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Risk-Based Capital Development in India

By Steven Chen and David Fishbaum

India has one of the largest markets in the world, with significant demographic advantages. The insurance sector has continued to grow in scale over the years. Total premium income has grown at a compound annual rate of 11 percent, with remarkable growth and development in the private sector (Figure 1). Life insurance accounts for about 75 percent of the total premium, reflecting the role played by life insurance in savings and investment markets. Growth rates in nonlife insurance have been consistently higher than those in life insurance. However, the insurance penetration rates remain low, especially in the nonlife market.

One unique characteristic of the Indian insurance market is that although private insurers are large in number, more than 65 percent of the market share, by premium income, comes from public sector insurers. Specifically, one of the state-owned insurers, Life Insurance Corporation of India (LIC), accounts for 55 percent of the total insurance premium of the entire Indian insurance market. Most private sector companies entered the market after 2001, when the market was reformed and opened. In recent years, most of the new entrants have been nonlife insurance companies. The limit on foreign investment in primary insurers has been raised from 26 percent to 49 percent.

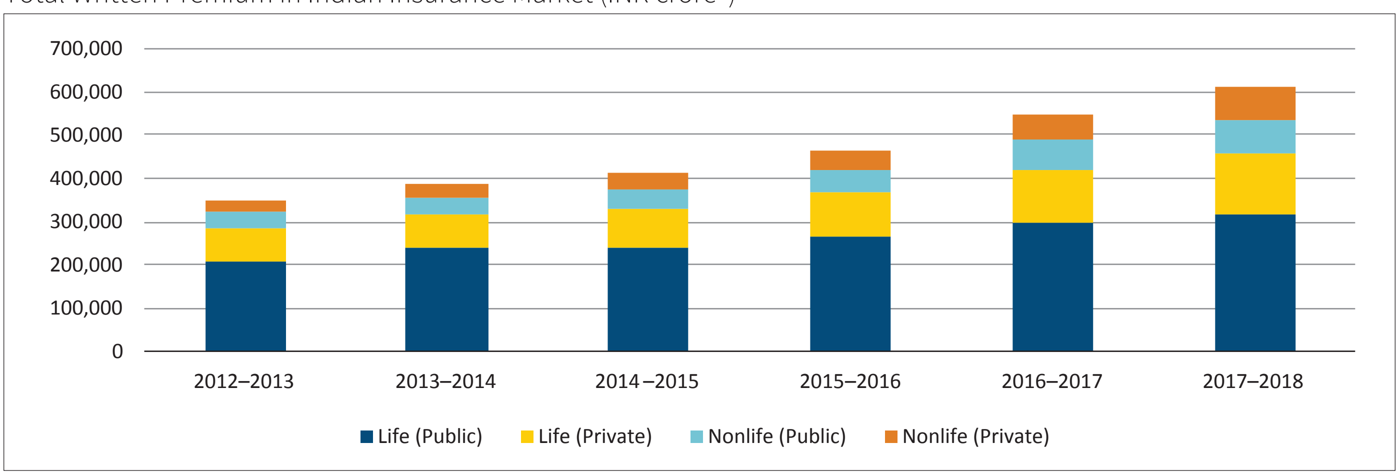
OVERVIEW OF RISK-BASED CAPITAL DEVELOPMENT IN INDIA

The current capital regime in India is essentially a "Solvency I" approach (Figure 2). Liabilities are also called mathematical reserves using a gross premium valuation approach. Actuarial assumptions are based on the expected experience and include a margin for adverse deviations. Valuation interest rates are based on prudent assessment of the yields from existing assets and future investments.

Required capital is a factor-based set of solvency requirements that move in line with business volume that is insensitive to risk. The required solvency margin equals a first factor times the mathematical reserves plus a second factor times the sum at risk. The two factors vary by business segments, products and guarantees, ranging between 0.8 percent and 3 percent for the reserve factor and between 0.1 percent and 0.3 percent for the sum at risk factor. There is also some allowance for reinsurance credits. The control level of solvency is set at 150 percent of the required solvency margin.

