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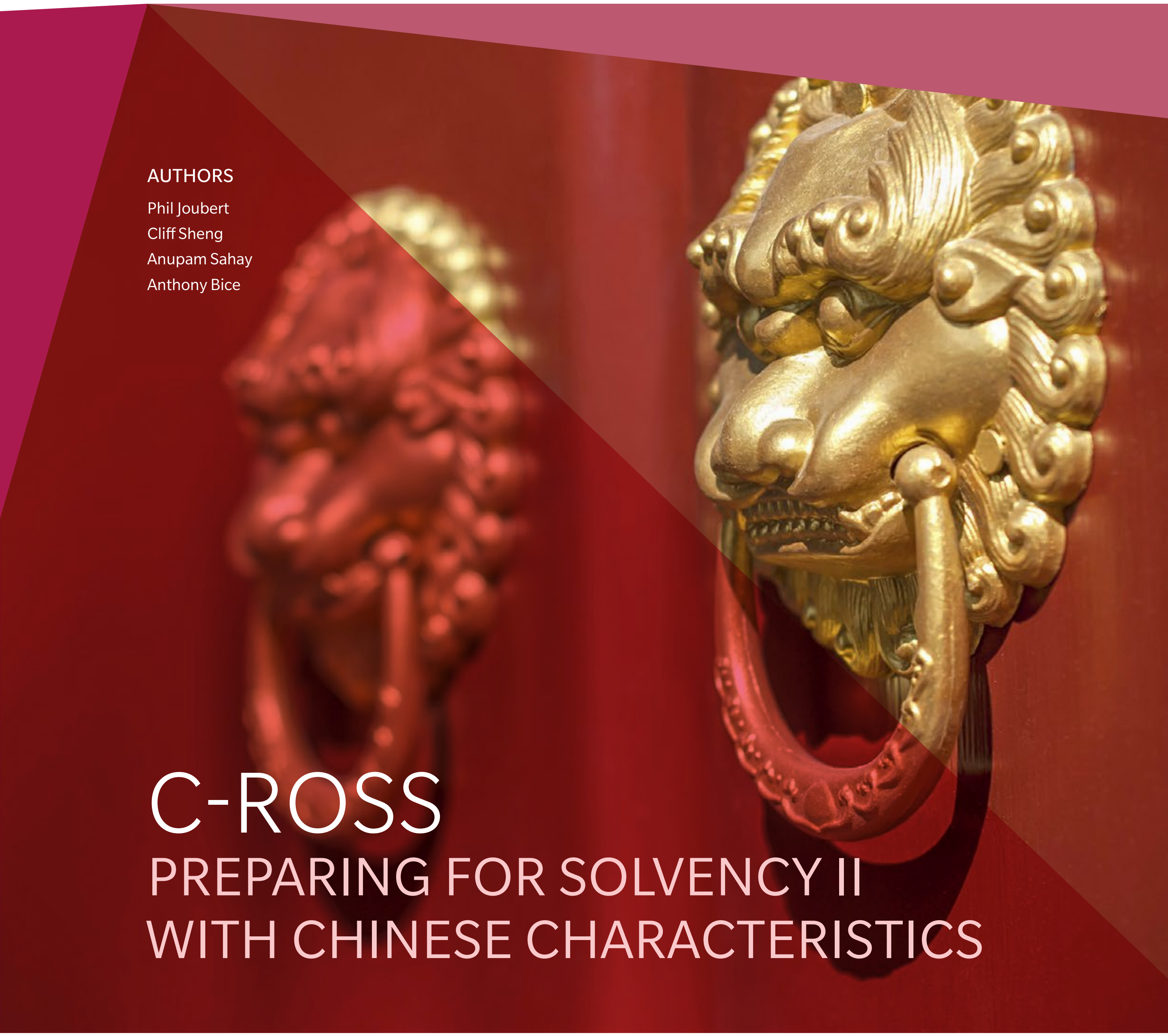


AUTHORS

Phil Joubert
Cliff Sheng
Anupam Sahay
Anthony Bice

C-ROSS

PREPARING FOR SOLVENCY II WITH CHINESE CHARACTERISTICS

MARSH & McLENNAN COMPANIES

The capital and risk management regime for insurers in China is set to change in ways that will have widespread strategic and financial consequences for domestic players as well as foreign joint ventures and investors.

