

LE RENDEZ-VOUS DE L'ASSURANCE TRANSPORTS

Cannes
4th and 5th May 2010



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Solvency II

Implications for non-life marine insurers

Yves Colomb

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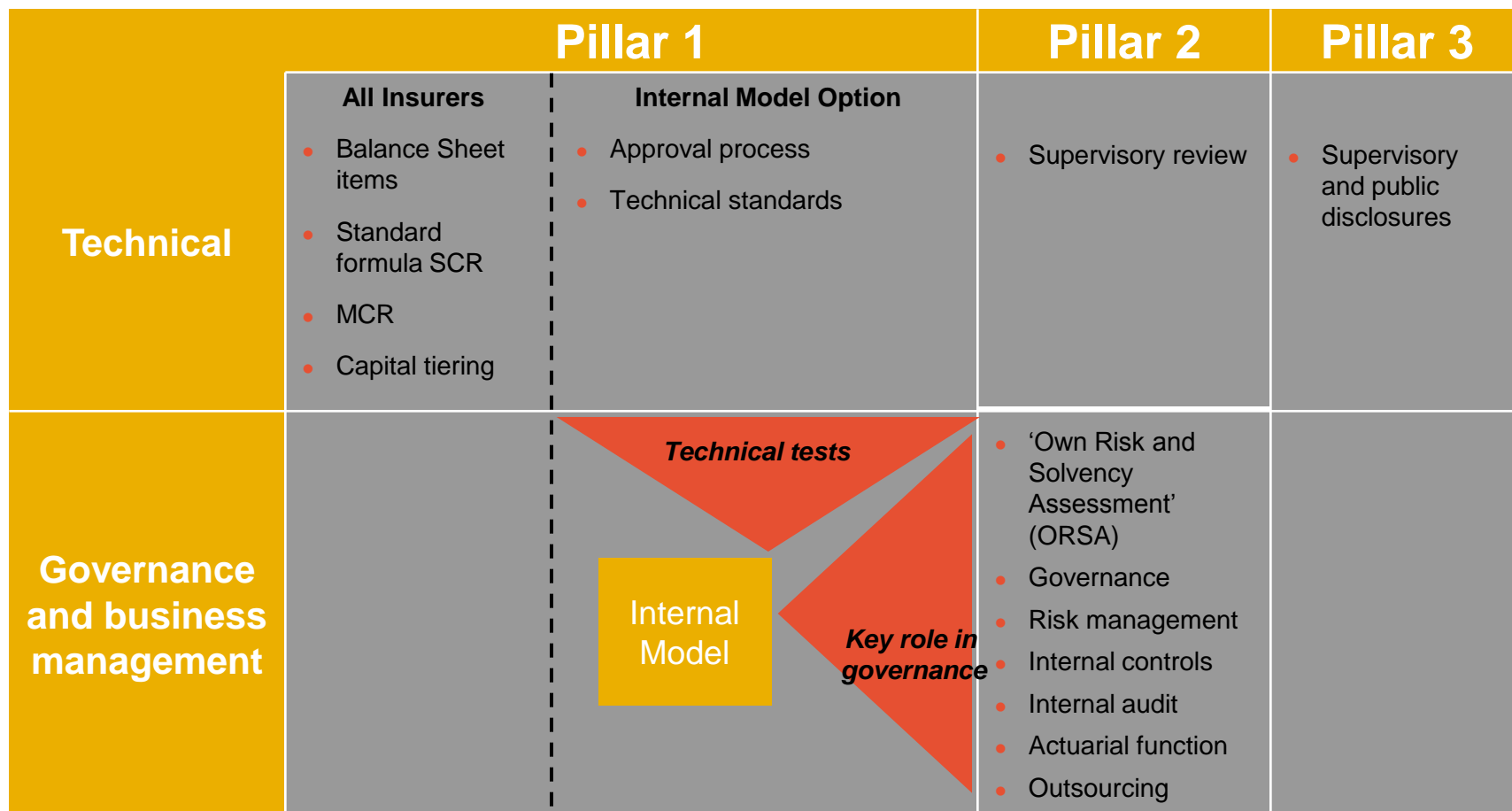
5 May 2010

