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A Discussion of Canadian and U.S. Capital Adequacy Requirements

By Yi Zheng

I. INTRODUCTION

The solvency regulation of financial institutions is undergoing significant changes in many countries and regions around the world. The globalization and integration of financial services, ever increasing complexity of insurance and financial products, the need to level the playing field, increased protection to customers and significant advances in the theory and practice of modern risk management are among the reasons for the changes in solvency regulation.

This article demonstrates and explains the differences between the current Canadian and U.S. capital regimes on life insurance companies. The concept and framework of regulatory capital is first introduced and Canadian regulation capital requirements—minimum continuing capital and surplus requirements (MCCSR) and U.S. regulation capital-risk based capital (RBC)—is explained and compared.

II. CONCEPT AND FRAMEWORK

1. What is insurance company's capital?

- Equity of shareholders of a stock insurance company
- Measured by the difference between its assets minus its liabilities
- Protects the interests of the company's policy owners

Generally speaking, capital is wealth in the form of money or other assets owned by a person or organization, which is available or contributed for a particular purpose such as starting a company or investing. Insurance companies worldwide, just like financial institutions (e.g., banks), are covered by a regulatory capital framework. Capital regulations aim to protect policyholders and creditors; they ensure that insurance companies maintain healthy capital in order to fulfill their policy obligations.

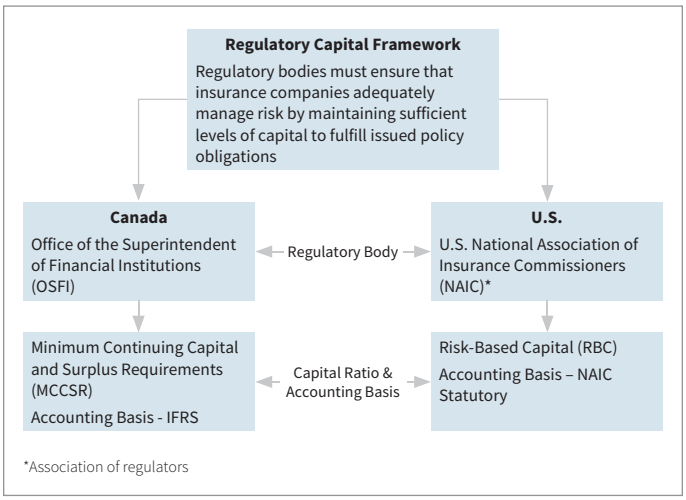
Canadian (MCCSR) and U.S. (RBC) regulatory capital is measured as a ratio:

$$\frac{\textit{available capital}}{\textit{required capital}}$$

Regulators require insurance companies to maintain specified levels of capital in order to continue to conduct business. While international discussions are driving some convergence in regulatory capital requirements around the world, there are still significant differences by countries.

This article focuses on Canadian and U.S. regulatory capital requirements with an emphasis on asset default risk.

2. Regulatory Capital Framework



III. MINIMUM CONTINUING CAPITAL AND SURPLUS REQUIREMENTS (MCCSR)

Available Capital	Required Capital
Based on IFRS Balance Sheet Capital Position	Based on explicit risk based requirements covering various types of risk (see below)
Tier 1: Core Capital Common equity Non-cumulative preferred shares Innovative instruments	**Asset Default and Market Risk:** Covers losses resulting from asset default and loss of market values of equities
Tier 2: 2A – Hybrid instruments 2B – Limited life instruments 2C – Other	**Insurance Risk:** Mortality, morbidity, and lapse risks
	Interest Rate Risk: Risk associated with asset depreciation arising from interest rate shifts

Available capital is comprised of two tiers:

Tier 1 (core capital) comprises the highest quality capital: e.g., common equity, perpetual non-cumulative preferred shares, certain innovative instruments. "Innovative Instrument" means an instrument issued by a special purpose vehicle (SPV), which is a consolidated non-operating entity whose primary purpose is to raise capital. A non-operating entity cannot have depositors or policyholders.

