases

- ❑ Aim of the example is to provide vision of the impact of a cedent's reinsurance strategy on its solvency capital position using Solvency II factors.
- ❑ Reinsurance strategy against pure investment strategy -> the weight of the Balance Sheet, as well as the available capital as of end 2009 will remain constant.
- ❑ Three types of reinsurance strategy with variants:
 - **Non Proportional** Reinsurance:
 - high vs low layers,
 - **Proportional** Reinsurance
 - **Loss Portfolio** Transfer
- ❑ Sensitivity test to the geographical diversifications of the cedent
- ❑ Diversification between lines of business tested (multi-lob cedent against monoliner)



QIS5 – Practical example

Case 0: With No Reinsurance Strategy

□ Solvency 2 Balance Sheet as of end 2009

No reinsurance			
Assets		Liabilities	
Investments	193,147,577	Available Capital	28,893,403
<i>Lands and buildings</i>	7,302,297		
<i>Equities</i>	22,833,302		
<i>Fixed Income</i>	163,011,978	Other Liabilities	40,000,000
Reinsurance	0	Insurance Liabilities	124,254,174
Total	193,147,577	Total	193,147,577

amounts in €

- No Reinsurance reserves on the balance sheet
- Judgmental investment split between bonds, equities and property

	With Geo div	Without Geo div
SCR	31,387,060	35,002,063
Coverage Ratio	92%	83%

QIS5 - Practical Example

Case 0: With No Reinsurance Strategy / SCR Calculation



- ❑ No capital required for counterparty risk
- ❑ Assumed and reinsurance reserves are sensitive to interest rate risk.
- ❑ Impact of geographical diversification on SCR Uw -> significant penalization in terms of required capital
- ❑ SCR Uw Non Life has a significant weight in the global SCR

	With Geo div	Without Geo div
SCR UW Non Life	21,430,582	25,227,739
SCR Default	0	0
Mkt interest rate assets UP	9,112,160	9,112,160
Mkt Interest rate liabilities UP	-4,506,843	-4,506,843
Mkt interest rate assets Down	-7,722,169	-7,722,169
Mkt Interest rate liabilities Down	4,111,952	4,111,952
Mkt equity	7,383,718	7,383,718
Mkt Real Estate	1,825,574	1,825,574
Mkt Spread	6,455,066	6,455,066
SCR Market	14,974,175	14,974,175
BSCR	29,050,789	32,396,713
SCR Operational	2,336,270	2,605,350
SCR	31,387,060	35,002,063
Coverage Ratio	92%	83%

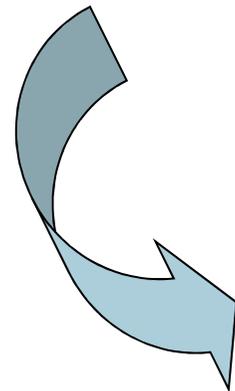
QIS5 - Practical Example

Case 0: With No Reinsurance Strategy / SCR Uw Non Life



- Geographical split of premiums and reserves in each line of business

	Reserves	Premiums
Zone 1	68%	27%
Zone 2	9%	33%
Zone 3	23%	40%



	Motor		Fire	
	Reserve	Premium	Reserve	Premium
Zone 1	60,413,798	11,875,076	24,697,310	9,680,332
Zone 2	7,521,151	14,560,198	3,074,665	11,869,192
Zone 3	20,263,486	17,303,644	8,283,763	14,105,596
	88,198,435	43,738,918	36,055,739	35,655,119



