International Association for the
Study of Insurance Economics

Études et Dossiers

Études et Dossiers No. 337

The Insurance Industry and Enterprise Risk Management: From Compliance to Value Creation

21 November 2007
Milan

&

Uninsured Industrial Risks

Ongoing Research Project
by Tileman Fischer

December 2007

Working Paper Series of
The Geneva Association

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The Geneva Association Working Paper Series "Études et Dossiers" appear at irregular intervals about 10 - 12 times per year. Distribution is limited.

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Layout & Distribution: Valéria Kozakova

Solvency II: QIS 3 Results and Future Developments

Carlos Montalvo Rebuelta

“Bisogna cambiare tutto per non cambiare nulla".

12/14/2007 Page 2

Executive summary

QIS 3 is a test, and that's how it has to be approached.

First calibration exercise.

It shows that the EU insurance industry appears to be well capitalized.

12/14/2007 Page 3

Index

- **Introduction**
- **QIS 3 results**
- **Future developments**

12/14/2007 Page 4

Index

- **Introduction:**
- **CEIOPS activity.**
- **Solvency II project.**
- **Contributions.**

12/14/2007 Page 5

Introduction to CEIOPS activity

Since its establishment, CEIOPS' activity has operated in a particular legislative context, very different from that of the other L3 committees.

- In insurance, a radical change is under preparation. CEIOPS received waves of calls for advice for the Solvency II framework directive (level 1), and is now involved in drafting advice for the level 2.
- In pension funds and intermediary sectors, the EU legislative framework is recently transposed and achieves a limited degree of harmonization. …But decissions will be made in 2008.
- There's as well an important joint 3L3 work ongoing: Medium Term WPr.

CEIOPS has shaped its organisation and workplan accordingly; scope for Level 3 activity, restricted and challenging…

12/14/2007 Page 6

CEIOPS

Solvency II project: Drivers

- Consistency with economic reality and risk sensitiveness.
- Compatibility with IASB.
- Incentives for internal risk management.
- Streamlined group supervision.
- Comparability with banking rules.

12/14/2007 Page 7

Potential Hurdles to Solvency II

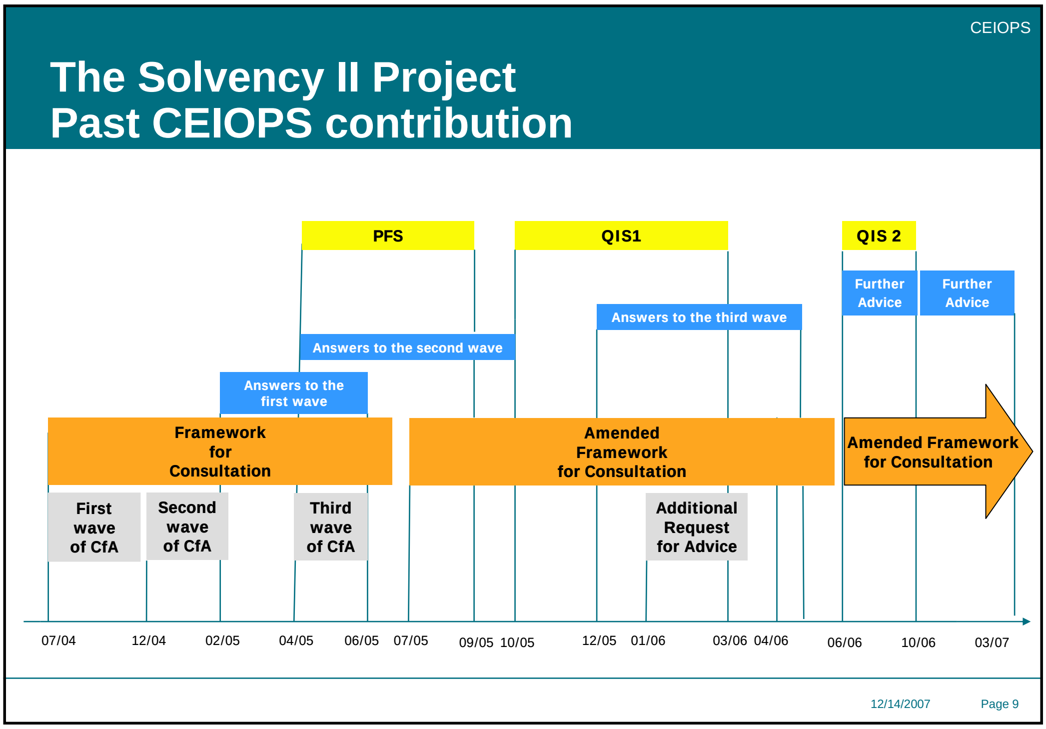
Complexity of the new supervisory framework

