Developing an Operational Risk Appetite: Turning a "black art" into practical reality

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Defining appetite for the operational risk category continues to be a particular challenge for many organisations, compared to the much longer established disciplines of credit and market risk, and is still considered by many to be something akin to a mysterious "black art."

Indeed, the comments contained in the report published on the FSA website from the Senior Supervisors Group – *"Observations on developments in risk appetite frameworks and IT infrastructure"* – 23rd December 2010 (the "SSG Report") strongly suggest that, whilst planned improvements in approaches to formulating risk appetite are in progress in many firms, it is still unclear as to whether these practices will be sufficiently resilient in an increasingly competitive and changing regulatory environment. For that reason, developments in risk appetite will require continued review by firms and supervisors alike.

The purpose of this practice note is to take the reader on a brief tour of the subject of operational risk appetite development. It commences with a look at the definition of risk appetite; examines the key challenges faced by the numerous stakeholders involved; looks at some of the different ways in which operational risk appetite can be expressed and; finishes off by considering how it can be used as a practical decision making tool by senior management in the day-to-day running of their business.

Defining Risk Appetite

Definitions of risk appetite vary and not all practitioners adopt the BS31100 definition of '"*the amount and type of risk that an organisation is prepared to seek, accept or tolerate"*. Indeed, some organisations prefer to make a distinction between risk tolerance (maximum risk that can be taken before financial distress) and risk appetite (the amount of risk that is actually taken for reward).

A typical definition of risk appetite is as follows:

"The risk of loss that a firm is willing to accept for a given risk-reward ratio [over a specified time horizon at a given level of confidence]"

The clause in square brackets gives more precision and is often included in definitions of risk appetite by more sophisticated firms which are further down the road of risk modelling. Clearly, this broad definition is as applicable to operational risk as it is to other types of risk.

Trying to write a similar definition for operational risk appetite is more difficult, although one approach is to look at individual loss categories and write statements covering these.

The traditional view of risk appetite – i.e. that it should be a hard number and that it should be limit based – is not appropriate for operational risk. Many operational risks are unavoidable and, even if an appetite for loss is agreed, it will be exceeded, despite the controls and other mitigants which are in place.

A more intelligent view of operational risk appetite recognises that, whilst there are different ways of mitigating operational risk, thresholds and targets are more relevant to operational risk appetite and not hard limits.

In our experience, the most common uses of risk appetite statements are for: input into strategy development and strategic decision-making, risk financing/insurance decisions and setting boundaries for business risk taking.

Risk appetite statements tend to be created in order to improve Board risk oversight and risk governance or to communicate expectations for risk-taking to managers and/or the Board of Directors.

Risk Appetite and Risk Tolerance

Some firms also seek to differentiate between operational risk appetite and risk tolerance. This is often explained by reference to the example of theft of the firm's assets. Whilst there is no appetite for theft in any organisation, many senior managers expect that some level of theft of assets will inevitably occur (e.g. if only of pens and paperclips). This level is tolerated even though there is no appetite for allowing theft itself.

Key Challenges

In our view, some of the principal challenges faced in the creation of an operational risk appetite statement include:

- Achieving management understanding of the concept of operational risk appetite ;
- Gaining management interest in defining risk appetite, and;
- The difficulty in measuring risk exposure as compared with appetite.

We shall be examining below the involvement of management and other stakeholders in the process of producing an operational risk appetite, as well as some of the practical approaches that can be adopted when comparing risk exposure (current position) against risk appetite.

Linkage of Operational Risk Appetite to Strategy

A polarisation of opinion often exists in many organisations about the "chicken and egg" question as to which should come first – the setting of strategic objectives or operational risk appetite? Whilst some organisations seek to establish their operational risk appetite first, others cite practical and organisational problems with this approach.

However, irrespective of the approach adopted, it is fundamentally important that both the strategic objectives and the budgeting process of the organisation "dovetail" in a practical way with the operational risk appetite set, otherwise it can make the monitoring of risk position against appetite a meaningless and misleading exercise. The SSG Report echoes this and comments that, "An effective risk appetite framework … greatly improves a firm's strategic planning and tactical decision making. Firms that have taken their risk appetite framework projects the most seriously acknowledge that these practices have improved their understanding of firm-wide risk profiles and enhanced their decision-making capabilities, allowing them to be more forward-looking, flexible, and proactive."