QIS5 - Practical Example

Case 0: With No Reinsurance Strategy / SCR Calculation

- For each job, combination of premiums and reserves net of reinsurance to derive “premiums and reserves” volume (geographical diversification) and standard deviation (premium and reserve 50% correlation)

$$V_{job} = (V_{job}^{prem} + V_{job}^{res}) \cdot (0.75 + 0.25 \cdot DIV_{job})$$

where

$$DIV_{job} = \frac{\sum_j (V_{(prem,j,job)} + V_{(res,j,job)})^2}{\left(\sum_j (V_{(prem,j,job)} + V_{(res,j,job)})\right)^2}$$

$$\sigma_{(job)} = \frac{\sqrt{(\sigma_{(prem,job)} V_{(prem,job)})^2 + 2\alpha \sigma_{(prem,job)} \sigma_{(res,job)} V_{(prem,job)} V_{(res,job)} + (\sigma_{(res,job)} V_{(res,job)})^2}}{V_{(prem,job)} + V_{(res,job)}}$$

	Without Geo Diversification		With Geo Diversification	
	Fire	Motor	Fire	Motor
Std. Premiums	10%	10%	10%	10%
Corr. Premium/Reserves	50%	50%	50%	50%
Std. Reserves	11.0%	9.5%	11.0%	9.5%
Ceded Premium	0	0	0	0
Premium Volume (net of reinsurance)	35,655,119	43,738,918	35,655,119	43,738,918
Reserve Volume (net of reinsurance)	36,055,739	88,198,435	36,055,739	88,198,435
Geo Diversification	0%	0%	63%	63%
Std Premium and Reserves	9.1%	8.5%	9.1%	8.5%
Premiums and Reserves Volume	71,710,858	131,937,353	60,429,364	112,452,900



QIS5 - Practical Example

Case 0: With No Reinsurance Strategy / SCR Calculation

- Combination of lobs volumes and standard deviation applying the corresponding correlation between motor and fire

			Motor Liability	Fire
			100%	25%
Motor Liability			100%	25%
Fire			25%	100%

	Without Geo Diversification		With Geo Diversification	
	No Reinsurance		No Reinsurance	
	Sigma lob	V lob	Sigma lob	V lob
Fire	9.10%	71,710,858	9.10%	60,429,364
Motor Liability	8.51%	131,937,353	8.51%	112,452,900
Total Volume	203,648,212		172,882,264	
Total Std	7.03%		7.04%	
SCR UW Non Life	25,227,739		21,430,582	

QIS5 - Practical Example

Case 0: With No Reinsurance Strategy / Summary of Results



- Summary of results: the coverage ratio below 100% corresponds to a B to BBB rating for the cedant

	With Geo div	Without Geo div
SCR UW Non Life	21,430,582	25,227,739
SCR Default	0	0
Mkt interest rate assets UP	9,112,160	9,112,160
Mkt Interest rate liabilities UP	-4,506,843	-4,506,843
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Coverage Ratio	92%	83%

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Investments	193,147,577	Available Capital	28,893,403
<i>Lands and buildings</i>	7,302,297		
<i>Equities</i>	22,833,302		
<i>Fixed Income</i>	163,011,978	Other Liabilities	40,000,000
Reinsurance	0	Insurance Liabilities	124,254,174
Total	193,147,577	Total	193,147,577

amounts in €



QIS5 - Practical Example

Case 1: With Non Prop (high layers) Reinsurance Strategy

- ❑ 4 years of **Non Proportional** Reinsurance strategy
 - Unlimited XS 1250 k€ for Motor Liability
 - Unlimited XS 200 k€ for Fire

- ❑ Solvency II Balance Sheet as of end 2009: Reinsurance Reserve appearing, rebalancing the asset side, investments adjusted to keep the weight of the balance sheet constant

NP Reinsurance			
Assets		Liabilities	
Investments	185,513,625	Available Capital	28,893,403
<i>Lands and buildings</i>	7,013,682		
<i>Equities</i>	21,930,841		
<i>Fixed Income</i>	156,569,103	Other Liabilities	40,000,000
Reinsurance	7,633,952	Insurance Liabilities	124,254,174
Total	193,147,577	Total	193,147,577

↙

	With Geo div	Without Geo div
SCR	28,055,862	31,345,831
Coverage Ratio	103%	92%

QIS5 - Practical Example

Case 1: With Non Prop (high layers) Reinsurance Strategy



- Capital required for reinsurance counterparty risk (SCR Default)

