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## **Establishing Comprehensive Derivative Policies and Guidelines**

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Ever wonder what it takes to have an effective derivative risk management framework? Implementation of the core aspects outlined in this article will likely reduce the risks in using derivatives as well as increase the usefulness of derivative management reporting metrics. The end-goal is the practice of solid procedures, strong oversight controls, impenetrable trade systems, and timely reporting of derivative trading with respect to governing policies.

### **Establishing Comprehensive Policies and Guidelines**

For many companies an investment oversight committee of the board is charged with the responsibility to approve derivative policies and the associated reporting metrics to meet the needs of the organization in managing the risks of using derivatives. The policy and guidelines “drive” the entire derivative process. In many cases the oversight members rely on the derivative and risk management experts in the firm to formulate, recommend and explain the aspects of the derivative processes the firm should follow. This is obviously a natural outgrowth of the expertise of the derivative team and trust between the oversight members and the derivative team.

Trust in this process is essential but one need pause here on two fronts. First, the board committee should be educated on derivatives to a reasonable level for their oversight to be effective. Education can be a direct board group education session or assigned materials to study. Given the deep nature of derivatives, the goal is not for the board to be deeply fluent in derivatives but rather have a solid grasp of the fundamentals and associated risks. Second, third party oversight with deep derivative experience across the spectrum of trading, policy development, and risk management should be in place to provide an unbiased and expert view of the derivative processes. The third party resource can also help craft the policies and processes with respect to industry standards, as well as conduct periodic reviews. Without a solid derivative framework in place, exposure to risks can be magnified and quickly escalate in various market scenarios.

Ultimately, the investment oversight board committee bears the liability of the derivative management process. The liability can be greatly reduced with effective policies, guidelines, trading systems, settlement processes, derivative risk reporting (both detailed and summary) and ongoing oversight from both internal and external sources to help ensure compliance.

### **Components of a Derivative Policy**

The goal of an effective derivative policy is a comprehensive overview of the derivative trading aspects allowed, processes required, reporting parameters, compliance processes and detailed risk management functions. The components of a policy should be as exhaustive as possible to manage risks while also allowing agility. Some items to consider in developing a comprehensive derivative policy include:



- 🕒 A detailed list of allowed derivative types, permissible countries, currency volatility limits and/or hedging specifications, approved exchanges, anticipated volatility in value for a set notional amount for each derivative category.
- 🕒 Maximum notional and risk allowed to be held for each derivative type.
- 🕒 The maximum volatility market movement for each derivative category allowed and what action should be taken upon reaching thresholds.
- 🕒 Established procedures to reduce risk in an orderly fashion should risk levels approach or breach policy limits. An optimization process could be utilized to rebalance the positions while minimizing transactions. Less liquid over-the-counter (OTC) positions need to be considered in any rebalancing process. The derivative management staff needs to work directly from established procedures to avoid the risk of being in a position of debating what course of action to take when a crisis or important decision needs to be made.
- 🕒 Detailed derivative reporting metrics for an orderly management of the derivative positions:
  - Summarized and detailed derivative reporting of individual positions, in aggregate, by type, whether long or short, and exchange traded versus OTC positions.
  - Frequency of reporting to meet oversight needs.
  - A ranked order of positions by notional and risk of each derivative position.
  - Reporting all calculated Greeks for each derivative position subjected to scenario stress testing by utilizing a range of inputs levels impacting each derivative valuation. Greeks are a collection of statistical values which provide component sensitivity valuation metrics for a derivative. They are used to better understand the change in valuation of a derivative to specific individual component changes. As an example, Rho is the change in the value of a derivative with respect to interest rate level changes. The scenario tests utilized should be established as part of the policy guidelines. They are essential to quantify the range of valuation of the derivative positions. The scenarios should also include granular and broad input factors. The inputs of each derivative type are typically well known. The task is to stress the inputs across a spectrum of values to quantify the potential valuations, resulting risks, and impact on the organization. In the end the intent is to always have a frequent gauge of the current and potential risks of the portfolio of derivatives.
- 🕒 Specific trade level limits for each derivative type since each has unique characteristics and risks. The limits should be based on exhaustive analysis and stress testing of each derivative type with respect to the risk tolerance the firm is willing to bear.
- 🕒 An approved list of traders and their respective trade limits based on the experience or expertise in specific derivative categories. Access to the derivative system for approved traders could be controlled via fingerprint identification technology or other access control methodologies.
- 🕒 Designation of back-up traders and second approval trade methodology.
- 🕒 List of approved OTC counterparties and the process to continually review for suitability.
- 🕒 The use of a variety of OTC counterparties to minimize concentration risk.
- 🕒 The expected cost to exit each derivative position.



## Internal Oversight

A customary process for an organization trading derivatives is to integrate compliance, auditing, and treasury functions to provide additional oversight to derivative trading, valuation, and accounting functions. This oversight is essential as a method of risk management from each of the business areas. These individuals should have a solid understanding of derivatives and the entire derivative process per the company's policies and guidelines. They need to clearly understand the intent and procedures they are to follow. Of utmost importance is for the control owners to stay involved on a frequent basis. Daily electronic reporting should be built into the routine. Timely notification must flow to each applicable person for review of potential and actual problem areas with respect to the policy. This will help to ensure corrective action is properly being taken. Optimally, much of the entire process could be done in a trade system. This will be covered in more detail in a follow-up article. Formal oversight on a frequent basis is needed to satisfy audit requirements and most importantly ensure risk is managed correctly with respect to policies. Anything short of this level of oversight is simply sub-par and provides an opportunity for problems to arise on multiple fronts.

This concludes the first of three articles on derivatives. The next installment will address minimizing the risk of using Over-The-Counter (OTC) derivatives, followed by a third on the effective use of derivative trade and risk management systems.

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