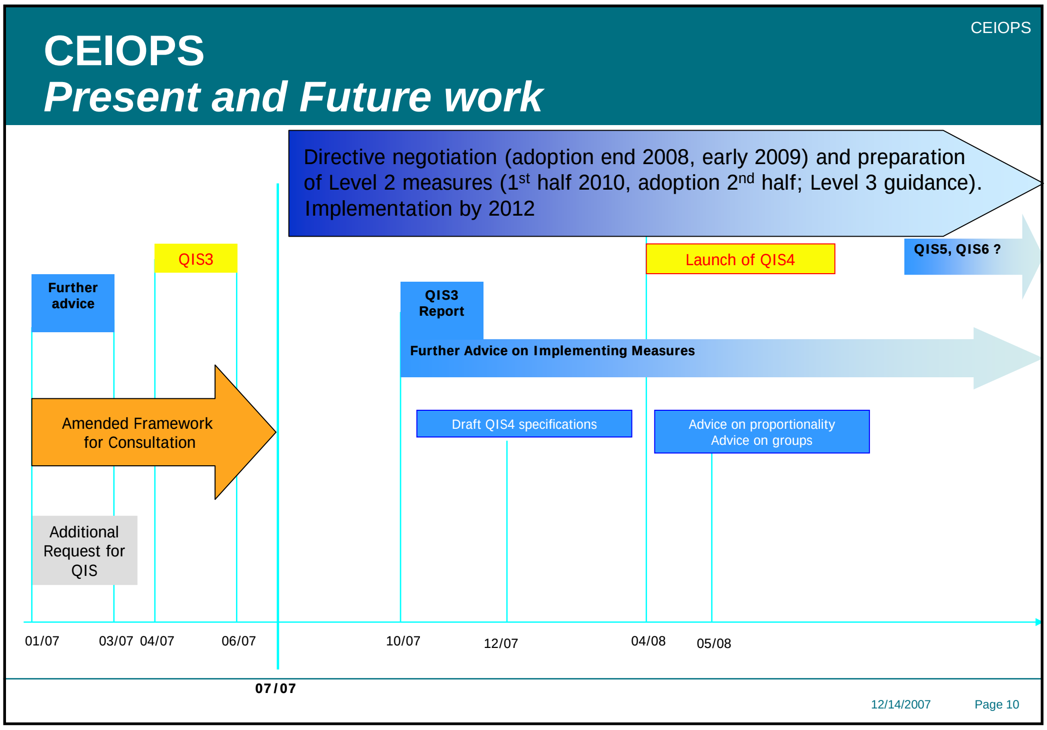
- Supervisory discretion inherent to a principle based approach
- Inconsistent national implementations
- Divergent approach and tools in national supervision
- Lack of expertise at national level
- Fragmented supervisory process
- High cost for compliance

The legislative framework should set the basis for avoiding or limiting these issues.
But this needs to be complemented by appropriate actions at level 3.