- Market Risk reduced due to replacement of investments by reinsurance reserves

	With Geo div	Without Geo div
SCR Non Life	18,186,435	21,558,598
SCR Default	449,011	474,097
Mkt interest rate assets UP	8,752,011	8,752,011
Mkt Interest rate liabilities UP	-4,229,950	-4,229,950
Mkt interest rate assets Down	-7,416,959	-7,416,959
Mkt Interest rate liabilities Down	3,859,321	3,859,321
Mkt equity	7,091,884	7,091,884
Mkt Real Estate	1,753,420	1,753,420
Mkt Spread	6,199,937	6,199,937
SCR Market	14,413,018	14,413,018
BSCR	26,098,829	29,012,629
SCR Operational	2,098,873	2,333,201
SCR	28,197,702	31,345,831
Coverage Ratio	102%	92%

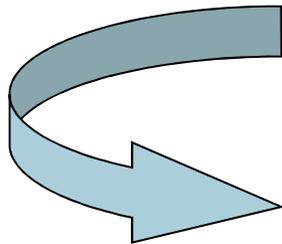
QIS5 - Practical Example

Case 1: With Non Prop (high layers) Reinsurance Strategy



- Geographical split of premiums and reserves in each line of business

	Reserves	Premiums
Zone 1	68%	27%
Zone 2	9%	33%
Zone 3	23%	40%



	Motor		Fire	
	Reserve Vol.	Premium Vol.	Reserve Vol.	Premium Vol.
Zone 1	55,786,111	9,773,615	24,095,925	9,511,227
Zone 2	6,945,032	11,983,567	2,999,796	11,661,849
Zone 3	18,711,306	14,241,522	8,082,052	13,859,185
	81,442,449	35,998,704	35,177,773	35,032,260

QIS5 - Practical Example

Case 1: With Non Prop (high layers) Reinsurance Strategy / SCR Uw Non Life



- For each lob, combination of premiums and reserves net of reinsurance to derive “premiums and reserves” volume (geographical diversification) and standard deviation (premium and reserve 50% correlation)

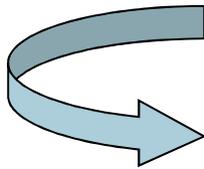
	Without Geo Diversification		With Geo Diversification	
	Fire	Motor	Fire	Motor
Std. Premiums	8.54%	7.33%	8.54%	7.33%
Corr. Premium/Reserves	50%	50%	50%	50%
Std. Reserves	11.0%	9.5%	11.0%	9.5%
Ceded Premium	622,859	7,740,214	6,417,922	7,740,214
Premium Volume (net of reinsurance)	35,032,260	35,998,704	35,032,260	35,998,704
Reserve Volume (net of reinsurance)	35,177,773	81,442,449	35,177,773	81,442,449
Geo Diversification	0%	0%	63%	63%
Std Premium and Reserves	8.5%	8,0%	8.5%	8,0%
Premiums and Reserves Volume	70,210,033	117,441,153	59,158,812	99,127,212

QIS5 - Practical Example



Case 1: With Non Prop (high layers) Reinsurance Strategy / SCR Uw Non Life

- Combination of lobs volumes and standard deviation applying the corresponding correlation between motor and fire



	Motor Liability	Fire
Motor Liability	100%	25%
Fire	25%	100%

	No Geo Diversification		With Geo Diversification	
	NP Reinsurance		NP Reinsurance	
	Sigma lob	V lob	Sigma lob	V lob
Fire	8,5%	70,210,033	8,5%	59,158,812
Motor Liability	8.0%	117,441,153	8.0%	99,127,212

Total Volume	187,651,186	158,286,024
Total Std	6,54%	6,54%
SCR UW Non Life	21,558,598	18,186,435



QIS5 - Practical Example

Case 1: With Non Prop (high layers) Reinsurance Strategy / Summary of results

- Summary of results: available capital is still not sufficient to cover required capital

