

First Volume -

What is Risk Appetite Framework?

Post-crisis risk management revolution—Risk Appetite Framework (RAF)

'When business strategy and risk management meet'

"Enterprise risk"
July, 2014

1. What is risk appetite framework

The term "Risk Appetite Framework (RAF)" may not yet be widely recognized in the risk management community of general corporation but this is now rapidly transforming the risk management of large financial institutions around the world. This series will address various questions regarding RAF: what exactly is RAF; why are financial institutions focusing on RAF; what are the benefits of RAF from the perspective of corporate governance and risk management; what are some common issues with RAF, etc. As the first article of this series, this article will overview the concept of RAF, then cover the background behind the recent increase in regulatory attention to RAF and highlight some key features compared to traditional risk management.

In simple terms, RAF is a framework to determine and control the firm's risk appetite. Risk appetite is "the aggregate level and type of risk a firm is willing to assume within its risk capacity to achieve its strategic objectives and business plan." In other words, risk appetite is the risk that the organization or the management is taking to meet its business objectives. Based on this definition, RAF is a framework that board members and senior managers: 1) Set the risk appetite while taking into consideration various stakeholders' expectations such as shareholders and regulators, and confirms that it is confined within the expected range; and 2) Permeates the risk appetite from the top management level throughout the organization down to the front business lines.

2. Background on why RAF become so increasingly important

Risk management in large financial institutions has generally been said to be well advanced compared to other industries. One reason for this is that regulators have continuously been demanding high level of risk management to financial institutions as a return for deposit insurance and also their crucial function as a social infrastructure. Simultaneously, regulators have demanded financial institutions to measure major risks and hold capital against them to confirm that they have sufficient financial buffer. They are often called capital adequacy regulation, and the most representative one in global area had been Basel Accord. Particularly, since Basel Accord II (hereafter, simply called Basel II) was introduced from 2006, measurement of credit risk that captures the obligors' default risk and operational risk that accounts for risks relating to losses from operational accidents and frauds have become necessary in addition to the measurement of market risk, which captures risks in market price movements. As a specific example for credit risk, financial institutions need to accurately measure risk amount by estimating the default rate and the recovery rate at default for each of its obligors or projects. Also, for operational risks that have been previously regarded as very hard to measure, financial institutions need to measure risk amount by collecting and categorizing losses by the event and business types of accident, and modeling based on loss distribution and frequency.

As such, for large financial institutions, a detailed radar system to identify signs of dangers (risk measurement) and breakwaters to guard against them (risk-weighted capital requirement) have already been developed by 2006. Despite this, however, deep financial crisis originating from the US and Europe struck immediately the world financial system and economy afterwards. Very natural question posed by regulators facing this crisis was "how could this have happened?"

One possible reason is the limited "scope of risk" considered in traditional risk management. In reality, traditional risk management at financial institutions (for confirming the capital adequacy) mainly considered risks that are easy to measure or risks that are difficult to measure but were strongly demanded by regulators to monitor. For instance, currently market risk and credit risk are the main risks that financial institutions need to capture and control. These risks are relatively easy to measure as their methodologies are already established and data relating to the risk factors have already been accumulated. In contrast, method for measuring operational risk has yet to be widely established mainly due to the lack of consensus on the measurement method and paucity of data. But regulators believe that financial institutions need to grasp operational risk in some way considering its significance, and therefore financial institutions have followed by capturing this risk in some way.

Meanwhile, risks that regulations did not place much emphasis on became the source of enormous losses and failures of large institutions in the recent global financial crisis, such as counterparty risk (a type of credit risk that refers to the risk of loss arising from the default of a counterparty in market transaction), risk associated with securitized products (fall in prices or default of securitized products) and liquidity risk (risk from constrained funding or plunge in prices due to fall in market liquidity). This means that no matter how well the advanced the radar may be, if there is limitation on what can be detected (risk type), the defense system can be easily breached by a stealth object. Regarding Basel III and other regulations, which have been newly introduced after the crisis, risks materialized during the financial crisis have been covered but there are criticisms that these regulations are only fighting the "lost war".