TOWERS WATSON 

Potential for widespread disruption across Europe



Solvency II Basics: The Three Pillars



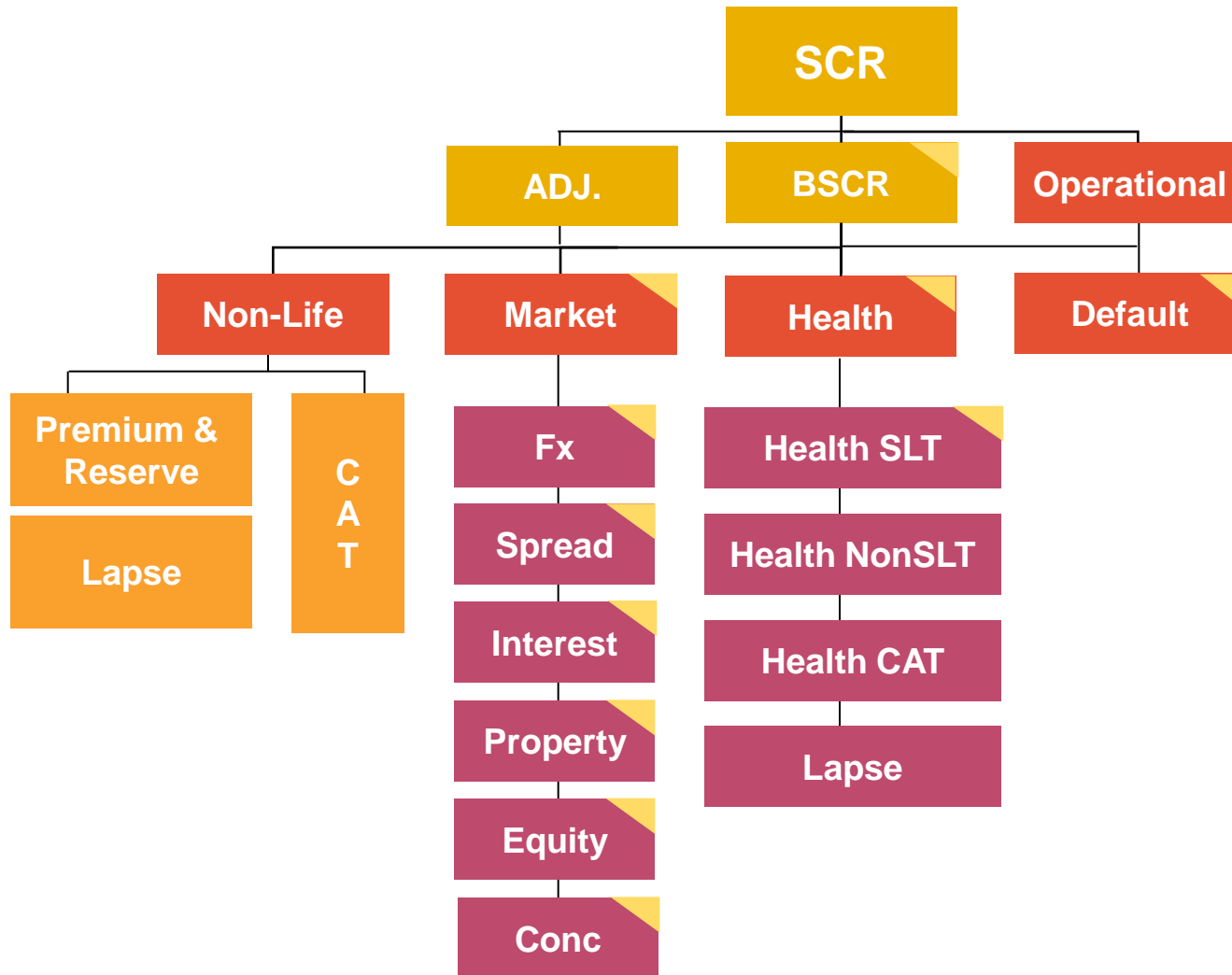
Solvency II basics – The Lamfalussy Process