A new set of regulations known as the "China Risk Oriented Solvency System (C-ROSS)," to be introduced in *2015*, will strengthen capital requirements, risk management, and governance in the Chinese insurance industry, bringing it in line with, and in some cases overtaking, similar programs in Europe and Asia.

This article summarizes the current state of the insurance industry in China, describes key elements of the C-ROSS framework, and outlines industrywide changes that may result. It also lays out seven imperatives for CEOs, CFOs, and CROs of Chinese and foreign insurers to help their companies adapt to the new world. Although the draft regulations released so far cover only Property and Casualty (P&C) insurers, where possible and appropriate, we will extrapolate to cover life and composite insurers as well.

STATE OF THE INSURANCE INDUSTRY IN CHINA

The Chinese P&C insurance industry is now the third largest in the world, and by 2020, it is projected to grow into the second largest. The industry in China has been growing at a rate of 26% per annum since 2004, driven by macro-economic growth, increasing insurance penetration, and a surge in the number of cars. Motor insurance accounts for 70% of total premiums, due to compulsory motor third-party liability insurance. The five largest players write 70% all of premiums and are followed by a long list of smaller firms, including regional players, subsidiaries, and joint ventures of foreign insurers.

However, the insurance industry finds itself at a juncture in its development. The rapid growth and competitive nature of the industry has led insurers to pursue top-line sales growth and market share, at the expense of profitability, underwriting discipline, and sustainability. Underlying risks need to be better understood, managed, and priced. Customer complaints, fraud, and mis-selling are running at a high level. Consumer and commercial demand will rebalance sales away from motor insurance towards broader product lines.

The China Insurance Regulatory Commission (CIRC) has been very active in recent years, releasing new regulations on insurance tariffs, investment strategy, asset classification, and mergers and acquisitions. These changes are being implemented as part of an overall plan to modernize, strengthen, and liberalize the industry. C-ROSS builds on these developments, and aims to bring the Chinese insurance industry to the forefront of international practices in risk and capital management.

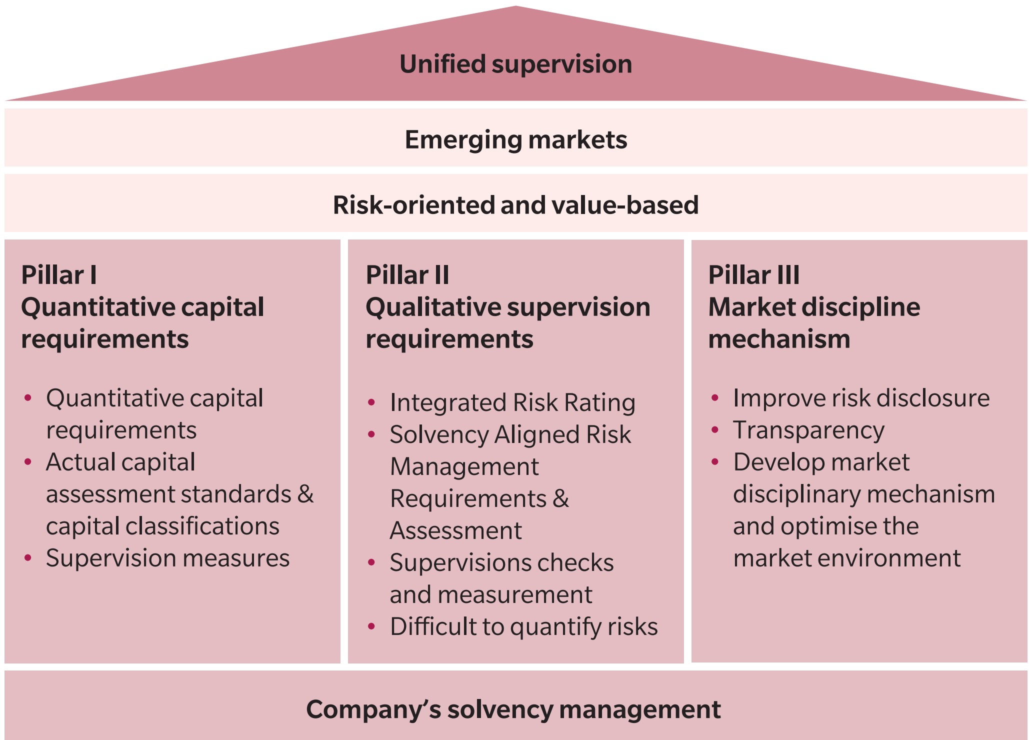
C-ROSS will require additional skills in the core technical areas of insurance – including risk, capital, pricing, underwriting, and investment management.