In addition to the above factors, there was also a problem with the “precision of the radar.” In traditional risk measurement, Value at Risk (VaR) method is widely used. This is a stochastic method of calculating the loss amount based on a certain probability (say, once in a 100 years) based on the historical movement of the risk factor. However, this methodology is considered “backward looking” as it only considers relatively recent historical data. For example, calculation of risk using the historical data of the past ten years assumes only the same external environment of that period and is not able to capture the risk that arises when the external environment changes significantly. In reality, some losses in market transactions during the recent global financial crisis far exceeded the level that was considered once in ten thousand years.

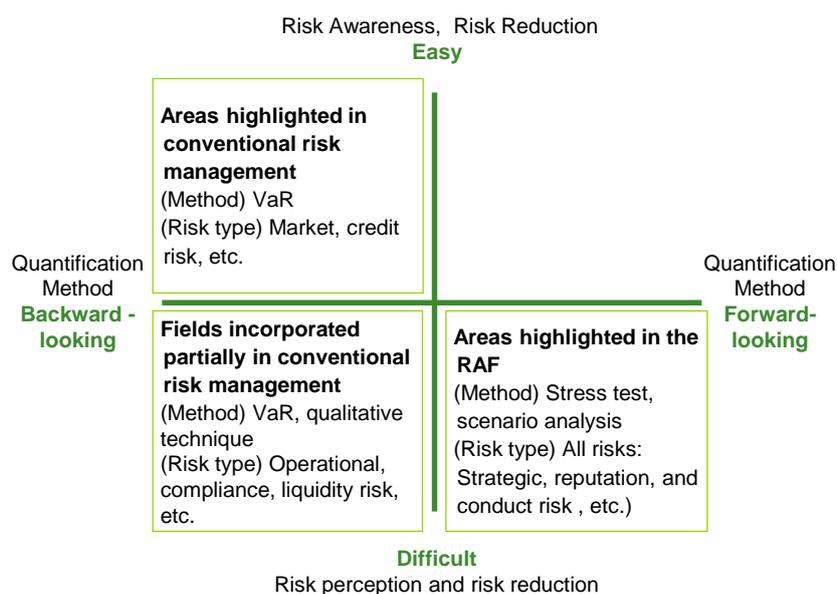
3. Regulatory request to develop RAF

From the lessons learned from the global financial crisis as mentioned previously, regulators are demanding financial institutions to develop and enhance their RAF. This is because RAF has two major features that allow it to address the problems mentioned above.

The first is the scope of risks covered. RAF takes all major risks into account including those that are difficult to measure. In the traditional risk management, there are many risks that were recognized as important but were not taken into account because of their difficulty measuring. For example, they are “strategic risk” that focuses on possibility of the failure of a firm’s business strategy, “reputational risk” which is materialized when a firm’s reputation is suddenly tarnished and “conduct risk” that focuses on unfair behaviors of financial institutions from the viewpoints of their customers or counterparties in the market. RAF considers all these risks as important risks in the same way as market and credit risks. In this sense, the process to identify significant risk categories based on the firm’s risk profile instead of just stopping at grasping the predetermined risk categories is important in RAF. This point is deeply related to the second major feature.

The second major feature of RAF is that it captures major risk categories and risk amount in a “forward-looking” manner. In other words, scenario that forecasts possible risks that could actually materialize in the near future is logically developed based on an analysis of the current environment instead of forecasting future risks based on statistical view on past data. To accomplish this, it is imperative that an organization captures its risks’ source while considering its “appetite” or “motive” for risk-taking. Needless to say, corporations take risks to create values that are demanded by their stakeholders, such as stockholders. With this in mind, risks that corporations face are deeply rooted in the business strategy, which is how corporations create what kind of values. RAF is a framework that makes capturing of risks in a forward looking manner possible by considering the risks arising from the corporates’ efforts to satisfy the expectation of stakeholders, and also considering the possible near term changes in the external environment.