Different Stakeholders when setting Operational Risk Appetite

Whilst senior management, of course, plays a fundamental role in determining the operational risk appetite of the firm, it should be approved by the board. This sends a clear signal to all staff that the operational risk appetite agreed by the board should clearly govern the activities of all employees. It also defines the boundaries within which the firm's business objectives should be pursued. From an operational risk perspective, this is fundamental, as operational risk identification and assessment is undertaken in relation to the firm's business objectives.

The operational risk appetite of the firm is also important in managing shareholder expectations regarding the amount and type of risk which is accepted. Whilst the appetite of the firm for market risk and credit risk is relatively easy to articulate and quantify, operational risk appetite will include elements which cannot be measured quantitatively, including some risks for which there may be no appetite whatsoever, such as employee deaths or injuries due to poor health and safety procedures.

The SSG Report suggests that the successful implementation of a risk appetite framework necessitates strong internal relationships at the firm, and this is largely due to the numerous stakeholders involved in the process.

Therefore, another complicating factor for operational risk appetite is the question "whose appetite is it anyway?" There are natural tensions between the board, senior management and the shareholders which lead to at least three levels of appetite for any firm:

Senior Management's – operational risk appetite is likely to be relatively short term and focused on business opportunities which generate an appetite which is inevitably bullish in nature ie thresholds and targets are likely to be significant in size. An example could be a merger, which will often lead to acceptance of a considerable increase in operational risk to reflect the period of significant change that will be involved. An intelligent senior management will also increase its relevant operational risk thresholds.

The Board's – risk appetite is likely to be longer term in nature and lower than senior management's. The SSG Report suggests that the board of directors should ensure that senior management establishes strong accountability structures to translate the risk appetite framework into clear incentives and constraints for business lines – for example the provision of positive incentives, such as career advancement and compensation, for individuals demonstrating strong risk management abilities, helps promote a risk culture consistent with the risk appetite framework.

The Shareholders' – risk appetite is likely to be the lowest of the three and will probably be focused on the smallest possible volatility in earnings consistent with a reasonable return.

It is important for the board periodically to review and challenge the risk appetite which has been proposed by senior management. Following the review or challenge the board should reconfirm its appetite, with appropriate changes where necessary. During the challenge period, the board should assure itself that senior management has considered all foreseeable emerging operational risks to which the firm may be subject and that appropriate processes and resources are being utilised to manage them.

Within the firm there will also be different approaches to operational risk appetite at each level, so that we need to ask the question: "At which level within the firm are we considering our operational risk appetite?" In any firm there are at least four levels which have different approaches to operational risk appetite:

- **The Board** - who will frequently seek a risk appetite in terms of capital (either economic or regulatory) and profit.
- **Senior management** - who will tend to define operational risk appetite in terms of risk and the action taken to manage and mitigate each risk.
- **Business units** – which may well use the classic approach to operational risk management of defining their operational risk appetite through risk and control assessments, key risk indicators and loss data.
- **Business support functions** - which mostly focus on key risk indicators and loss data.

To bring our examination of the various stakeholders involved in the production of operational risk appetite to a conclusion, the SSG Report cites that strong and active engagement by a firm's board of directors and senior management plays a central role in ensuring that risk appetite framework and risk data aggregation projects have a meaningful impact on the organisation. The report also concludes that risk appetite frameworks were found to be more effective when generated by highly engaged boards of directors working closely with the chief executive officer (CEO), the chief financial officer (CFO), and the chief risk officer (CRO), because these individuals have the strongest ability to influence business strategy and risk management decisions. Furthermore, the CEO's commitment to a risk appetite framework was observed to be instrumental, as was the strength of the CRO's relationship with the board of directors in explaining critical risk issues.

Expected and Unexpected Losses

Firms may also consider different types of operational risk appetite – expected or unexpected.

Expected operational risk appetite reflects the amount of loss to which the firm is subject, assuming that its controls are operating normally. This is effectively 'business as usual' and is a relatively easy level of loss to identify and measure, as it is the amount of loss which the firm suffers on a regular day-to-day basis. It is usually provided for in the budget or in special provisions. This expected operational risk appetite can, of course, be back tested by comparing it with actual attritional losses.