	With Geo div	Without Geo div
SCR Non Life	18,186,435	21,558,598

SCR Default	449,011	474,097
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Mkt interest rate assets UP	8,752,011	8,752,011
Mkt Interest rate liabilities UP	-4,229,950	-4,229,950
Mkt interest rate assets Down	-7,416,959	-7,416,959
Mkt Interest rate liabilities Down	3,859,321	3,859,321
Mkt equity	7,091,884	7,091,884
Mkt Real Estate	1,753,420	1,753,420
Mkt Spread	6,199,937	6,199,937
SCR Market	14,413,018	14,413,018

BSCR	26,098,829	29,012,629
SCR Operational	2,098,873	2,333,201
SCR	28,197,702	31,345,831

Coverage Ratio	102%	92%
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<i>Fixed Income</i>	156,569,103		
Reinsurance	7,633,952	Other Liabilities	40,000,000
		Insurance Liabilities	124,254,174
Total	193,147,577	Total	193,147,577

amounts in €



QIS5 - Practical Example

Case 2: With Non Prop (low layers) Reinsurance Strategy

- ❑ **Non Proportional** Reinsurance strategy with lower priorities
 - ❑ Unlimited XS 150k€ for Motor Liability
 - ❑ Unlimited XS 50 k€ for Fire
- ❑ Solvency II Balance Sheet as of end 2009: high reinsurance retro reserves.

NP Reinsurance			
Assets		Liabilities	
Investments	158,241,342	Available Capital	28,893,403
<i>Lands and buildings</i>	5,982,603		
<i>Equities</i>	18,706,797		
<i>Fixed Income</i>	133,551,943	Other Liabilities	40,000,000
Reinsurance	34,906,235	Insurance Liabilities	124,254,174
Total	193,147,577	Total	193,147,577



	With Geo div	Without Geo div
SCR	22,644,877	24,856,460
Coverage Ratio	128%	116%

QIS5 - Practical Example

Case 2: With Non Prop (low layers) Reinsurance Strategy



	With Geo div	Without Geo div
SCR UW Non Life	13,126,426	15,564,010
SCR Default	1,506,559	1,557,210
Mkt interest rate assets UP	7,465,382	7,465,382
Mkt Interest rate liabilities UP	-3,240,753	-3,240,753
Mkt interest rate assets Down	-6,326,595	-6,326,595
Mkt Interest rate liabilities Down	2,956,797	2,956,797
Mkt equity	6,049,309	6,049,309
Mkt Real Estate	1,495,651	1,495,651
Mkt Spread	5,288,487	5,288,487
SCR Market	12,414,324	12,414,324
BSCR	20,959,324	23,006,290
SCR Operational	1,685,553	1,850,170
SCR	22,644,877	24,856,460
Coverage Ratio	128%	116%

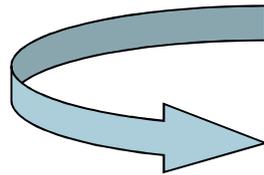
QIS5 - Practical Example

Case 2: With Non Prop (low layers) Reinsurance Strategy



- Geographical split of premiums and reserves in each line of business

	Reserves	Premiums
Zone 1	68%	27%
Zone 2	9%	33%
Zone 3	23%	40%



	Motor		Fire	
	Reserve Vol.	Premium Vol.	Reserve Vol.	Premium Vol.
Zone 1	43,216,516	7,186,452	17,984,664	8,451,279
Zone 2	5,380,194	8,811,410	2,238,981	10,362,232
Zone 3	14,495,319	10,471,663	6,032,264	12,314,693
	63,092,029	26,469,525	26,255,910	31,128,203

QIS5 - Practical Example

Case 2: With Non Prop (low layers) Reinsurance Strategy / SCR Uw Non-Life



- For each lob, combination of premiums and reserves net of reinsurance to derive “premiums and reserves” volume (geographical diversification) and standard deviation (premium and reserve 50% correlation)