CHANGING SOLVENCY REGIME

The current "Insurance Company Solvency Regulations," established in 2008, set the Minimum Capital Requirement (MCR) as the greater of a percentage of the previous year's premiums, and a different percentage of the average claims experienced over the last three years. These high-level volume-based measures do not accurately reflect the underlying insurance, market, credit and operational risks being run by the industry. Quite naturally, risk and capital management techniques used by insurers in China have lagged recent worldwide developments. C-ROSS aims to introduce risk-based capital and improved risk management and governance. *C-ROSS covers a regulatory framework with three pillars, similar to Solvency II* (see Exhibit 1):

- *Pillar One* sets out quantitative requirements in the form of risk-based minimum capital requirements for insurance, market, and credit risk. These charges are substantially different from the past, and vary by risk. For example, the Motor business attracts a 7%-9% capital charge versus 25%-40% for Fire/Property (see Exhibit 2), while investment in Equities can attract a charge as high as 51.25% versus Real Estate at a maximum of 15%
- *Pillar Two* introduces two holistic new concepts, incorporating wider risks and governance. The Integrated Risk Rating (IRR) is the comprehensive score assigned to the company by the regulator, which includes not only the Pillar One quantitative calculation of capital required, but also an assessment of risks which CIRC believes are not amenable to quantitative methods, including operational, reputational, and liquidity risks. Solvency Aligned Risk Management Requirements and Assessment (SARMRA) refers to the governance structures an insurer needs to have in place and the regulator's evaluation of their effectiveness
- *Pillar Three* is intended to bring self-discipline to the insurance market by enhancing disclosure and opening up companies' capital adequacy to examination by investors, ratings agencies, and the general public. CIRC identifies five principles of information disclosure: adequacy, promptness, truthfulness, fairness, and cost-effectiveness (interpreted as centralized accessibility to all users)

Exhibit 1: C-ROSS framework



Source: CIRC, Oliver Wyman.

A striking change is in the area of Governance, where C-ROSS mandates the creation of an independent Chief Risk Officer (CRO) post that reports to the CIRC. Additionally, there are requirements for a Board-level Risk Committee, a formal risk function, and an in-house audit function. Together with ownership of risk by the business, this is akin to the "three line defence" model widely used by global financial institutions. C-ROSS instructs companies to include solvency and risk management as part of their training process and performance appraisals for all functional staff.

There are areas that require further clarification and ongoing improvement. For example, CIRC has not publicly disclosed the methodology behind the calibration of capital charges. This raises the possibility that the regulatory capital requirements for a certain risk or company may not be aligned with the actual risks being run by the company. The draft rules also do not take asset liability management (ALM) programs explicitly into account (except where investment positions are hedged using derivatives) and use book values rather than fair or economic values. For P&C companies with short-term liabilities this feature does not have a huge effect. But for long tail liability business, and particularly for life and savings business, it is crucial. We will have to wait until the Life regulations are released later in the year to see how CIRC handles this issue.

ANTICIPATED IMPACT ON THE INDUSTRY

We believe that the provisions of the new regulations, and of the "Solvency Aligned Risk Management Requirements" in particular, will result over time in industrywide adoption of enterprise risk management and risk-based capital concepts. This will have a positive effect on the stability and performance of insurers in China.

However, as in Europe and elsewhere in Asia, the transition is a multiyear journey. Achieving compliance with the draft regulations will require substantial investment in people, processes, and systems. Even more importantly, changes will be needed to management and governance practices to enable more risk-aware management and better decision making by the board.