Exhibition1. The features to apprehend risks in RAF



4.RAF revolutionizes corporate governance and risk management

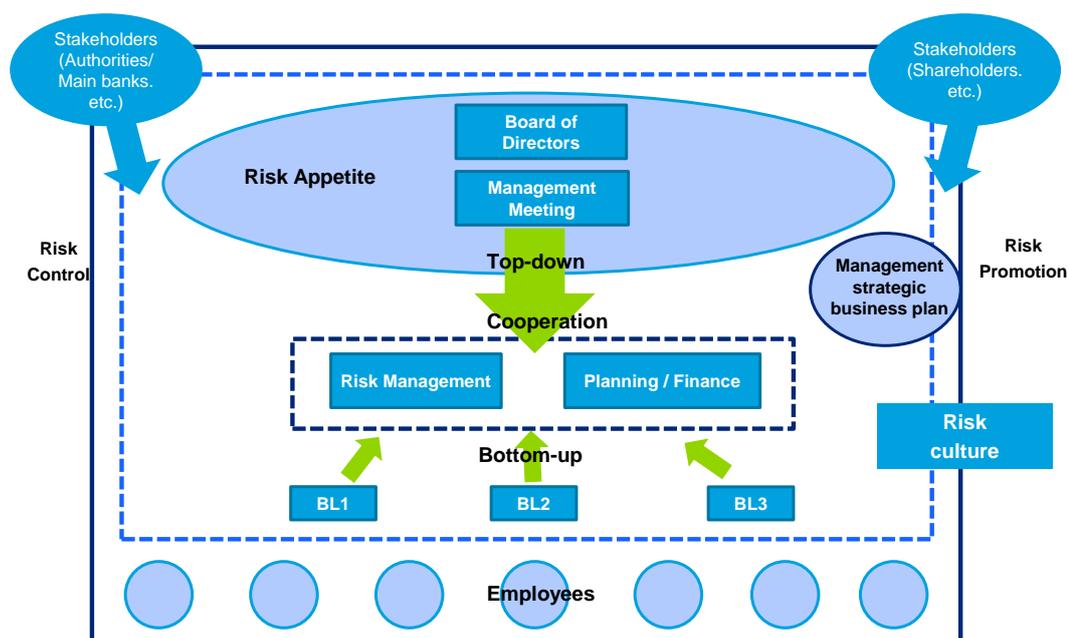
As previously stated, RAF has gone into the limelight as a method to reinforce weaknesses in the financial institutions' risk management that was unveiled by the global financial crisis. However, the strength of RAF is not necessarily limited to effectively addressing issues surfaced by the global financial crisis. As a matter of fact, the primary characteristic of RAF is that it could revolutionize corporate governance and risk management. In particular, the following two points can be important.

A) **RAF visualizes the management's decision making process for internal and external third parties**

As previously mentioned, risks that corporations face are intrinsic to the business strategy itself. The development of business strategy must be complemented by discussions over the strategy's hidden potential risks. RAF is a "transparent" framework that clarifies how top management identifies the risks in its business strategy, assesses whether they can accept them or not, and control them so as to confine within their limits. The emphasis placed on "transparency" because RAF standardizes this process and "visualizes" the management's decision making process.

In reality, this point has proven to be a great challenge for many financial institutions implementing RAF. This means that in many cases, the management does not want its decision making process to be exposed to external parties. However, with recent demands to enhance governance increasing, sharing of the management's decision making process to only a handful of people at the senior level is a thing of the past. Visualization of the management's decision making process from the perspective of shareholders and other major stakeholders, as well as clarifying who is leading the particular risk taking activity and who has agreed/disagreed will enhance individual accountability of the top management. In this sense, RAF is the ultimate way of strengthening governance. This should be particularly appealing to foreign investors who are skeptical of Japanese companies' decision making process.

