

## Risk Based Capital Standard

Risk-based capital requirement refers to a rule that establishes minimum regulatory capital for financial institutions. Risk-based capital requirements exist to protect financial firms, their investors, their clients and the economy as a whole. These requirements ensure that each financial institution has enough capital on hand to sustain operating losses while maintaining a safe and efficient market.

Risk-Based Capital (RBC) is a method of measuring the minimum amount of capital appropriate for a reporting entity to support its overall business operations in consideration of its size and risk profile. RBC limits the amount of risk a company can take. It requires a company with a higher amount of risk to hold a higher amount of capital. Capital provides a cushion to a company against insolvency. RBC is intended to be a minimum regulatory capital standard and not necessarily the full amount of capital that an insurer would want to hold to meet its safety and competitive objectives. In addition, RBC is not designed to be used as a stand-alone tool in determining financial solvency of an insurance company; rather it is one of the tools that give regulators legal authority to take control of an insurance company.

## Application of Capital Adequacy



The capital adequacy ratio (CAR) is a measurement of a bank's available capital expressed as a percentage of a bank's risk-weighted credit exposures. The capital adequacy ratio, also known as capital-to-risk weighted assets ratio (CRAR), is used to protect depositors and promote the stability and efficiency of financial systems around the world. Two types of capital are measured: tier-1 capital, which can absorb losses without a bank being required to cease trading, and tier-2 capital, which can absorb losses in the event of a winding-up and so provides a lesser degree of protection to depositors.

Capital Adequacy Ratio (CAR) is the ratio of a bank's capital in relation to its risk weighted assets and current liabilities. It is decided by central banks and bank regulators to prevent commercial banks from taking excess leverage and becoming insolvent in the process.

### **Historical development**

Basel is a city in Switzerland. In 1974, all G-10 countries' Central Bank Governors met in Basel in order to see how banking could be improved through a common guidance. Various policies were developed since then, but the most important one became operational in 1988 which is called Basel I Capital Accord. Basel II Capital Accord was later developed in 2006 after series of revisions. Basel II is actually the basis of Capital Adequacy for all banks. Later, improvements were added and Basel III came up in 2010 and all Central (Reserve) Banks around the world are expected to implement the changes between 2013 and 2015 in their respective countries. However, an extension was granted for full convergence till 31<sup>st</sup> March 2019.

### **Calculating CAR**

The capital adequacy ratio is calculated by dividing a bank's capital by its risk-weighted assets. The capital used to calculate the capital adequacy ratio is divided into two tiers.

$$\text{CAR} = \frac{\text{Tier 1 Capital} + \text{Tier 2 Capital}}{\text{Risk Weighted Assets (RWA)}}$$

#### **Tier-1 Capital**

Tier-1 capital, or core capital, consists of equity capital, ordinary share capital, intangible assets and audited revenue reserves. Tier-1 capital is used to absorb losses and does not require a bank to cease operations. Tier-1 capital is the capital that is permanently and easily available to cushion losses suffered by a bank without it being required to stop operating. A good example of a bank's tier one capital is its ordinary share capital.

#### **Tier-2 Capital**

Tier-2 capital comprises unaudited retained earnings, unaudited reserves and general loss reserves. This capital absorbs losses in the event of a company winding up or liquidating. Tier-2 capital is the one that cushions losses in case the bank is winding up, so it provides a lesser degree of protection to depositors and creditors. It is used to absorb losses if a bank loses all its Tier-1 capital.

The two capital tiers are added together and divided by risk-weighted assets to calculate a bank's capital adequacy ratio. Risk-weighted assets are calculated by looking at a bank's loans, evaluating the risk and then assigning a weight. When measuring credit exposures, adjustments are made to the value of assets listed on a lender's balance sheet.

All of the loans the bank has issued are weighted based on their degree of credit risk. For example, loans issued to the government are weighted at 0.0%, while those given to individuals are assigned a weighted score of 100.0%.

### **Risk-Weighted Assets**

Risk-weighted assets are used to determine the minimum amount of capital that must be held by banks and other institutions to reduce the risk of insolvency. The capital requirement is based on a risk assessment for each type of bank asset. For example, a loan that is secured by a letter of credit is considered to be riskier and requires more capital than a mortgage loan that is secured with collateral.

### **Why Do Banks Fail or Collapse?**

From the aforementioned, you will see that for the bank to fail, its capital will be less than the 8% set. In other words, the following could lead to the results of its CAR being less than 8%: –

1. **High defaults on its loans:** many banks take more than expected risk by lending to clients and sectors that are considered risky. In other words, they are not able to recover their loans leading to higher provision for loan losses and later write off of those loans. When this happens, its capital adequacy drops to a lower level as its capital has eroded by these write offs.
2. **Diversion of clients' deposits:** the majority of the financial institutions are in the habit of diverting clients' deposits into other long term fixed assets. You will see that most of the financial institutions have a construction or property development subsidiaries. Clients deposits are used to finance those projects. Now when the clients come to demand their deposits, they do not have the cash available since it is locked up in the property development project.
3. **High Operating Costs:** the majority of the financial institutions hire a number of staffs that are not productive. To demonstrate that they are doing well, much money is invested into advertising, uniforms, branding and image building. At long last, these all lead to high operating costs that eat up the profit and later eat up clients' deposits as in 2 above.
4. **High staff turnover:** most experienced hands often resign and go to other financial institutions. There is a loss of institutional memory and procedures and policies are not followed as it should be.

### **Limitations of CAR**

One limitation of the CAR is that it fails to account for expected losses during a bank run or financial crisis that can distort a bank's capital and cost of capital.

Many analysts and bank executives consider the economic capital measure to be a more accurate and reliable assessment of a bank's financial soundness and risk exposure than the capital adequacy ratio.

The calculation of economic capital, which estimates the amount of capital a bank needs to have on hand to ensure its ability to handle its current outstanding risk, is based on the bank's financial health, credit rating, expected losses and confidence level of solvency. By including such economic realities as expected losses, this measurement is thought to represent a more realistic appraisal of a bank's actual financial health and risk level.

### **What will the Central Bank do if the financial institution is under distress?**

The central bank would come with a number of suggestions to the financial institutions. It shall actually give it a deadline to address its capital adequacy issues or face revocation of its banking license.

The following are done by the Central Bank: –

1. Ask the Board of Directors of the bank to increase its capital base in order to absorb the losses quickly. This could be done with injection of fresh capital which may mean taking a new strategic partner(s) if the existing shareholders cannot inject more capital.
2. Without 1 above, the smoothest process is to allow another bank, which is more liquid and is of good standing, to take over the bank which is in distress. An example is what happened in Ghana in early August 2017 where two banks were taken over by the oldest commercial bank in that country.
3. The bank could also be liquidated completely by appointing an official liquidator. The liquidator will sell the liquidating banks' assets in order to defray the losses incurred. This last option normally causes hardships to depositors who will have to wait for all assets of the bank to be sold before they get their deposits back.

### **Conclusion**

Banks should concentrate on their core mandate instead of diverting clients' deposits into constructions, property developments, and fixed assets acquisitions. They should also stop the flamboyant lifestyles as displayed by many of the Banks and Savings & Loans in countries I was permitted to work. By this, they will be able to maintain a good capital adequacy ratio and continue to be in business.