All companies will need to upgrade their risk and capital management practices. CIRC is firmly committed to an industrywide upgrade, while pragmatically differentiating between large and established "Type 1" companies, which are encouraged to adopt C-ROSS in its entirety and proceed to develop their own Economic Capital Models, versus small or new "Type 2" companies, for which capital adequacy and good governance are the first priorities.

Larger and more diversified players are likely to benefit. The largest Chinese companies have been investing in risk and capital management, and are arguably better placed to fully implement C-ROSS. They are being encouraged to develop Economic Capital Models, and will be rewarded through lower capital requirements for diversification across business lines, asset exposures, and geographies. Having said that, CIRC may choose to designate certain large groups as Domestic Systematically Important Financial Institutions (D-SIFI's) and require them to hold an extra 5% more in capital.

Small, monoline, or undercapitalized insurers may need to raise fresh capital or consider strategic alternatives. For medium and smaller players, the transition to C-ROSS will be a significant undertaking in terms of money and effort. Firms that concentrate on single lines of business, or localized regions with high catastrophe risk (such as the East and Northwest), will be further disadvantaged. Some foreign and joint-venture companies, which have struggled to achieve critical mass at the national levels, may also reach a crossroads in terms of direction and ownership.

Consolidation is likely to accelerate. Stronger insurers will be able to expand through improved pricing of risk, selective M&A activities, back-book deals, or changes in distribution channels. Some weaker domestic and subscale foreign firms may choose to exit the insurance industry or reduce their equity stakes.

Over time, valuations will be affected by the quality of risk and capital management. We note that listed Chinese insurance companies currently trade at multiples similar to those of their foreign peers in the slower-growth markets of North America, Europe, and Japan. We believe that greater investor faith in risk management could result in the better-run companies being rewarded with improved ratings, lower financing costs, and the valuation multiples typical of a high growth industry.

Exhibit 2: Comparison of C-ROSS and Solvency II Insurance Risk charges

BUSINESS LINES	PREMIUM		RESERVE	
	Solvency II	C-ROSS	Solvency II	C-ROSS
Motor vehicle liability	29%	**9.3%-7.05%**	26%	**11.45%-7.84%**
Other motor	22%		22%	
Marine, aviation & transport (Cargo)	45%	**28%-24.6%**	32%	**63.2%-51.3%**
Fire/property	22%	**40.2%-25.6%**	29%	**64.1%-54.8%**
General liablity	42%	**14.5%-9%**	32%	**42.2%-35%**
Credit and suretyship	35%	46.7%-37.3%	60%	50.5%-40.2%
Legal expenses	19%		35%	
Assistance	26%		63%	
Miscellaneous financial loss	38%		63%	
Medical expenses	11%		29%	
Income protection	24%		42%	
Workers' compensation	15%		32%	
Health insurance		22.8%-11.5%		27.7%-18.2%
Agricultural		33.8%-18.9%		39.8%-27.8%

indicates that the capital charge may be increased by up to 10%, or decreased by up to 5% depending on the average combined ratio over the last three years. The motor charge may be further increased or decreased depending on whether the combined ratio has been increasing or decreasing.

indicates that the capital charge may be increased by up to 10% depending on the average reserve adequacy over the last three years.

Source: CIRC, EIOPA, Oliver Wyman.

Pricing and product mix will change, and new, low-cost providers may enter some lines. Capital requirements for motor insurance will fall under the new regime, which will lower the barriers to entry into this line of business. Together with the lifting of tariff restrictions, we expect this change to prompt existing and new players to experiment with different business models, such as using lean cost bases and digital distribution. More generally, we expect average prices on all product lines to change in line with the new capital requirements.