Exhibition 2. Transparent Strategy Decision Making Process Seek by RAF

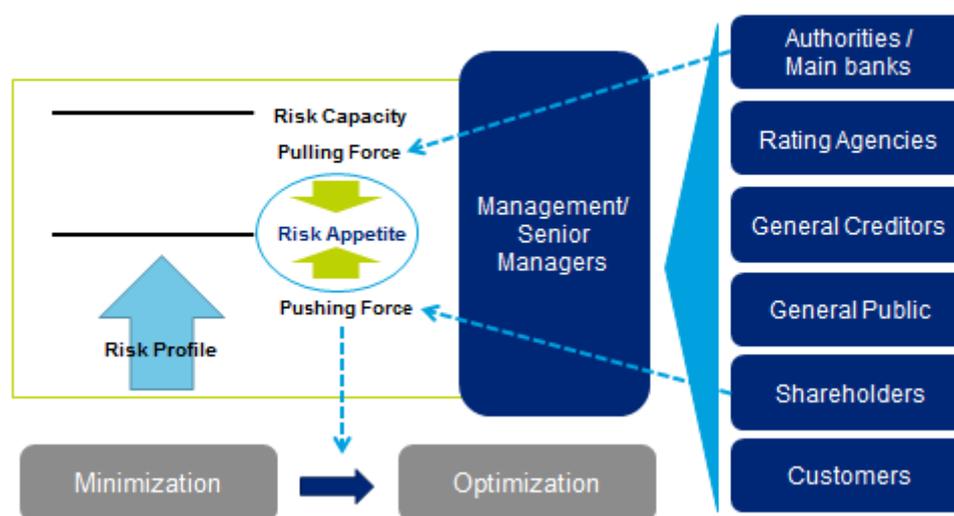


- B) **RAF assesses risks in the trade-off relationship and thereby prevents incomplete evaluation**
 Traditional risk management (particularly for financial institutions) was designed to restrain risk. At least towards regulators, risk management's important component was to restrain risks within a certain limit and report to the regulators (or for risks that are difficult to measure, tolerate no risk), which would be followed by the regulators' acknowledgement. In this world, naturally, corporations (financial institutions) would be incentivized to narrow the scope of its risks or underestimate them.

In contrast, RAF enables the assessment of risk appetite in a "comparative" standard by not only awarding its minimization in favor of regulators but also its optimization in favor of shareholders. This

means that corporations (financial institutions) will not be able to get away with saying that “we are minimizing our risk taking.” Corporations must be able to explain how they are balancing their risk appetites to simultaneously satisfy its shareholders, regulators and credit rating agencies (or the lending bank in the case of non-financial firms). Obviously, the explanations to all parties must be consistent. As such, RAF visualizes the essence of risks that is being taken by displaying this risk taking activity as a result of balancing different expectation of various stakeholders.

Exhibition 3. Optimize risks within a trade-off relationship



5.RAF in practice and its challenges

As stated earlier, RAF could potentially revolutionize corporate governance and risk management. However, even in the financial industry where regulators are strongly encouraging the implementation of RAF, much more still needs to be done. There are four main reasons for this: first, the concept of RAF is complex and difficult to understand (especially for the management); second, there is a strong resistance against increasing transparency of the decision making process; third, the culture among risk management and business planning/treasury divisions are different and cooperation among them that is necessary for RAF implementation is difficult; and fourth, there are technical challenges in RAF operation regarding consideration and measurement of non-financial risks, as well as controlling those risks.

In the following series, how corporations can develop and operate RAF will be explained in detail, including ways to overcome those challenges. Below is an overview of the process to develop and operate RAF:

- A) Identify major stakeholders' expectations (shareholders, regulators/credit rating agencies/main banks, customers, general public, etc.)
- B) Determine and review RAF's risk scope
- C) Determine and review RA indicators (strategic level) based on A) and B) above
- D) Set and review the level of RA for each indicator (strategic level) based on A)
- E) Measure and confirm the current profile of risks determined in B)
- F) Verify whether risks measured in E) is consistent with the risk appetite set in D) and revise business plan if inconsistent
- G) Cascade the strategic level RA indicators down to tactical and operational levels
- H) Monitor risk profile and execute remediation measures when the actual risk level approaches or exceeds the risk appetite limit
- I) Develop and review performance evaluation system based on risk appetite and conduct evaluations based on this system

Next issue will cover the grasping of stakeholders' expectations and consideration of RAF's risk scope, which requires decision making in the early phase of RAF development process.

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