The current approach to capital requirement makes India an outlier in Asia and internationally. Most countries in Asia have adopted a more risk-based approach to capital requirement. For example, countries such as China and Singapore have recently updated to a risk-based solvency regime. Hong Kong is currently developing a risk-based capital (RBC) framework with the second Quantitative Impact Study (QIS) completed recently.

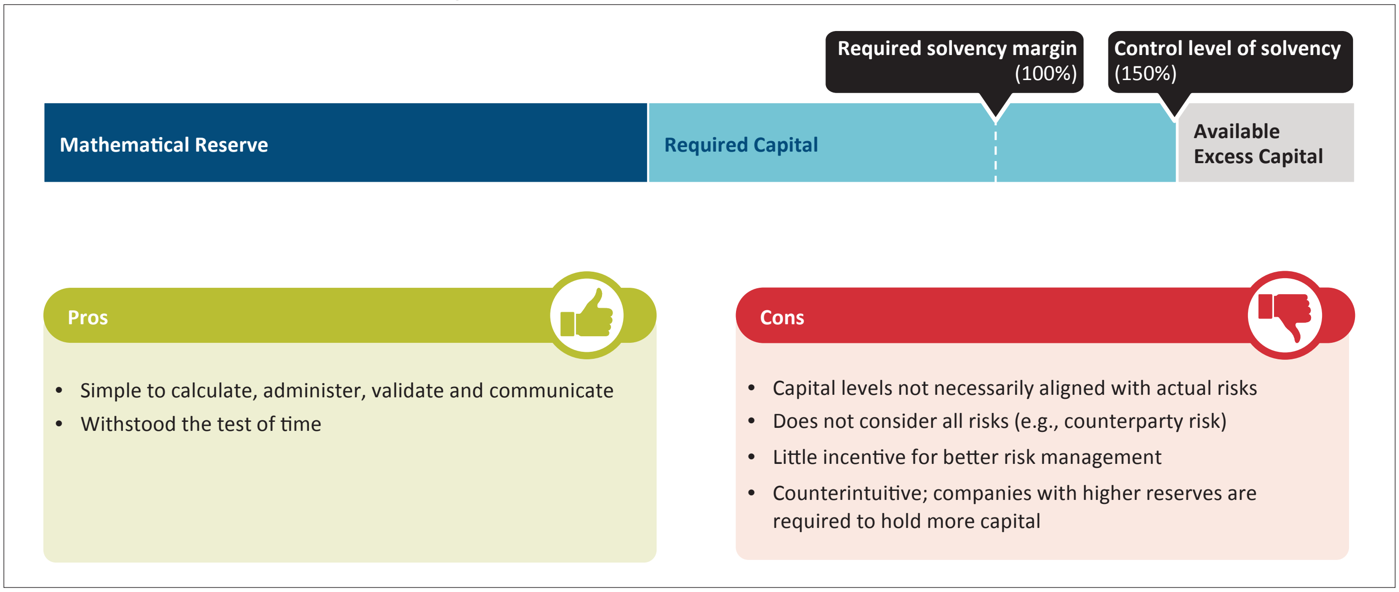
Figure 1
Total Written Premium in Indian Insurance Market (INR crore*)



Source: Insurance Regulatory and Development Authority of India (IRDAI) annual reports.

* A crore or koti denotes 10 million in the Indian numbering system.

Figure 2
Illustration of the Current Solvency Regime in India



Source: Report of IRDAI Committee on Risk-based Capital (RBC) Approach and Market Consistent Valuation of Liability (MCVL) of Indian Insurance Industry, Part II, July 2017; Oliver Wyman analysis.

In the recent assessment of Indian insurance sector regulation and supervision by the International Monetary Fund Financial Sector Assessment Program, one of the key recommendations is for the Indian insurance regulator to "formulate a strategy, plan, and timetable for modernization of the solvency framework as soon as possible."

While more countries are moving to a more risk-based capital framework, the Indian insurance industry is not all aligned with the future direction. Based on an industry survey,[1] some companies prefer the current factor-based approach because it is easy to calculate and administer. Further, it has been time tested and is working efficiently for all insurers.