CHINESE CHARACTERISTICS

The following elements of the C-ROSS draft rules reflect the Chinese context:

- The stated goal of not constraining the insurance industry's development – CIRC must balance the need for higher capital requirements to protect current policyholders against the desire to expand this capital-intensive industry
- The quantitative elements of the regulations are simple and easy to apply for an industry with very limited actuarial resources
- CIRC has stated that the quantitative elements have been calibrated to the Chinese market (although so far, no details have been given)
- The focus on reputational risks, which is a large (and growing) issue in China
- The regulations stop short of dictating a full economic capital type model, and are instead laid on top of existing valuation methods. This again reflects resource constraints and a desire not to overburden a young industry

SEVEN IMPERATIVES
ACTIONS FOR CEO's, CFO's AND CRO's TO PREPARE FOR C-ROSS

C-ROSS is arguably the most important structural change to the Chinese insurance industry in over a decade. The leaders of insurers operating in China must prepare their companies, not just to be in compliance with the new regulations but also for a new era of risk-awareness and competition. We note seven actions for corporate leaders:

1. *Invest in more sophisticated risk and capital information systems*
2. *Revamp governance, and embed risk/capital considerations in management decision making.* In China, the Risk department has been seen as a compliance/reporting function, and hence as a cost center rather than a value-adding business partner. With the C-ROSS requirements for a CRO, board-level Risk Committee, and "three-lines of defence," insurers will need to bring risk and capital awareness into key management decisions, with the right supporting Management Information Systems (MIS) and governance processes. Key strategic decisions include choices regarding lines of business, products and pricing, and investment strategies. Critical financial decisions include capital allocation, dividend policies, and capital structures. For this to function in practice, each company will need to craft a clear and quantitative Board statement of Risk Appetite – e.g. the level of earnings and capital that can be put "at-risk" – and support that with a cascading set of Risk Limits that prevent undue or un-informed risk taking

Exhibit 3: Oliver Wyman Risk & Capital Management Framework for Insurers

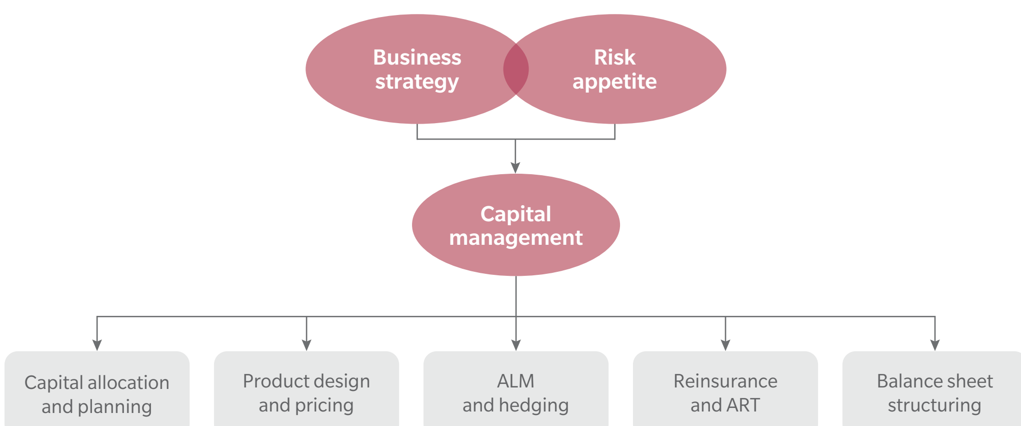
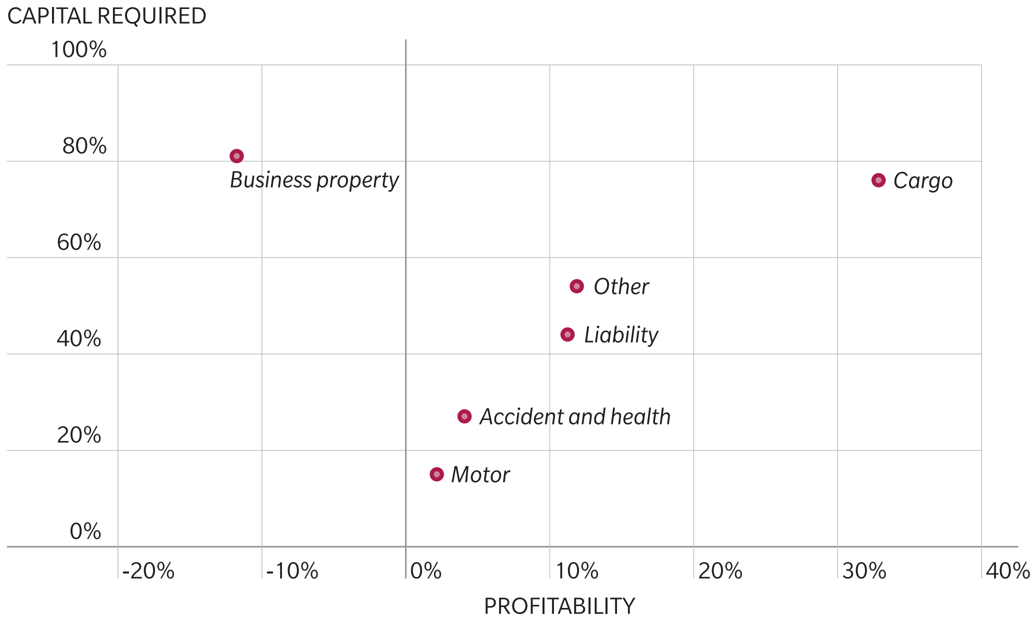