CEIOPS to deal with these issues as a Level 3 committee

12/14/2007 Page 8


CEIOPS
The Solvency II Project
Past CEIOPS contribution
PFS
QIS1
QIS 2
Further Advice
Further Advice
Answers to the third wave
Answers to the second wave
Answers to the first wave
Framework for Consultation
Amended Framework for Consultation
Amended Framework for Consultation
First wave of CfA
Second wave of CfA
Third wave of CfA
Additional Request for Advice
07/04
12/04
02/05
04/05
06/05
07/05
09/05
10/05
12/05
01/06
03/06
04/06
06/06
10/06
03/07
12/14/2007
Page 9


CEIOPS
CEIOPS
Present and Future work
Directive negotiation (adoption end 2008, early 2009) and preparation of Level 2 measures (1st half 2010, adoption 2nd half; Level 3 guidance). Implementation by 2012
QIS3
Launch of QIS4
QIS5, QIS6 ?
Further advice
QIS3 Report
Further Advice on Implementing Measures
Amended Framework for Consultation
Draft QIS4 specifications
Advice on proportionality
Advice on groups
Additional Request for QIS
01/07
03/07
04/07
06/07
10/07
12/07
04/08
05/08
07/07
12/14/2007
Page 10

Index

- **QIS 3 results:**
- **Aim.**
- **Approach.**
- **Financial impact.**
- **Participation.**
- **Summary.**
- **Technical provisions.**
- **MCR.**
- **SCR.**
- **Capital.**
- **Groups**

12/14/2007 Page 11

QIS exercises

Aim: to test the implications and impact of the different alternatives under scrutiny

QIS are tests, and they have to be approached that way

Quantitative information… but also qualitative

QIS 3 the third of this exercises, and based to the extent possible in the draft Directive proposal

12/14/2007 Page 12

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QIS 3: aims of the exercise

- High participation rate by the industry
- Practicability and suitability of calculations and alternatives
- Impact on balance sheets and amount of capital needed
- Suitability of the tentative calibrations
- Impact at group level

12/14/2007 Page 13

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QIS 3: General approach

- Minimum of options and double calculations
- Reduced complexity and better explanation of underlying rationale
- “Best efforts basis”
- Analysis of group data

12/14/2007 Page 14

CEIOPS

QIS 3: Financial impact

- Composition of the balance sheet: no significant change with regards to Solvency I.
- Decrease in technical provisions: implicit prudence disappears.
- Majority of firms able to meet MCR (98%).
- SCR ratio lower as compared to Solvency I; more risks taken into account.
- No extra capital needed… although there will be a redistribution.

12/14/2007 Page 15

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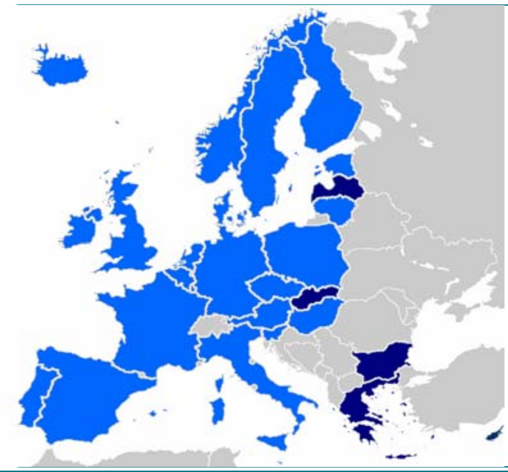
QIS 3: Participation



28 out of 30

EEA members

participated

12/14/2007 Page 16

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QIS 3: Participation by country