Level 1 Framework Directive	Developed by Commission Approved by European Parliament and Council
Level 2 Implementing measures	Developed by Commission (advice from CEIOPS) Objection/Non-objection by EIOPC and EP
Level 3 Guidance	Developed by CEIOPS (later EIOPA) Reviewed by Commission
Level 4 Enforcement	Commission review of implementation by Member States
Intense lobbying and political negotiation	

Consequences

- Potential for greater capital requirements
- Market disruption
- Move to an economic basis
- Holistic approach to risk management

SCR: Structure non-life and health



SCR standard formula: Premium risk factors

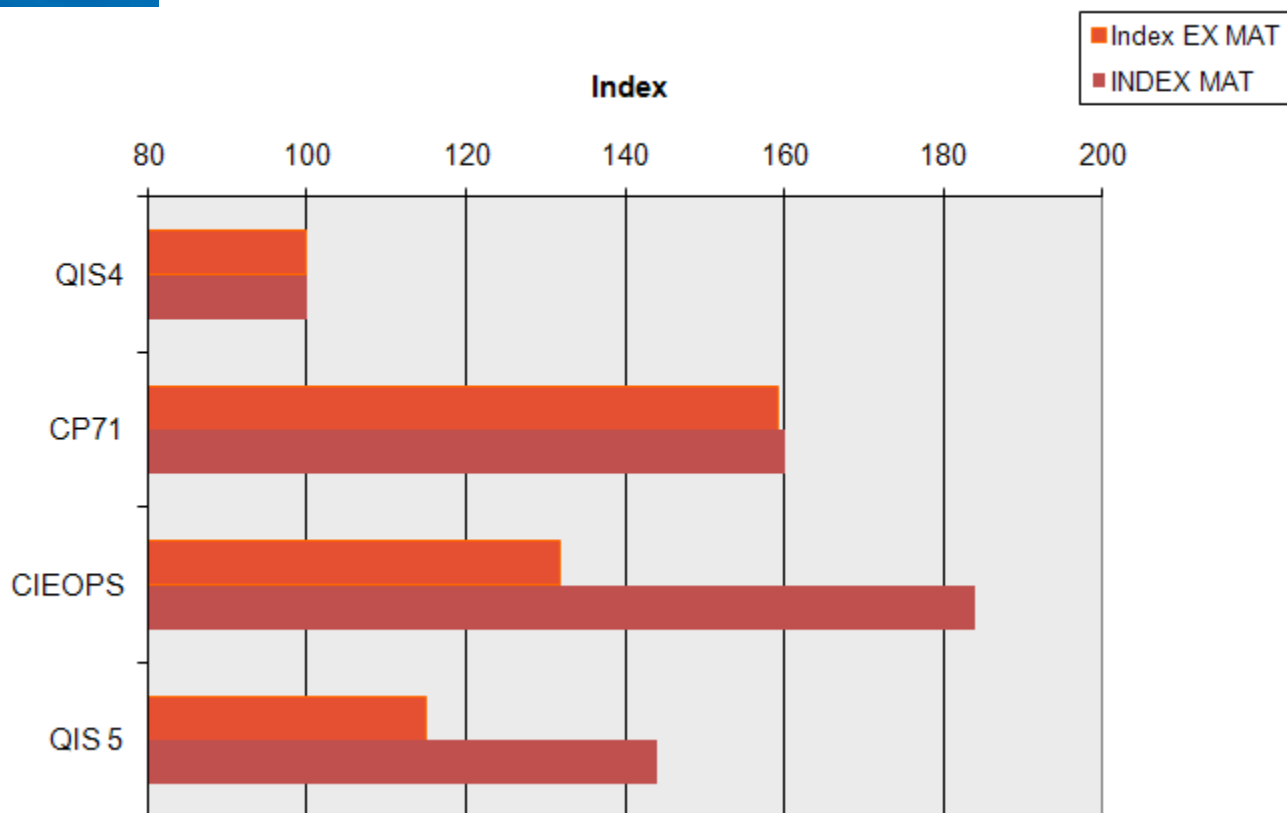
Line of business (LOB)	QIS4	CP71	Final CEIOPS advice before adjustment	QIS5 before adjustment
Motor TPL	9.0%	10.0%	11.5%	10.0%
Motor Other	9.0%	10.0%	8.5%	8.5%
MAT	12.5%	20.0%	23.0%	18.0%
Fire and other damage	10.0%	12.5%	15.0%	12.5%
TPL	12.5%	17.5%	17.0%	15.0%
Credit & suretyship	15.0%	20.0%	28.0%	21.5%
Legal expenses	5.0%	7.5%	8.0%	6.5%
Assistance	7.5%	10.0%	5.0%	5.0%
Miscellaneous	11.0%	20.0%	15.5%	13.0%
NPL Property	15.0%	30.0%	20.0%	17.5%
NPL MAT	15.0%	30.0%	18.5%	17.0%
NPL Casualty	15.0%	30.0%	16.5%	16.0%
Index	100	159	137	118