Exhibit 4: Projected Capital requirements vs. Profitability under C-ROSS



Source: Company results 2012, Oliver Wyman analysis

3. *Upgrade product management and pricing strategies.* We expect to see innovation in product design and pricing in response to the pressures of maintaining capital discipline. Products with high capital requirements will need to be re-priced, re-designed, or withdrawn. Pricing sophistication will grow as a combination of de-tariffing and C-ROSS-related changes drive capital-sensitive pricing, rating differentiation by geography and peril, and other such improvements. Firms will need to invest in improved underwriting, new underwriting systems, and "Big Data" technology to more accurately price individual risks, for example, in the Motor line

4. *De-risk the asset side of the balance sheet.* To date, insurers in China have tried to offset limited underwriting profitability by taking on riskier assets – such as equities and property – in a search for higher investment yield. C-ROSS penalizes excessive risk-taking on the balance sheet, by adding market and credit risk capital charges on top of insurance risk charges. Companies will need to take a close look at the risk-reward equation, versus capital charges, for different investment options. It is likely that insurers' balance sheets will shift quickly to "safer" asset categories. Those that make a conscious decision to stay in risky assets will broaden their investment portfolios and actively manage expected return according to their risk appetites

5. *Strengthen the reinsurance program.* C-ROSS adds capital surcharges for exposures to natural catastrophe risks. Demand for reinsurance could increase under C-ROSS, as it is a relatively easy way for insurers to manage both their capital requirements and geographic exposures. Increased demand may support a cyclical hardening of rates, which could trigger additional reinsurance capacity entering the market. Quota-share agreements are currently common, particularly for smaller insurers, and we expect excess-of-loss arrangements to become more common. Finally, on-shore reinsurance will generally be favoured, with a 0.1% capital charge versus 30% for arrangements with non-domiciled foreign reinsurers

6. *Increase focus on operational risk, including distribution channels.* The Chinese insurance market has some well-documented issues with mis-selling, customer satisfaction, and operational risk. The draft rules of C-ROSS address these issues by making reputational and operational risk part of the solvency and risk management framework. We believe that insurers will seek more control over the licencing and conduct of agents and brokers to mitigate these risks. Over time, contracts and compensation arrangements will need to be changed to encourage appropriate behaviour and client practices

7. *Upgrade organizational skills.* The cumulative weight of industry changes under C-ROSS will require additional skills in the core technical areas of insurance – including risk, capital, pricing, underwriting, and investment management. Additionally, management and boards may benefit from training to bring the technical changes into the "real-world" of business decision-making. Finally, rewards and remuneration will need to be adapted to reflect risk-adjusted performance metrics

CONCLUSION

C-ROSS is an ambitious project, aiming to equip Chinese insurers with a world-class regulatory regime, and to embed risk management into the industry's mind-set and practices. CIRC is pushing for fast implementation. The effects of this regulation will be wide, affecting every part of insurers' business, from sales and underwriting to claims management, customer relations and asset management. The risk is that C-ROSS is treated as an expensive compliance exercise, rather than as an opportunity to add value by embedding modern risk management techniques throughout the organisation. Insurers must get ready for a new world.