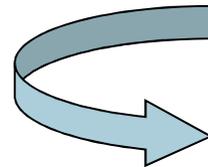
	Without Geo Diversification		With Geo Diversification	
	Fire	Motor	Fire	Motor
Std. Premiums	6,83%	4,82%	6,83%	4,82%
Corr. Premium/Reserves	50%	50%	50%	50%
Std. Reserves	11.0%	9.5%	11.0%	9.5%
Ceded Premium	4,526,917	17,269,393	4,526,917	17,269,393
Premium Volume (net of reinsurance)	31,128,203	26,469,525	31,128,203	26,469,525
Reserve Volume (net of reinsurance)	26,255,910	63,092,029	26,255,910	63,092,029
Geo Diversification	0%	0%	63,73%	62,11%
Std Premium and Reserves	7,6%	7,5%	7,6%	7,5%
Premiums and Reserves Volume	57,384,113	89,561,554	48,241,007	75,655,494

QIS5 - Practical Example

Case 2: With Non Prop (low layers) Reinsurance Strategy / SCR Uw Non-Life



- Combination of lobs volumes and standard deviation applying the corresponding correlation between motor and fire



	Motor	Fire
Motor Liability	100%	25%
Fire	25%	100%

	No Geo Diversification		With Geo Diversification	
	No Reinsurance		No Reinsurance	
	Sigma lob	V lob	Sigma lob	V lob
Fire	7,60%	57,384,113	7,60%	48,241,007
Motor Liability	7,51%	89,561,554	7,51%	75,655,494

Total Volume	146,945,667	123,896,501
Total Std	6.04%	6.05%
SCR UW Non Life	15,564,010	13,126,426

QIS5 - Practical Example

Case 2: With Non Prop (low layers) Reinsurance Strategy / Summary of results



- Summary of results: coverage ration goes beyond 100% but higher price for the reinsurance program

	With Geo div	Without Geo div
SCR UW Non Life	13,126,426	15,564,010

SCR Default	1,506,559	1,557,210
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Mkt interest rate assets UP	7,465,382	7,465,382
Mkt Interest rate liabilities UP	-3,240,753	-3,240,753
Mkt interest rate assets Down	-6,326,595	-6,326,595
Mkt Interest rate liabilities Down	2,956,797	2,956,797
Mkt equity	6,049,309	6,049,309
Mkt Real Estate	1,495,651	1,495,651
Mkt Spread	5,288,487	5,288,487
SCR Market	12,414,324	12,414,324

BSCR	20,959,324	23,006,290
SCR Operational	1,685,553	1,850,170
SCR	22,644,877	24,856,460

Coverage Ratio	128%	116%
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Reinsurance	34,906,235	Other Liabilities	40,000,000
Total	193,147,577	Insurance Liabilities	124,254,174
		Total	193,147,577

amounts in €



QIS5 - Practical Example

Case 3: With Prop Reinsurance Strategy

- ❑ 44% Quota Share
- ❑ Solvency II Balance Sheet as of end 2009: high reinsurance retro reserves. Coverage Ratio much higher but at what price ?

Prop Reinsurance / QS 44%			
Assets		Liabilities	
Investments	125,565,240	Available Capital	28,893,403
<i>Lands and buildings</i>	4,671,610		
<i>Equities</i>	14,607,496		
<i>Fixed Income</i>	104,286,134	Other Liabilities	40,000,000
Reinsurance	69,582,337	Insurance Liabilities	124,254,174
Total	193,147,577	Total	193,147,577



	With Geo div	Without Geo div
SCR	17,827,503	19,394,304
Coverage Ratio	162%	149%

QIS5 - Practical Example

Case 3: With Prop Reinsurance Strategy



	With Geo div	Without Geo div
SCR UW Non Life	9,353,654	11,100,205
SCR Default	2,428,212	2,494,451
Mkt interest rate assets UP	5,829,461	5,829,461
Mkt Interest rate liabilities UP	-1,983,011	-1,983,011
Mkt interest rate assets Down	-4,940,221	-4,940,221
Mkt Interest rate liabilities Down	1,809,259	1,809,259
Mkt equity	4,723,698	4,723,698
Mkt Real Estate	1,167,902	1,167,902
Mkt Spread	4,129,598	4,129,598
SCR Market	9,893,671	9,893,671
BSCR	16,500,528	17,951,630
SCR Operational	1,326,976	1,443,674
SCR	17,827,503	19,394,304
Coverage Ratio	162%	149%



