White Paper

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Best practices framework for

Derivatives Practice

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"The world of banking has changed radically as a consequence of the recent crises and it is still changing. The rise of the universal banking model seems almost unstoppable, basically driven by the desire for an accelerated consolidation. The impact of increasing regulatory transparency and Integration will become a major challenge for the banking industry as a whole".

And such regulation begins at home in the form of self regulation. Creating a best practices framework is the first ideal step in such self regulation.

What are derivatives, their need and suitability?

Derivative instruments are financial contracts whose value is derived from the value of underlying assets, credit, interest or exchange rates or indices. Financial Accounting Standards 133 paragraphs 6 to 9 very clearly define what a derivative instrument is and paragraphs 10 and 11 cover what it is not. Derivatives markets are one of the fastest growing divisions of international financial markets.

If properly used, derivative instruments can provide a potentially useful and valuable risk management tool. When judiciously applied, they can effectively reduce risks and transaction costs and when strategically planned, they can facilitate yield enhancement.

To decide on the suitability of a derivative transaction, the users alone are responsible. They can only decide whether the derivative instruments are suitable for them in the light of their circumstances and financial position. Invariably the market finds some users taking up derivative instruments that are not suitable for them and also in volumes much beyond their requirements. Naturally these unfit derivative instruments spell disasters for such wrong users.

The following checklist may help in ascertaining the suitability of derivative instruments in business applications

- Knowledge and expertise to understand the risks associated with derivative instruments.
- In particular, how they are valued and priced and the sources of risk
- Understanding that the derivatives are basically financial instruments
- The benefits of the derivatives should match the business objective
- Recognition that these instruments can be more volatile than investing directly in the underlying
- Acceptance that one can lose the entire capital invested in derivative instruments
- Understanding that there can be a counter party risk

Thus derivatives can become effective valuable tool if properly used and can also turn into wild beast if liberties are taken to indulge in overtrade or speculate. The derivative strategies must be consistent with the scope and objectives of business. They should be applied on a case to case basis according to business's risk-return preferences. Given these objectives, certain types of derivative instruments and strategies may be even inappropriate for some businesses.

Classification of derivatives

The market classifies derivative instruments as simple, medium and complex basing on certain characteristics like standardization, liquidity, long established instrument, underlying, single name, index, basket, intraday price, closing price, etc. Some examples are:

Simple type derivative instruments

- Foreign exchange forward contracts
- Interest Rate Swaps
- Currency Swaps
- Swaptions

Medium type derivative instruments

- Contract for differences
- Standardized index swaps
- Variance/Volatility Swaps
- Inflation Swaps
- Constant Maturity Swaps
- Commodity Index Derivatives
- Hedge Fund Index Derivatives

Complex type derivative instruments

- Total Return Swaps
- Equity Swaps
- CDS Single/Basket
- Exotic OTC options

In some markets, they are classified as standard, non standard and combination derivatives. Some examples are:

Standard derivative instruments

- Single financial instruments that are used to hedge a recognized underlying financial exposure
- Forward foreign currency contracts
- Interest Rate Swaps and Forward Rate Agreements
- A single Option Put, Call, Cap, Floor
- Currency Swaps

