



# Investment Risk Management

## Defining the Right Framework



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# 1 Background

Not all risks can be precisely defined by mathematical distributions, with some even defying measurement. Frank Knight famously distinguished between measurable and unmeasurable risks in his dissertation titled 'Risk, Uncertainty and Profit', warranting a clearer distinction between the two. Given the variety and breadth of risks inherent in the capital markets, oversimplifying risk to support measurement may be perilous. While managing investment portfolios, not only do the managers have to account for the intended risks, but also concealed risks which can have a significant impact on returns. This in turn makes risk management the very foundation of a well-run investment process and not just a component of the investment strategy.

During the investment strategy formulation, a greater focus on expected returns and lesser on risk may result in a mismatch between the investment objective and risk appetite. Fund managers take on risk to deliver returns; the objective of investment risk management is not to restrict the fund managers' discretion, but rather to assure clients that their assets are being managed according to the stated investment strategy, consistent with the portfolio objectives (as defined by the investment mandates), and according to professional standards of monitoring, control and accountability.



Each firm's risk management culture, size, scope and geography gives rise to differential practices that determine an appropriate control of investment functions. However, as regulators begin actively scrutinizing controls around risk management and the requirements from institutional investors, investment consultants and distributors grow, there is a significant need for minimum levels of best practice in risk management at investment management firms.

## 2

## Principles of Effective Investment Risk Management

The global financial crisis brought risk management to the forefront and highlighted how the absence of an all-encompassing risk framework may prove disastrous for asset managers. The market's behaviour in the crisis showed that existing risk management practices failed when they were needed the most, especially as the risk extended to previously uncorrelated asset classes. Although such Black Swan events may be impossible to predict ex-ante, implementing a comprehensive investment risk framework helps asset managers manage risk for normal times and also be mindful of and aim to be prepared for such extreme events. So what does sound risk management mean for asset managers?

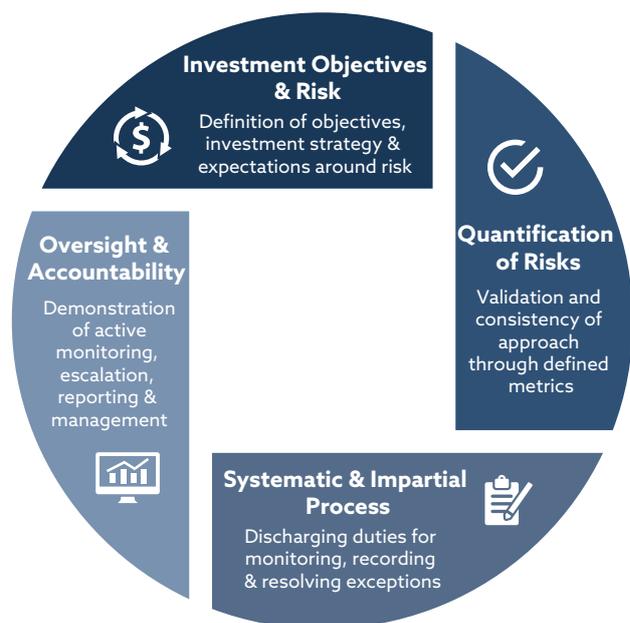
The principles of an effective investment risk management framework are based on the investment objectives and expectations around risk, quantification of those risks, process for managing those risks and oversight on the entire process.

**Link between investment objectives & risk management** - While all market participants may be exposed to some common risk factors, the way these participants generally think about risk varies. Asset managers, who invest their clients' money based on a specific investment object and guidelines, for instance will think differently about risk than proprietary traders who invest their own capital.

Although the way risks are viewed may be different, investment risk management, in general, begins with a definition of the return objective and investment strategy. All portfolios should have a clearly defined and documented mandate that stipulates the investment objective and indicates how key risks in the deployment of assets will be managed.

**Quantification of risks** - Quantitative measures to gauge investment risks help asset managers understand and manage risks in their portfolios. Portfolio exposures, and sources of return and risk should be frequently reviewed to ensure consistency with mandate and provide feedback on the strategy. The impact of these exposures on performance and the expected risk should be quantified and validated against expectations and investment convictions.

**Systematic and impartial process** - The size and complexity of organisations warrant embedding the risk management processes into the organization's infrastructure. Integration of the risk processes in this manner, eliminates the dependency on individuals and hence supports senior management's claim of appropriately discharging their fiduciary oversight duty.