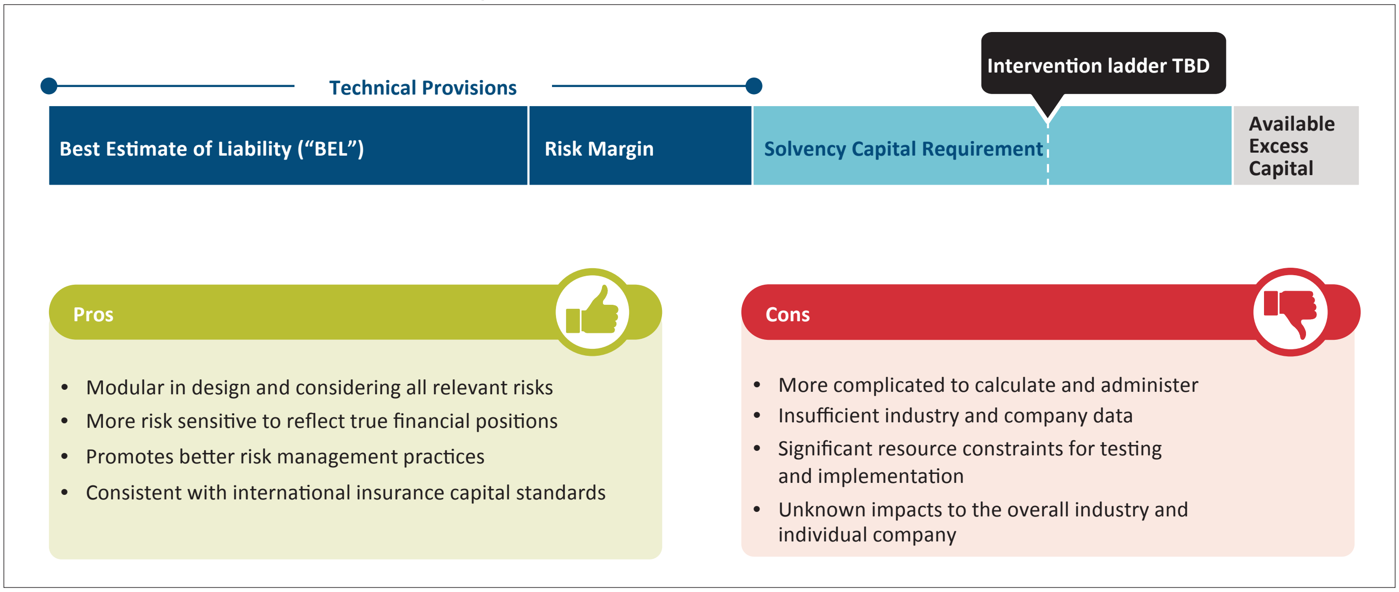
However, this current approach has some significant disadvantages. First, capital levels are not necessarily aligned with actual risk. Second, it does not consider all the risks. For example, counterparty default risk is not included. Third, there are few incentives for insurance companies to promote better risk management, as limited credits are available for risk mitigation actions. And last, the result can be counterintuitive because companies with higher reserves would be required to hold more capital.

In 2017, as part of the initiative to comprehensively update the solvency regime, the Indian regulator issued a report on RBC approach and market consistent valuation of liabilities (MCVL) of Indian insurance business. This report made some recommendations, at a macro level, about the potential framework for the new risk-based capital (Figure 3). Specifically, the report recommended that insurance liabilities would be valued on a consistent, economic value basis. The best estimate of liability corresponds to the probability-weighted average of future cash flows. An explicit risk margin is to capture the uncertainty of liability cash flows related to non-hedgeable risks using a cost-of-capital approach. The liability valuation would be consistent with IFRS 17, the new insurance accounting standard, in principle.

The solvency capital requirement would be based on a standardized approach, instead of an internal model approach. All risks, including credit risk, insurance risk, market risk and operational risk, would be covered at a high confidence level, likely a value-at-risk approach at 99.5 percent. Aggregation would also reflect the dependencies within risks and between risks. And the minimum capital target would be determined based on the results of the QIS. The basic solvency capital requirement, aggregating all risk components, would likely use a combination of factor-based and shock-based approaches. The parameters would be calibrated in the Indian context and should be refined during the QIS process.