Non Standard derivative instruments

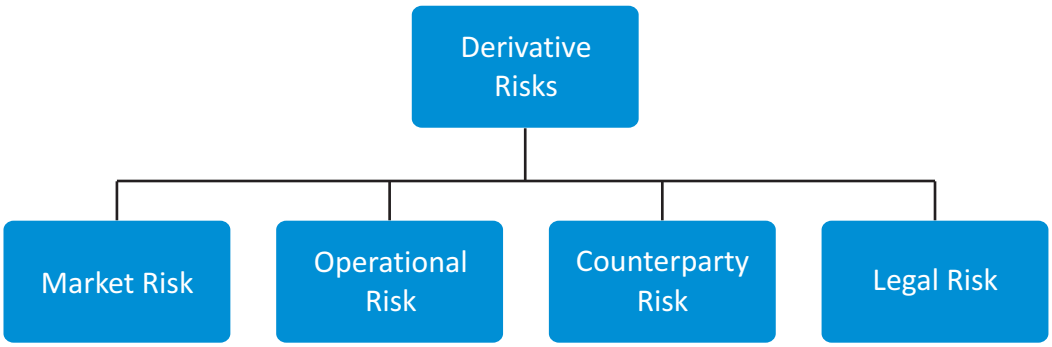
- A derivative associated with commercial exposures and contracts and anything that does not fall into these categories
- Embedded options
- Barrier options
- Cylinders and Collars
- Yield enhancement investment products
- Weather derivatives
- Hybrid specific structures
- Credit derivatives
- Any one sided written option

Combination derivatives

- A productized structured derivative used to hedge a recognized underlying financial exposure

Derivative Risks

Risks are not unique to derivative instruments alone, but they need to be viewed as part of the overall derivative strategy. Some of the major derivative risks are:



Market risk

- The risk to earnings from adverse market price movements

Operational risk

- The risk of losses occurring as a result of inadequate systems and control, human error, or management failure

Counter party credit risk

- The risk that a party to a derivative contract will fail to perform its obligation

Legal risk

- The risk of loss because a contract is found legally unenforceable

Derivative Risk Management Process

One can manage these basic derivative risks by following steps

Step 1

- Understand the purpose of using the derivative uses (trading, hedging, or funding)

Step 2

- Recognize a leveraged derivative can magnify the contract's price fluctuations

Step 3

- Understand a derivative instrument's risk in worst case scenarios

Step 4

- Establish a loss strategy and stick with it

Need for Best Practices Framework

Derivative instruments facilitate risk sharing, risk shifting or hedging. They also enable one in the process of price discovery. At the same time, they also land one in new risks that are potentially capable of destabilizing even matured and successful businesses and some times even matured economies. Some of these risks are potently negative and their consequences are very grave.

Basically these consequences arise from mainly from the 'abuse' or 'misuse' of the derivative instruments through fraud, manipulation, tax evasion or avoidance and distortion of information which is vital for the market efficiency. Some others pertain to the negative consequences from trading. Inappropriate and undisciplined derivative instruments can result in the creation of new risks in the form of greater levels of market risk for a given amount of capital in the financial system and in higher degrees of financial sector vulnerability. They pose a very serious challenge to the safety and soundness of financial markets. They therefore warrant immediate regulatory remedy. As we all know, self regulation is the best regulation. Starting point for such self regulation is prescription and practice of best practices.

Best Practices Framework

Going by the market experience and practice, we have identified certain critical best practices in our suggested framework for derivatives practice.

Best Practices Framework for Derivatives Practice

Ideally any best practices frame work should facilitate the business to answer critical questions in the conduct of derivative practice.

Some critical questions in derivatives practice are:

- Are there written policy guidelines describing the objectives and scope for the use of derivative instruments?
- What type / kind of specific derivative products and strategies are permitted?
- Any outer limits prescribed for taking up these derivative transactions?
- Are these guidelines consistent with the overall strategy and do they conform to the types of operations?
- Does the Board of Directors or other relevant oversight groups understand what risks are being assumed?
- Whether these authorizations for derivative transactions have been unambiguously documented?
- Are there mechanisms to spot deviations? Whether these mechanisms are independent and sophisticated?
- Whether a senior manager's approval is necessary for binding the business organization to a derivative transaction? -Are there independent supervisory personnel responsible for developing, executing and derivative strategies and transactions?