Country	Life	Non-Life	ein--suranc	Composite	**Total**	Mutuals thereof	Health thereof
Austria	6	10	0	11	**27**	3	6
Belgium	1	6	0	8	**15**	0	0
Bulgaria	2	4	0	0	**6**	0	1
Cyprus	3	2	0	0	**5**	0	0
Czech Republic	1	3	0	8	**12**	0	0
Denmark	31	38	0	0	**69**	16	0
Estonia	4	3	0	0	**7**	0	0
Finland	8	11	0	0	**19**	7	0
France	41	52	2	59	**154**	77	0
Germany	60	110	9	0	**179**	41	23
Greece	1	0	0	0	**1**	0	0
Hungary	4	3	0	6	**13**	1	0
Iceland	2	5	0	0	**7**	0	0
Ireland	16	16	7	0	**39**	0	0
Italy	29	26	0	18	**73**	2	0
Latvia	1	1	0	0	**2**	0	0
Lithuania	3	8	0	0	**11**	0	0
Luxembourg	6	7	3	0	**16**	2	2
Malta	2	2	0	1	**5**	0	0
Netherlands	14	44	0	0	**58**	14	23
Norway	3	16	0	0	**19**	5	0
Poland	9	15	0	0	**24**	2	0
Portugal	14	14	0	5	**33**	1	0
Slovakia	3	0	0	2	**5**	0	0
Slovenia	2	2	2	5	**11**	1	0
Spain	15	57	2	34	**108**	38	0
Sweden	14	13	0	0	**27**	22	0
United Kingdon	35	43	3	1	**82**	19	0
Total	**330**	**511**	**28**	**158**	**1027**	**251**	**55**

12/14/2007 Page 17

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QIS 3: Market coverage

Country	Life	Non-Life	Health
Austria	88.6	69.9	100.0
Belgium	68.0	55.0	
Bulgaria	44.0	24.0	59.0
Cyprus	56.0	13.0	
Czech Republic	84.7	90.9	
Denmark	75.0	76.3	
Estonia	87.0	31.0	
Finland	95.0	89.0	
France	80.8	56.4	
Germany	84.0	77.0	84.0
Greece	12.0	0.0	
Hungary	86.0	86.0	
Iceland	72.0	100.0	
Ireland	47.0	37.0	
Italy	71.3	82.4	
Latvia	41.0	10.0	
Lithuania	41.9	74.7	
Luxembourg	9.0	60.0	89.0
Malta	92.0	17.5	
Netherlands	68.0	57.0	68.0
Norway	62.6	88.5	
Poland	74.0	80.9	
Portugal	98.7	93.7	
Slovakia	50.1	47.6	
Slovenia	97.0	88.0	
Spain	76.2	77.8	
Sweden	61.0	65.0	
United Kingdom	65.8	73.5	

12/14/2007 Page 18

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QIS 3: Participation by size

Type of undertaking	Small	Medium	Large
Life undertakings	116	135	79
Non-life undertakings	254	194	63
Pure reinsurers	12	10	6
Composites	40	79	39
All respondens	**422**	**418**	**187**
Mutuals thereof	118	99	34
Health undertakings thereof	16	29	10

12/14/2007 Page 19

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QIS 3: summary

- Broad impact
  - TP decreases, capital requirement increases
    … philosophy of SII in removing implicit prudence in the TP and including more risks in the capital requirements
  - Most undertakings see a decrease in the solvency ratio…
  - …but remain solvent
- Capital
  - Little information on impact of Tier structure
- Technical Provisions
  - Life: problems with valuation of options and guarantees
  - Non-life: segmentation issues

12/14/2007 Page 20

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QIS 3: summary (II)

- SCR
  - Many comments on individual modules…
  - …especially on non-life parameterisation, credit default risk and on the correlations
- MCR
  - Compact and modular approaches tested
  - Some negative MCRs observed due to profit sharing policies in life business
- Group results
  - Less data received than was hoped for: 50 group results from 16 member states

12/14/2007 Page 21

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QIS 3: Technical provisions: best estimate

- Approach in QIS3 was very similar to QIS2
- For *life* firms, the most difficult areas appeared to be
  - Valuation of future discretionary benefits
  - Valuation of options and guarantees
- For *non-life* firms, the most difficult areas appeared to be
  - Segmentation by line of business
  - Assessment of premium provisions

12/14/2007 Page 22

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QIS 3: Technical provisions: risk margin

- Most firms applied the CEIOPS Helper tab in the QIS3 spreadsheet to calculate risk margins…
  - …though a number of SMEs felt that the CEIOPS methodology is complicated and data demanding
- Diversification between lines of business was sought by many firms (the effect being generally a reduction of between 5 and 35%)
- A few firms expressed interest in an alternative approach for long-tail business and some of these suggested a percentile approach

12/14/2007 Page 23

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QIS 3: MCR

- Modular approach tested. Two alternatives.
- CEA compact approach calculated.
- Non-life: consistency with the calibration target and interplay with SCR.
- Life: different outcomes. Difficult interaction with SCR.