There are several advantages for moving to a risk-based capital regime. To start, it is more risk sensitive and more consistent with international insurance capital standards.

Figure 3
Illustration of the Proposed Solvency Regime in India



Source: Report of IRDAI Committee on Risk-based Capital (RBC) Approach and Market Consistent Valuation of Liability (MCVL) of Indian Insurance Industry, Part II, July 2017; Oliver Wyman analysis.

Nevertheless, the Indian industry raised several concerns about the new regime. In particular, insufficient industry and company data will make required capital calibration difficult. In addition, implementing the new capital framework requires significant resources and most companies have only enough actuaries for business-as-usual activities. And last, there is the unknown risk about how the new regulation will shape the industry.

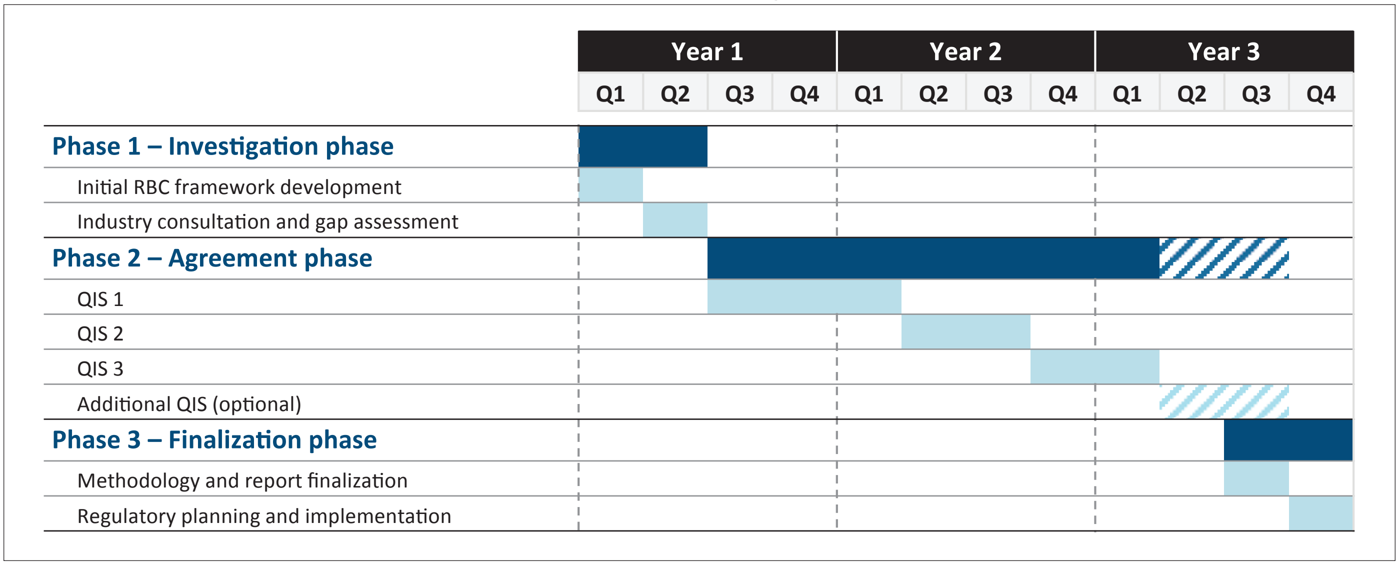
The regulator also proposed a three-year time frame for implementing the new RBC regime. It should be completed in three phases (Figure 4).

The first phase is called the investigation phase. This phase involves an initial RBC framework development, which would require a review of recommendations from several key committee reports. A benchmarking exercise to global and regional risk-based capital is also needed. The second task is to launch an industry consultation to get feedback and to assess gaps between the current regime and the future RBC regime.

The second phase is called the agreement phase. The agreement phase would have three QIS. Technical specifications and templates would be provided to all participants. The first QIS would likely take more time given it is the first attempt at sizing the industry. Subsequent QIS would allow the regulator to update and refine the design and parameters based on the QIS results and feedback from the industry.

