Use of internal models in ICS 2.0

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The CRO Forum is a group of professional risk managers from the insurance industry that focuses on developing and promoting industry best practices in risk management. The Forum consists of Chief Risk Officers from large multi-national insurance companies. It aims to represent the members' views on key risk management topics, including emerging risks.

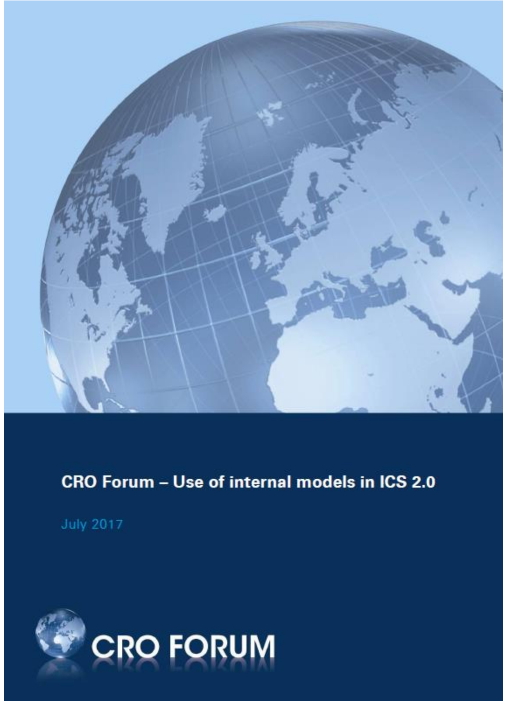
The CRO Forum – established in 2004 – has 23 large multi-national insurance companies as members and has three core aims:

1. **Championing best practice in risk management to advance business**
2. **Alignment of regulatory requirements with best practice in risk management**
3. **Providing insights on emerging and long-term risks**

"Overall, the CRO Forum welcomes the development of a risk-based global insurance standard as it would ultimately lead to a convergence of insurance frameworks around the globe, removing artificial discrepancies, facilitating efficient and effective supervision and – if widely implemented – ensuring a level playing field."

Publication: Use of internal models in ICS 2.0

- The CRO Forum shares its views on topics related to the three core aims through publications and papers.
- **The paper 'Use of internal models in ICS 2.0' was published earlier this year on 21 July 2017 and**
  1. presents the **perspective and experience** to date with regard to the use of internal modes by the insurance industry;
  2. demonstrates why the use of internal models should be an important component and **integral part of ICS 2.0**, in addition to standard approach;
  3. outlines the **options available to regulators** for allowing the use of internal models and takes a detailed look at the advantages that internal models can bring.



The choice of an appropriate valuation methodology, which is undoubtedly a fundamental issue in this context, is not dealt with in this paper. We are, however, well aware that internal models capture the risk of change in asset and liability values based on a range of considerations using various approaches.

> ***"…the best way to achieve optimum social and regulatory outcomes for policyholders is via a regulatory regime that allows insurers to use full or partial internal models subject to supervisory approval if they consider the standard approach inappropriate for their business and risk profile."***

Internal models	Not allowing the use of internal models
• Provide a more accurate picture of an insurer’s risk profile • Provide an incentive to manage the business better and improve risk management • Improve product development and the pricing process • Enhance insurance supervision, cooperation and transparency • Allow regulators to detect poor company performance, intervene in a timely manner and consequently reduce the likelihood and cost of failure • Enable risk mitigation techniques to be appropriately recognized.	• May allow risks to remain hidden • Might encourage pro-cyclical behaviour • Could prevent new risks being reflected appropriately or detected at all, and there would be no motivation to continuously improve risk assessment

Perspective from the industry

The use of internal models incentivise insurers to properly identify, measure, manage and report risks they are exposed to and support their risk management framework, processes and controls

Internal models are fully embedded in the management processes accomplishing a number of important tasks, among others:

- Risk capital assessment (for group, entities, business lines)
- Monitoring business performance and providing capital allocation for pricing purposes
- Determining risk appetite and highlighting key risk exposures.
- Contributing to the strategic asset allocation

Regulators‘ approach to internal models

Regulators already allow the use of internal models in a number of different ways:

- Valuation of assets and liabilities in base balance sheet and in stress scenarios
- Determination of specific parameters in a standard formula
- Calculation of a particular risk modul or type in a standard formula

An increasing number of regulators permit the use of full internal models subject to the insurer’s ability to demonstrate compliance with a number of principles, test and standards:

- Principles for the use of internal models
- Standards for internal model governance
- Statistical quality standards
- Calibration standards
- Validation standards

Do internal models create a lack of comparability across companies?

Are the internal model results of different companies comparable because different insurers will apply different approaches, resulting in different methodologies and calibrations? Where internal models are used for prudential regulatory purposes, can this result in companies being subject to different regulatory capital requirements for the same risks?

- As no two (re)insurance companies are the same, the fundamental benefit of internal models is that it **captures the real differences between the risk profiles**
- Unintended differences can be minimised by defining **common principles and calibration standards**
- Internal models under ICS2.0 should be subject to **supervisory review and approval**
- Capturing individual company risk profiles, internal models ensure a **common level of policyholder protection**

Can internal models be compromised by competitive pressures?

Do models understate risk? For example, it has been observed that the use of internal models to determine minimum regulatory capital requirements, as in the case of Basel II, has resulted in a reduction in aggregate capital in the financial services sector. Is there a risk that a prudential regime that allows insurers to calculate their own capital is compromised over time as companies use models to reduce capital as illustrated by the banking experience?

- Internal models should be subject to **appropriate internal governance and validation**
- Model changes driven by the need for the model to be updated and improved should be subject to **supervision and review by the regulator**
- **Strong governance requirements**: Boards and senior management should be expected to demonstrate an understanding of the model (covered risks, methodology and limitations)

Under the above conditions, there would be no incentive for firms for a race to the bottom

Are internal models pro-cyclical?

From a macro-prudential perspective, could an over-reliance on internal models make the financial system more prone to shocks? Do internal models create the potential for pro-cyclicality, in that capital requirements that are sensitive to changes in financial conditions can be ramped up during a crisis, leading companies individually to retrench at a cost to overall financial stability? Likewise, as conditions improve again, could the incorporation of more positive variables drive capital lower, setting the stage for excessive risk-taking and leverage that augur ill for the future?

- In a prudential framework that allows for internal models, there will be **greater diversity in assumptions**, which will make the framework **more resilient to a uniform shock**
- Frameworks such as the UK ICAS regime, which effectively allowed internal models, proved **resilient during the financial crisis.**
- Recognition of diversification effects through internal models also enables insurers to avoid both **"fire sales"** during a crisis and **excessive risk-taking** during an expansionary period

Take away

- Allowing for the use of internal models in ICS 2.0 is in line with the main objectives of the global risk-based capital standard to

  "promote effective and globally consistent supervision of the insurance industry in order to develop and maintain fair, safe and stable insurance markets for the benefit and protection of policyholders and to contribute to global financial stability." (ICS Principle 2)

- Internal models, where approved and implemented, have been a powerful tool for sophisticated risk management and qualified supervisory oversight

- ICS 2.0 should define appropriate principles and calibration standards for internal models to ensure methodological consistency

Overall, the CRO Forum considers internal models as being an integral part of every state of the art prudential regime and in this respect indispensable in the context of ICS 2.0