QIS5 - Practical Example

Case 4: With Loss Portfolio Transfer Strategy

- ❑ Loss Portfolio transfer of first 3 years of Motor business
- ❑ 79% of the Motor ptf -> 56% of the global ptf

Prop Reinsurance / QS 44%			
Assets		Liabilities	
		Available Capital	28,893,403
Investments	123,628,042		
<i>Lands and buildings</i>	4,673,984		
<i>Equities</i>	14,614,920		
<i>Fixed Income</i>	104,339,138	Other Liabilities	40,000,000
Reinsurance	0	Insurance Liabilities	54,734,639
Total	123,628,042	Total	123,628,042



	With Geo div
SCR	20,532,988
Coverage Ratio	141%

QIS5 - Practical Example

Case 4: With Loss Portfolio Transfer Strategy



	With Geo div
SCR Non Life	13,936,571
SCR Default	0
Mkt interest rate assets UP	5,832,424
Mkt Interest rate liabilities UP	-1,985,289
Mkt interest rate assets Down	-4,942,732
Mkt Interest rate liabilities Down	1,811,337
Mkt equity	4,726,099
Mkt Real Estate	1,168,496
Mkt Spread	4,131,697
SCR Market	9,898,206
BSCR	19,004,632
SCR Operational	1,528,356
SCR	20,532,988
Coverage Ratio	141%

QIS5 - Practical Example

Summary of results



		Motor : III XS 1 250 000 Fire : III XS 200 000	Motor : III XS 150 000 Fire : III XS 50 000		
<i>amounts in /</i>	No Reinsurance	Reinsurance 1 - NP factor calculated	Reinsurance 2 - NP factor calculated	Reinsurance QP 44%	Reinsurance QP 44% Different retro ratings *
SCR Non Life	21,258,306	18,186,435	13,126,426	9,353,654	9,353,654
SCR Default	0	449,138	1,506,559	2,428,212	6,047,117
SCR Market	14,974,175	14,413,018	12,414,324	9,893,671	9,893,671
SCR Operational	2,324,275	2,098,873	1,685,553	1,326,976	1,514,573
SCR	31,225,905	28,197,702	22,644,877	17,827,503	20,347,813
Available Capital	28,893,403	28,893,403	28,893,403	28,893,403	28,893,403
Coverage Ratio	93%	102%	128%	162%	142%
Capital Saving compared to no Reinsurance	-	3,028,203	8,581,029	13,398,402	10,878,092
Ceded Premium	-	8,363,073	21,796,310	44,460,661	44,460,661
Coverage Ratio w/o geo diversification	83%	92%	116%	149%	
Coverage Ratio with geo - monolob (Motor)	106%			177%	
Coverage Ratio with geo - LPT Motor *	141%				

* first 3 years of business (79% of the Motor ptf - 56% of the global ptf)

Agenda



1	Solvency 2 - Global overview
2	Fifth quantitative impact study (QIS5)
3	QIS5 - Practical example
4	Conclusions

Conclusions



- ❑ Non-proportional reinsurance is a valuable tool in managing risk
- ❑ Solvency 2 allows to consider risk mitigation techniques when assessing capital requirements and efforts have been made by European Commission to take into account non proportional covers

However more efforts need to:

- ❑ QIS5 technical specifications do not allow to fully benefit from reinsurance
 - ❑ the adjustment factors applied to premium cannot be applied for all types of non-proportional reinsurance cover (for example whole account XoL) and
 - ❑ Non-proportional reinsurance covers are subject to restrictive eligibility rules
- ❑ A more appropriate methodology needs to be developed to have an accurate recognition of these mitigation techniques