COMPARISON WITH EU SOLVENCY II

The Chinese insurance market is a young, high growth market as compared to the European Union (EU), which is generally considered to be a slow-growth market where an increase in sales by any one insurer is a zero sum game with the other players. The differences between these markets have led to CIRC diverging from Solvency II in several key areas:

- C-ROSS is holistic, including elements that would be considered under Treating Customers Fairly rules in EU. This reflects the fact that CIRC is a single regulator, whereas European regulation is fragmented
- C-ROSS has been developed without the horse-trading and political compromises which have characterized the development of Solvency II. As a result, the C-ROSS regulations have been developed faster and have stuck to the original vision
- CIRC retains a degree of discretion that would not be possible under EU rules, which again is reflective of the difference in the political systems
- The quantitative measurement method of C-ROSS (particularly on the asset side) is closer to Basel II than Solvency II in these draft rules. It will be interesting to see what changes are made for the life insurance rules, where asset liability management (ALM) is a key issue
- So far, we do not know how group capital will be treated under C-ROSS
- C-ROSS does not encourage or require internal models at this point. Although internal models were not required in Solvency II, significant sections of the industry decided to undertake large projects, the costs of which rapidly spiralled out of control. By not encouraging internal model development, CIRC hopes to keep the costs to the industry as low as possible. CIRC has expressed an interest in allowing larger insurers with the experience and resources to build internal models to eventually use them to assess capital requirements, but we do not see this happening in the short term
- CIRC has avoided the pitfall of mandating complex quantitative measurement of some categories of risk, which may not be amenable to such measurement (for example operational risk). In Solvency II, quantitative measurement is encouraged and has been embraced by some firms, but the results are often adjusted by applying human judgement, leading to an uneasy blend of spurious accuracy and qualitative opinion

In other respects the C-ROSS regulations are quite similar to Solvency II, for example, in the aggregation of capital requirements, tiering of capital, and risk modules considered. This is deliberate: in drafting C-ROSS, CIRC has actively examined risk-based capital supervisory regimes from around the world, selected what they consider to be the best elements, and adapted them to the Chinese market.

APPENDIX
OLIVER WYMAN EXPERIENCE AND CAPABILITIES IN THIS AREA

Oliver Wyman is a global leader in risk management consulting to the financial services industry. We have a long history in Asia-Pacific and have worked with many of the leading insurance companies in China. In Europe and the USA, we have worked extensively with regulatory bodies in developing the Solvency II and risk-based capital regimes, and supported clients in the insurance industry to frame their strategic and operational responses.

We have extensive global experience in building, reviewing, and accelerating implementation and application of risk and solvency management frameworks. Our deep content experience spans the financial services industry:

- Direct insurance and reinsurance, including Life, P&C and Health
- Retail, corporate, and investment banking
- Asset management

In the insurance sector, we have worked with clients in every aspect of the implementation and embedding of risk and solvency management frameworks, including:

- Framework definition and objectives
- Foundation phase, i.e. using existing technology and processes to identify quick-wins
- Roll-out and model build
- Management of the business through Economic Capital, including communication of results to external stakeholders
- Embedding Economic Capital into Risk Appetite, Risk/Return optimization (e.g. investment strategy, outwards reinsurance management, limit-setting, etc.) and strategic planning
- Organizational embedding, including defining the role, mandates, reporting needs, and agendas for the various risk committees and decision-making units within an organization

Through our experience, we have first-hand knowledge of best practices, the range of methodology issues, business applications, implementation approaches, and success factors for program management. There is no single "cookie-cutter" solution or implementation approach – our core expertise is working with clients to adapt risk and value concepts for their unique business context.