Tier 2 (supplementary capital) has three different grade levels (Tier 2A, 2B, 2C). Hybrid capital includes investments that are currently permanent in nature and that have certain characteristics of both equity and debt; Limited life instruments are not permanent and include subordinated term debt and term preferred shares; and other capital items.

Required capital is based on explicit risk based requirements covering various three major risks: asset default and market risk, insurance risk, and interest rate risk.

- **Investment returns (equity and interest rates):** assumptions are made about the rate at which future premiums will be invested and actual returns could fall below expectations. As well, for the annuities business, return assumptions are factored in, and actual returns could fall below expectations.
- **Credit:** life insurance companies are large investors in bonds, real estate, mortgages, etc., and while actuarial liabilities include an assumption for credit losses, actual experience could trend above expectations.
- **Mortality:** life insurance companies assume a certain level of individual death when setting up reserves (based on mortality tables) and actual experience could be worse. It is noted that for life insurance, higher mortality rates are bad, but for life payout annuity businesses, higher mortality rates are actually good for earnings.
- **Lapse:** life insurance companies assume that a certain percentage of policyholders stop paying premiums and let their policies terminate. When this occurs, under most circumstances, proceeds already paid are no longer required to back the terminated policy, and are used to support other policies. There could be fewer terminations than assumed and therefore less residual funds.

IV. RISK BASED CAPITAL (RBC)

1. RBC Application

The risk-based capital (RBC) ratio is used to evaluate the capital adequacy of insurance businesses in the U.S. by the National Association of Insurance Commissioners (NAIC).

- NAIC statutory reporting basis is used
- RBC measures the ratio of available capital to required capital
- RBC is calculated for all U.S. insurance companies
- The confidential calculation is filed annually with the state of domicile
- RBC is filed annually with the state of domicile

2. Risks Covered by Risk-Based Capital

- Asset Risk—Affiliates (C0): represents the risk of default on assets for affiliated investments and risk on off-balance sheet items, including non-controlled assets and guarantees on affiliates and contingent liabilities.
- Asset Risk—Other (C1): measures the potential for default of principal and interest or fluctuation in fair value of assets as well as concentration risk.
- Insurance Risk (C2): covers the possibility that policyholder premiums or reserves turn out to be insufficient to meet obligations.
- Interest and Market Risk (C3): measures risks associated with changes in interest rates as well as risk of losses due to changes in market levels associated with variable annuity products with guarantees.
- Business Risk (C4): based upon premium income, annuity considerations and separate account liabilities; also included in exposure is litigation and certain accident and health coverage.

3. Regulatory Action

The authorized control level is set at 200 percent. If not, here are some of the regulatory actions they may take.

% of Authorized Control Level RBC*	Regulatory Action	What This Means
>200%	No Action	Passed. No Action Required
150%–200%	Company Action Level	Company required to submit plan for corrective actions
100%–150%	Regulatory Action Level	Commissioner requires a corrective plan, performs examinations, and issues corrective orders
70%–100%	Authorized Control Level	Commissioner authorized to take all regulatory action to protect interest of policyholders and creditors
<70%	Mandatory Control Level	Commissioner authorized to put company under regulatory control

At the company action level, the plan could include adding capital, purchasing reinsurance, reducing the amount of insurance written, or pursuing a merger or acquisition.

Regulators are given the ability to react quickly and legal authority to intervene in the business affairs of an insurer that triggers one of the action levels.

V. CONCLUSION

In this article, the regulatory capital requirements under current Canadian and U.S. regulatory regimes are explained and compared. In Canada, public insurance companies use International Financial Reporting Standard (IFRS) which is based on economic valuation principle. In U.S., NAIC statutory accounting basis is used which focuses on tail factors impact. Better understanding of these two regimes will help insurance companies establish a better framework on capital risk management and increase the efficiency and effectiveness of business. ■

Yi Zheng, PRM, is a portfolio modeling analyst at John Hancock. He can be reached at *yizhengpost@gmail.com*.

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