From a strategic perspective, it is more helpful to consider the **unexpected** loss that a firm may suffer. This is the loss to which the firm is subject when controls fail. It is a much larger figure than the expected loss, as it is usually at a lower frequency and higher severity (making it more difficult to identify and calculate). Scenario analysis can be helpful when considering operational risk appetite at an unexpected loss level. Unexpected loss is effectively what a firm's capital and profits are there to absorb.

Different ways of expressing Operational Risk Appetite

Many commentaries on risk appetite state that it should be firmly grounded in the firm's financial reporting, however with operational risk appetite, this is often easier said than done. Nonetheless, there are a number of ways in which the various components of the operational risk management process can be used to define and manage operational risk appetite.

Absolute Figures

One practical way of expressing the firm's operational risk appetite is through the monetary loss which the firm is willing to accept for each risk to its strategic objectives. A firm may deduce its risk appetite by considering its actual losses against a loss distribution, with the capital determined at a specific confidence level. This can be done at an overall firm-wide loss level or at a loss category level, where sufficient data exists to generate a reliable distribution and its analysis.

The Board may decide that its acceptable risk tolerance lies at the mean of the losses incurred over a given period of time for a particular risk. It can then decide at what point on the curve it should identify thresholds, including for the level of loss it considers unacceptable. Once this is established, risk assessment can be matched to a scale of monetary values as a basis for risk appetite.

In our experience, this approach to defining operational risk appetite is often that favoured by firms looking to produce a "first cut" risk appetite statement.

Risk and control assessments

As a potential starting point, and following the board's overall risk policy, acceptable, warning and unacceptable levels of annual loss are separately identified for the firm as a whole, probably at risk committee or board level.

Ranges are assessed for the impact and likelihood of each risk, which are used to calculate a mid-point for each band. It is then a simple matter for the mid-points for impact and likelihood to be multiplied to achieve a heat map which can be coloured according to the appetite levels already identified. From this sort of format, it is possible to see immediately which risks in the risk assessment are outside the agreed appetite.

Using risk and control assessments

Another method of setting and managing operational risk appetite, is to use risk assessment scores which are linked with the quality of the mitigating controls and displayed graphically, such as in a 'spider diagram'. This graphical representation of risk and control assessment scores is constructed through multiplying the likelihood and impact scores for a risk and multiplying the relevant control design and control performance scores. This allows a comparison of the relative levels of different risks and their mitigating controls and enables an implied current risk appetite to be derived.

Approaching risk appetite in this way means that the firm can adjust its resource application to be more consistent and better fit its actual appetite, whilst keeping its resource spend at an optimal level.

Using risk indicators

An alternative method for setting risk appetite is through Key Risk Indicators (KRIs). This enables one or more appetites to be set for the same risk depending on the number of indicators identified for that risk. When designing managerial reporting mechanisms that utilise KRIs, it is vital to set appropriate thresholds and targets above and below which management action is required, as well as absolute tolerance limits, in line with the defined operational risk appetite.

Using numbers of losses

Comment has already been made above on the size of loss attributable to an operational risk being one way of expressing the appetite for that risk. However, an even simpler measure relating to losses is the physical number of losses that have occurred. This is a straightforward count of the number of losses relating either to a particular risk or to a category or sub-category of risks. For example, external fraud may be more likely in retail parts of the firm, although the impact is likely to be smaller than in the corporate and wholesale parts, such as Trading and Sales or Corporate Finance.

However, a simple count across the firm can be used as the basis for calculating an appetite for specific categories of risk, against which all business lines can be measured, with such a review perhaps being undertaken by Internal Audit.

Using economic capital

Operational risk appetite, in common with other risk appetites, can also be expressed in terms of the regulatory capital required to support a business line and with reference to particular loss event types.

Measuring Operational Risk Appetite against Risk Position

The SSG Report comments that a common risk appetite language across the firm, expressed through qualitative statements and appropriately selected risk metrics, facilitates the acceptance and effective monitoring of the risk appetite framework.