- Are there counter checks (maker-checker concept) for derivative transactions taken up? How soon they are counter checked?
- Is there a methodology in place for measuring market risk? (value at risk, stress testing, horizon analysis)
- Are there written limits on how much market risk can be assumed at any point of time?
- What are the liquidity implications?
- Is there any active secondary market for the derivative transaction?
- How wide is the bid ask spread?
- Are there prescribed limits for credit risk?
- Is there an approved list of acceptable counterparties with sub limits?
- Are there separate credit limits in place for derivative transactions?
- Are there agreements or contracts in place to document and govern derivative transactions?
- Are these agreements in ISDA format and legally enforceable?
- Whether netting and settlement procedures are adequately covered in these agreements?
- What are the accounting policies for derivative transactions?
- What are the prescriptions for periodical revaluation of derivative transactions?
- What are the disclosure norms for derivative transactions?
- What are the capital implications for derivative transactions?
- What are the reporting mechanisms?

What could be the fall out for not opting for them?

The benefits of having such a best practices framework for derivatives practice can be highlighted by looking at what happened to some leading names in the market place for not having such a framework in the first place or not observing them scrupulously if they had one.

Organization	Area of derivative	Amount of loss
Baring Brothers	Options	US$ 1,240 million
LTCM	Currency, I.R Derivatives	US$ 4,000 million
Metalgesellschaft	Energy derivatives	US$ 1,340 million
Orange County	Structured notes, Reverse REPO	US$ 2,000 million
SocGen	Equity derivatives	US$ 7,100 million

The causes for these losses were varied from lack of supervision to failure of pricing models applied. Apparently most of the cases related to market manipulation have their origin in inadequate internal controls at the business level. The existence of internal controls, procedures and systems to ensure ongoing compliance with established rules and regulations could have ensured against them. In this regard, the best practices framework for derivatives practice suggested above is ideal for any type of market – orderly or turbulent.

How Polaris could help

Polaris understands operational infrastructure is the need of the derivative market place. According to Polaris, the catalyst for efficient and volume intensive operational processing is automated data transfer, both internally within and externally in the market place.

To support increasing volumes, Polaris could facilitate the market to move towards an exception processing environment by entailing development of electronic systems to match and reconcile data between market participants.

Polaris could develop and support business events in the life cycle of a derivative trade (confirmation, amendments, novations, cancellations, and option exercises, corporate actions) to reflect standards to trade and legal executions.

Polaris understands, appreciates and provides automation as a main strategic driver in the market place. Our preferred technology would focus on straight through processing from front to middle to back office functions and on real time risk monitoring and provision of timely inputs to the decision makers.

Our experience

Polaris has dealt with and delivered the five key ingredients of the best practices framework in detail in the derivatives vertical through appropriate technology development and support in capturing policies and strategy formulation, transaction execution confirmation and settlement, exposure identification measurement and management, accounting policies standards and business rules & governance reporting and performance measurement.

Polaris experience includes customer's in house developed derivatives systems and leading third party trading applications like Calypso, Murex, etc for leading global banks. Our efforts have enabled our customers to realize reduced cost, improved quality, dependability and reliability, remarkable speed and considerable flexibility in their derivatives practice which in turn received their end customers' appreciation resulting in handling increased volume of business.

Polaris has exploited its seven value levers – domain knowledge, technology expertise, customer understanding, process excellence, reuse of codes, tools, energy of people and flexibility in its derivatives business.

Polaris' focus has always been on supporting through its domain and technological prowess, the development of a truly professional market place with a unified strategy, standards and establishment of best practices to benefit the industry as a whole.

About the Author

Dr.Guru.Raghavan works as a Principal Consultant with Polaris Investment Banking and Capital Markets Center of Excellence. Raghavan works with financial services clients from both domain and business consulting standpoint. He holds a doctorate in Bank Management and comes to Polaris with a very rich practical banking experience in Hong Kong and in India.

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- Migration and Integration

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Polaris is headquartered in Chennai with offices in all global financial hubs including 30 relationship offices across 16 countries, 11 development centers (India) and 4 near shore centers in Toronto, Belfast, Sydney and Singapore.

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