In addition, an independent team should administer and generate analytics & reporting to ensure that all portfolios are subject to the same level of rigour in terms of investment risk management. Exceptions in the process should be escalated to and reviewed by management.

**Oversight and Accountability** - A good risk management process can be characterised as one that provides a clear line of sight of risks undertaken so that the management is aware and can demonstrate active monitoring and management of these risks. A periodic review process should be undertaken to have open and unbiased discussions on the risks. An independent investment risk team can administer these reviews, providing impartial oversight and support, and also document actions to provide assurance that the process is taking place.

## 3 Investment Risk Management Framework

Risk management has been primarily considered a mechanism for measuring, monitoring and preventing loss, but in essence it serves a broader, more practical purpose. Investment management risks can be broadly categorized into two classes: the first that have an alpha associated with them and second strictly characterized by loss. Market risk provides opportunities for upside along with market downturn risks, whereas counterparty and operational risks have no alpha associated with them and need to be minimized in a cost effective manner. Regardless of the risk type, an effective risk management framework needs to be aligned with the investment strategy and enable the management to assure that risk processes are being efficiently defined, controlled and monitored.



Although the terminology may differ, the formulation of a robust investment management framework should go through the following steps:

**1. Defining** the key risks that an organization might be exposed to at different levels in the investment structure. A clear link between the points where funds flow in, to the points where they are invested in the market, enables consistent monitoring and appraisal at different levels as investment objectives are translated into strategies and actual investments.

Depending upon the investments and regulatory environment, the firm might be exposed to various risks. Portfolio exposures, sources of return and risk and client objectives and constraints set forth in the mandates should be taken into consideration while defining these risks. Investment risk mainly consists of the following risks:

**Market risk:** Market risk is the risk associated with adverse movements in the level or volatility of market prices. It includes movements in:

- Interest rates
- Stock prices
- Currency

**Credit risk:** Credit risk is the risk of financial loss associated with default or movement in the credit quality of securities. It could be due:

- Default by the counterparty or debtor
- Downgrade of issue's rating
- Widening in spread

**Liquidity risk:** Liquidity risk is the risk of significant price reduction in a security transaction because the market is not deep enough to efficiently accommodate the desired transaction size.

**2. Controlling** the risks by assigning budgets and setting parameters and tolerances for the defined risks. A proactive approach to risk management involves allocating risk budgets and setting risk tolerances. Portfolio managers should exercise discretion within clearly defined parameters as part of their investment strategy. These parameters should not limit the portfolio manager's discretion; they should rather align the approach and focus with the investment objective and strategy. These parameters should be guidelines rather than hard limits, unless explicitly stated by the client or regulatory body.

**3. Monitoring** the risks, escalating exceptions and generating reports systematically and objectively on a regular basis by an independent risk team. Once the risks have been defined and controls have been placed around these risks, a systematic process of regular monitoring and reporting of these risks by an independent team ensures validation and consistency of the approach. The independent team should generate analytics and reporting to independently ensure that all portfolios are subject to the same level of rigor in terms of investment risk management. The objective should be to achieve exception reporting where the largest exposures, contributors to risk and risk factors are highlighted based on the parameters and controls placed around the risks.

**4. Assuring** consistency & comprehensiveness in the process by establishing oversight on the entire process, segregating roles and responsibilities, and having regular review and feedback. Clear demonstration, review and feedback in the risk management process goes a long way in assuring clients and investors that there is a robust investment risk management process in place. Deviations from expected targets, ranges or strategy, can exist in portfolios but within the right protocol of monitoring, escalating, challenging and management.

## 4 Conclusion

Risk management is a dynamic field and any set of best practices is bound to evolve over time. The right risk framework enables managers to ensure that the investment management process is aligned with the expectations of risk and risk tolerance. This paper provides a starting point for investment managers to establish their own risk management framework. Eventually, investment managers should be able to use this paper as a reference during what will be a challenging but productive journey to defining the right framework.

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 **stradegi** is an Asia based management consultancy focused exclusively on the investment management industry. The team advises asset managers, insurance companies, pension funds and sovereign wealth funds in the areas of business strategy, operations, technology and governance.

The firm was established in 2013 in Singapore by a group of individuals with significant experience in senior roles on the buy-side. Our consultants have first-hand experience of the pains and frustrations that management teams go through in resolving Front, Middle and Back Office issues, and thus offer targeted and relevant advice.

The  **stradegi** team brings an expert, practical and independent view that is based on an in-depth understanding of the buy-side in Asia.

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