The last phase is called the finalization phase. In this phase, the RBC methodology and calibration would be concluded. The regulator also needs to prepare the industry for transition. Certain regulation changes would be required. In addition, ongoing stakeholder management and communication with regulated entities would be required to ensure a smooth implementation process.

Figure 4
Tentative Implementation Timeline for the Risk-based Capital Regime



Source: Report of the Committee on Road Map for Risk Based Solvency Approach in Insurance Sector; Oliver Wyman analysis.

KEY DESIGN AND IMPLEMENTATION CONSIDERATIONS

Based on the proposed approach and timeline of the Indian RBC development, some key design and implementation issues should be considered.

- **Balance between conservatism and growth.** The Indian insurance industry is still in a growth phase. One of the missions of the regulator is to bring growth of the insurance industry and to provide long-term funds for the economy. For this reason, the risk-based capital should strike the appropriate balance between policyholder protection and growth. Given the unique characteristics of the Indian market, lifting risk-based capital standards entirely from peer jurisdictions and applying them directly to India will not be in the best interest of the industry in the long term.

- **Basis of calibration.** A value-at-risk approach based on a prescribed level of stress may be suitable, but the confidence level should be consistent with the levels reflected in peer jurisdictions and international capital standards. In addition, proper calibrations require historical data in sufficient volume and detail. However, such level of data may not be available in the Indian market. For certain risks, such as interest rate risk and credit risk, the calibration basis also needs to consider how the Reserve Bank of India sets capital requirements for banks and finance companies.

- **Public sector companies vs. private sector companies.** In general, it should be a level playing field where both public and private insurers are subject to the same regulatory requirements. However, public sector insurers are currently in an advantaged position. For example, LIC is under a special legislation, with an explicit government guarantee for all of its policies. In addition, financial weakness in some of the public sector nonlife insurers needs to be addressed. Two state-owned nonlife insurers have reported solvency ratios below the regulatory minimum. They could have difficulties meeting the minimum capital requirement under any new capital regime.

- **"Pillar 2" requirement.** Insurers should be required to develop their own risk and solvency assessment, in parallel with the risk-based capital. Setting a higher risk-sensitive capital requirement is not the goal; the goal is to ensure that risk-based capital would support enterprise risk so that companies become more proactive in managing the risk. From the regulator's perspective, the supervision approach and tools need to be upgraded from the current compliance-focused approach. Recently, the regulator sent a memo to all insurers about its intention to move to a risk-based supervision approach. A pilot program will be conducted on a few select insurers.

- **Timing and resources.** From a practical implementation perspective, the transition to an RBC regime is a multi-year journey. It is a significant undertaking that requires investment and resources from all stakeholders. Meanwhile, India is also in the process of implementing IFRS 17. Insurance companies are facing resource constraints and timeline pressure on the IFRS 17 implementation. Adding the RBC implementation could overwhelm most companies. Therefore, how to best leverage the two workstreams and create synergies is an important consideration as well.

CONCLUDING REMARKS

Designing and implementing a new risk-based capital regime is a significant undertaking. India has come a long way to develop an RBC framework. It was the first agenda item from the past two chairmen of the regulator when they took office, and it has continued to be active after they have left. Given the important nature and the potential sensitivity and ramifications around the initiative, careful considerations are warranted. As Gandhi once said, "You may never know what result comes from your action. But if you do nothing, there will be no result." With the right approach and support from all stakeholders, a robust risk-based capital regime will take the Indian insurance industry to the next level. ■

The views in this article represent only the authors' personal opinions. This article does not represent any statements from the organization where the authors are employed.

Steven Chen, FSA, CFA, FCIA, MAAA, is a principal of the Asia-Pacific Insurance Practice of Oliver Wyman. He can be reached at *steven.chen@oliverwyman.com*.

David Fishbaum, FSA, FCIA, MAAA, is the former managing partner of Oliver Wyman Actuarial Consulting. He can be reached at *david.fishbaum@oliverwyman.com*.

ENDNOTE

1 Report of IRDAI Committee on Risk-based Capital (RBC) Approach and Market Consistent Valuation of Liability (MCVL) of Indian Insurance Industry, Part II, July 2017.