12/14/2007 Page 24

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QIS 3: SCR

- In general, the calculated QIS3 solvency ratio for most participating undertakings is lower than the Solvency I solvency ratio.
- Need to take into account that QIS3 takes more risks into account than Solvency I; move from implicit prudence in technical provisions to explicit risk based solvency buffer;
- However, few undertakings have a calculated QIS3 solvency ratio of less than 100%
  - Comparison of QIS3 SCR to the "effective Solvency I capital requirement" (SI capital requirement plus difference between the SI and QIS3 technical provisions)
  - Impact seems to be largest in non-life.
  - Some supervisors thought that smaller insurers might be more likely to be required to raise new capital; especially smaller mono-line non-life undertakings were mentioned

12/14/2007 Page 25

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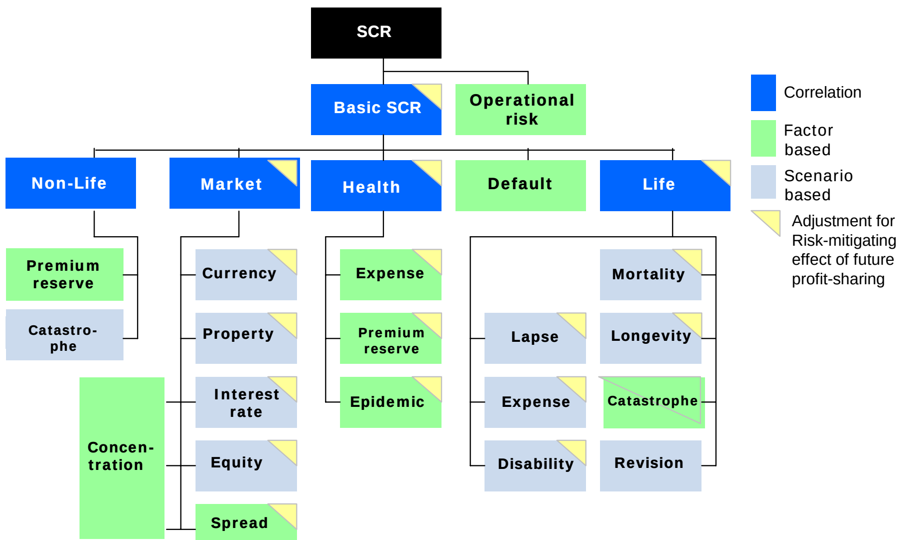
QIS3: SCR Standard formula



12/14/2007 Page 26

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QIS 3: Capital

- Nearly all capital was allocated to Tier 1
  - There were slightly more *subordinated loans* in Tier 1 than in Tier 2, and very few in Tier 3
- It was generally unclear how firms had allocated their capital between each Tier
- Most firms and supervisors said that they would have appreciated clearer guidance, and examples, on the classification of own funds

12/14/2007 Page 27

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QIS 3: Groups

- Testing the standard approach for groups capital requirements
  - Recognition of diversification.
  - Practicability of the formula.
- Collecting data on internal models
  - Entities and scope of models.
  - Measure of diversification benefits.
  - Type and treatment of group specific risks.

12/14/2007 Page 28

Index

- **Future developments:**

- QIS 4

QIS 4: Political guidance needed

- MCR
- Equity risk
- Groups: diversification and third countries
- Taxation

CEIOPS

Committee of European Insurance and Occupational Pensions Supervisors

Thank you!

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12/14/2007 Page 32