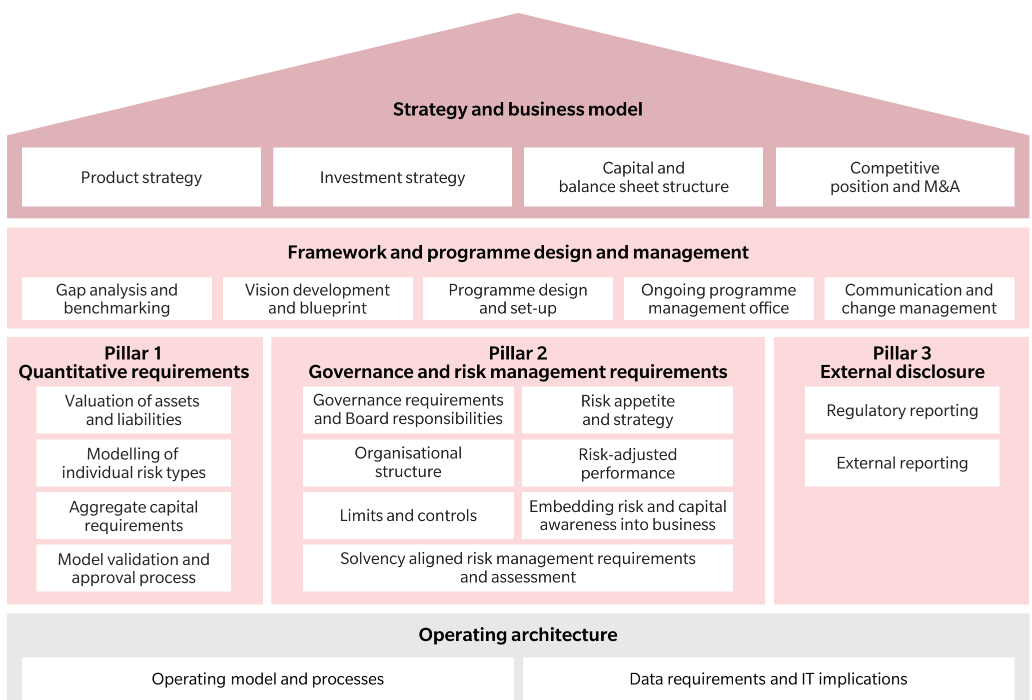
In Europe, we are currently supporting a range of insurers to prepare for Solvency II. In particular, we have helped our clients to embrace regulatory risk and solvency management requirements, ensuring that they extract full value from the process. We have also worked extensively with industry and EU bodies including the European Insurance Association (CEA), the CRO Forum, European Insurance and Occupational Pensions Association (EIOPA), and the Geneva Association.

In China, we have worked with several of the largest insurance companies. Recent risk and solvency related projects include:

- Supporting a leading local composite insurer to develop a risk strategy including risk appetite, modelling, contingency planning, and communication
- Advising a large local reinsurer on its strategic goals, including embedding of asset-liability modelling in the business

Elsewhere in the region, we have worked with many of the leading regional players and with the Asia-Pacific subsidiaries of multinational insurers.

Exhibit 5: Elements of C-ROSS readiness



Oliver Wyman is a global leader in management consulting that combines deep industry knowledge with specialised expertise in strategy, operations, risk management, and organisation transformation.

For more information please contact the marketing department by email at info-FS@oliverwyman.com or by phone at one of the following locations:

CHINA	HONG KONG	ASIA PACIFIC	EMEA	AMERICAS
+86 10 6533 4200	+852 2301 7500	+65 6510 9700	+44 20 7333 8333	+1 212 541 8100

AUTHORS' CONTACT INFO

Phil Joubert
Principal
+852 2301 7500
phil.joubert@oliverwyman.com

Cliff Sheng
Partner
+852 2301 7500
cliff.sheng@oliverwyman.com

Anupam Sahay
Partner
+65 6510 9700
anupam.sahay@oliverwyman.com

Anthony Bice
Partner
+61 2 8864 6555
anthony.bice@oliverwyman.com

ABOUT THE AUTHORS

Phil Joubert
Principal, Insurance Practice

Cliff Sheng
Partner and Head of Insurance Practice, China

Anupam Sahay
Partner and Head of Insurance Practice, Asia Pacific

Anthony Bice
Partner and Head of Insurance Practice, Australia

www.oliverwyman.com

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