Consequences - capital increases

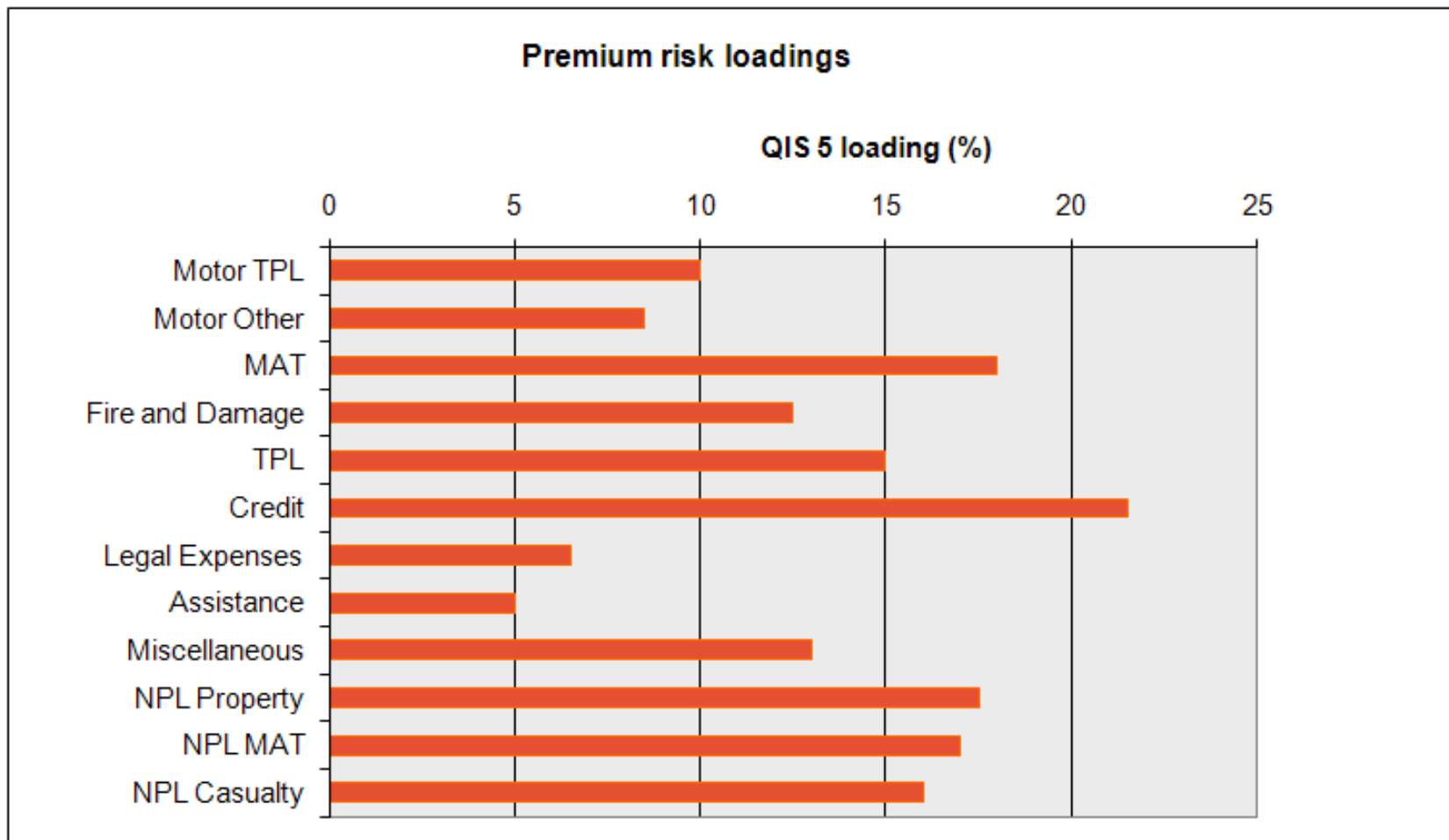
Insurers
fear need
for £50bn
cash call



Standard Formula Calibration - Premium risk



Consequences - capital increases



Consequences – market disruption

- Internal re-organisation (Societas Europaea; subsidiaries moving to branches)
- Transfers of legacy business
- Sales of non-core books of business
- Issues with Equivalence e.g. for Switzerland, Bermuda, US
- Redomestication
- M&A activity (especially with specialist insurers)
- Reinsurers acting as acquirers of business

Premium risk factors: Net-gross ratio

$$\frac{NCR_i}{GCR_i} = \sqrt{\frac{1 + \Omega_{lob}^{net} / M_{lob}^{net^2}}{1 + \Omega_{lob}^{gross} / M_{lob}^{gross^2}}}$$

where

$$M_{lob}^{net} = M_{lob}^{gross} \cdot \left[1 - F_{m+\sigma^2, \sigma}(a+b) + F_{m+\sigma^2, \sigma}(a) \right] + a \cdot \left[F_{m, \sigma}(a+b) - F_{m, \sigma}(a) \right] - b \cdot \left[1 - F_{m, \sigma}(a+b) \right]$$

$$\Omega_{lob}^{net} = \left(\left(\Omega_{lob}^{gross^2} + M_{lob}^{gross^2} \right) \cdot \left[1 - F_{m+2\sigma^2, \sigma}(a+b) + F_{m+2\sigma^2, \sigma}(a) \right] + a^2 \cdot \left[F_{m, \sigma}(a+b) - F_{m, \sigma}(a) \right] - 2b \cdot M_{lob}^{gross} \cdot \left[1 - F_{m+\sigma^2, \sigma}(a+b) + F_{m+\sigma^2, \sigma}(a) \right] + b^2 \cdot \left[1 - F_{m, \sigma}(a+b) \right] - M_{lob}^{net^2} \right)^{1/2}$$

$$\sigma = \sqrt{\ln \left(1 + \left(\frac{\Omega_{lob}^{gross}}{M_{lob}^{gross}} \right)^2 \right)}$$

$$m = \ln M_{lob}^{gross} - \frac{\sigma^2}{2}$$

Conclusions

- Need for MAT to demonstrate higher returns
- Importance of internal model
 - if you want to demonstrate your risk is lower
- Standard formula now allows for non-proportional reinsurance
 - internal model even more so

Q&A and contact details

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