Effective monitoring mechanisms, bespoke to the specific organisation, need to be implemented in order to allow the board and the senior management to monitor the firm's actual risk position (ie its current actual state) against its stated operational risk appetite. Appropriate metrics need to be measured, as well as weighting factors put in place, where appropriate, to allow an accurate assessment to take place on a continuous and ongoing basis. In cases where it appears that the risk position is likely to, or already has, met or exceeded the firm's stated operational risk appetite, then urgent managerial action is required.

Reputational Risk

The recent financial crisis has re-emphasised the importance of 'reputational risk' as a key focus at board level. The SSG Report states that virtually all firms participating in their study attempt to incorporate assessments of reputational risk in their risk appetite frameworks to protect their brand, however they often find it difficult to quantify this risk. Efforts to measure reputational risk qualitatively have proven useful, such as monitoring industry headlines and reporting trends to the board, engaging third parties to conduct surveys, and creating reputational risk committees to assess environmental changes and approve particular transactions based on geography or product line.

Summary and "Top Tips"

In our experience, the key benefits of having a robust and well communicated operational risk appetite in place include:

- Better allocation of resources;
- Demonstrably improved / consistent decision-making, and;
- Effective alignment between strategic goals, and operational activities.

This encourages more conscious and effective risk taking, thus promoting a positive reputation for the organisation.

To summarise, some 'top tips' when constructing an operational risk appetite include:

- Start with a 'top down' approach, as this aligns better to strategy setting processes in an organisation;
- Balance the requirements of various stakeholders (not just shareholders);
- Understand the organisation's strategic objectives and associated risks;
- Align operational risk appetite with existing management processes (especially the personal performance management process);
- Differentiate between short-term and longer-term risk appetite;
- Ensure that broad communication of risk appetite is undertaken throughout the organisation (i.e. beyond senior management);
- Monitor risk appetite changes over time (retrospectively and prospectively);
- Introduce a meaningful suite of Key Risk Indicators to clearly flag to management when action needs to be taken.

Finally, on a continuous and ongoing basis, measure the firm's current risk position against its stated operational risk appetite, to monitor trends, particularly if the risk position is at or near the limits of the appetite.

Avantage Reply Case study

Our case study on Operational Risk Appetite appears in the diagram below.

Case Study | Development of Operational Risk Appetite & Reporting / Project Remediation

Client Requirements

The Clients requested, as part of their preparations for an impending FSA ARROW visit , that avantage:

- Provide comment and feedback on the quality of the information contained within their existing register of key operational risks;
- Work with them to identify the main operational risk categories in relation to which a statement of risk appetite was to be developed;
- Assist them in ascertaining and articulating the risk appetite for each category of operational risk;
- Help them in developing a simple reporting format, suitable for the regular reporting of updates on operational risk appetite and risk position to the Partners in the firm.

One of the key challenges for the client was the fact that the project had previously been started in-house, however the project had stalled, largely due to an unclear understanding of how to approach the development of an operational risk appetite.

Project Approach

Working closely with a senior manager and a Partner of the firm, avantage undertook a comprehensive review of the client's existing operational risk register, and suggested enhancements to the client in relation to its presentation and content.

The next steps involved the identification of the top 'key' operational risks within the firm and then articulating a risk appetite, in relation to them.

The expression of operational risk appetite was built using a mixture of qualitative and quantitative indicators, with a full suite of Key Risk Indicators (KRIs) containing suitably calibrated thresholds and limits.

avantage impact (measurable results / change delivered)

We assisted our client in not only reviving an otherwise stalled project, but also in developing a practical tool to report on the firm's risk position versus its risk appetite on a quarterly basis to the Partners. Suitable coaching was also provided to selected individuals within the firm to aid their understanding of the concept of risk appetite. The following feedback was received from the client at the conclusion of the project :

"avantage were engaged on a risk management and reporting project. In particular, to assist the firm in understanding and articulating its risk appetite and in the construction of an informative yet proportionate risk reporting framework. avantage staff brought a refreshing degree of clarity to an area that was previously unwieldy and difficult to decipher. A project that was in danger of stalling was brought back to life, the concepts behind which were communicated in simple and digestible terms. The output is now a dynamic management tool that works and is fully integrated into the day-to-day operation of the business."

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