

# **Black Swans to Black Holes : Encountering Uncharted Waters**

## **Derivatives, Bonds and Controls**

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# Agenda

- **A short summary of recent events : Market Event Issues**
- **Pricing and Valuation**
- **Cause and Action**
- **Problems with bonds : FVP Aspects**
- **Problems with derivatives**
- **Control requirements**
- **“Normal” market conditions**

# Summary of Recent Market Events

- A “Black Swan” event? History suggests its more common than realised
- Housing bubble inflated and burst: property obtained with easy money.
- Credit controls non-existent/too relaxed
- Banks had lent against properties
- Sophisticated derivatives “hedged” many positions
- Warren Buffet quotes: “weapons of financial mass destruction!”  
“Economic Pearl Harbour!”
- Central Bank/Government intervention and bail outs, but in US, Lehmans left to go under
- Financial Sectors hit by massive lack of confidence/ bad debts and large losses

# Market Event Issues

- **Financial Sector troubled by lack of investor confidence**
- **UK Government launches Bank bail out/ additional capital provision**
- **Credit Agencies downgrade large number of Issuers, especially US Financials and Automotive**
- **Credit Market takes a battering: pricing & liquidity becomes problematic**
- **Credit Default Swap contracts lead to large losses re Lehman's, AIG, Icelandic Banks, etc**
- **Corporate Bond markets have seen marked decrease in liquidity**
- **Imperfect market conditions result in fire sale prices**
- **Fraud and other valuation issues: black holes appearing**

# Pricing and Valuation

- **Turbulent times have seen various pricing and valuation issues arise**
- **Compliance/Risk Departments seen pushing the boundaries**
- **Brokers, the traditional source, have been reluctant to supply quotes, or else have been quoting fire sale prices that are probably unrealistic**
- **Specialist Pricing Providers have experienced increased number of enquiries for their services**
- **Managers are unsure as to true level of many prices, leading to significant mark downs**
- **Downward re-pricing reduces valuations and NAV, leading to reduced performance**
- **Investors (especially Institutional) seek to exit from “poorly” performing funds creating vicious circle of downward pressure on fund price.**

# Cause and Action

- Valuation has become a pivotal issue for many Managers, not just Emerging Markets, but mainstream Bonds
- Doubts as to true or FAIR value.
- Remember that Fair Value is the definition used when an instrument needs to be valued in perfect market conditions, i.e. full participation with no illiquidity
- UCITS can fall back to Fair Valuing assets with provisions of COLL 6.3.6 (9) guarding against subsequent incorrect calculations
- How is Fair Value Pricing undertaken?
  - A) Look for trading history,
  - B) Similar Issues, peer group pricing, sector equivalents
  - C) Common factors including time to maturity, coupon, credit standing etc
  - D) Quotes and other published information

## Cause and Action (2)

- **Managers governance requirements: “document, document, document”. Provide full audit trail, preferably culminating in Committee decision as to where m-t-m level should be**
- **Ensure a Fair Value Pricing Policy is in force, as per the requirements of COLL 6.3**
- **Is the FVP workable? Regular review should be undertaken**
- **Trends, frequent or ongoing issues should be examined with a view to obtaining alternative pricing source**
- **Are positions held in odd lot sizes or otherwise difficult to trade quantities? Should a valuation provision be accounted for?**

## Problems with Bonds

- **Liquidity has evaporated from the market place. (Some improvement in 2009)**
- **Intermediaries and Brokers are running scared of being left holding positions that could be heavily downgraded, cancel coupons, or else the Issuing Company goes into liquidation**
- **Some Bonds, even with a good credit record and short term maturity, were being quoted at fire sale prices despite maturity in next few months**
- **Fire Sale prices effectively a “no bid” on a Bond: Brokers will quote a bid price so low as to encourage the holder to go elsewhere.**
- **Difficulty is the holder then has an issue as to where to value Bond. FVP needs to kick in, but if no other Brokers willing to quote situation becomes very difficult.**
- **Traditional best practice of looking at same sector, similar coupon and maturity, for comparative pricing has not helped as many in the same boat.**
- **Specialist Pricing Providers have more scope as they will have relationships with a larger number of Brokers.**

## FVP Aspects

- The International Accounting Standards Board (IASB) stated in October 2008 *“The objective of a fair value measurement is the price at which an orderly transaction would take place between market participants on the measurement date; it is not a forced liquidation (i.e, forced transaction). Even when a market has become inactive, it is not appropriate to conclude that all market activity represents forced transactions”* (IASB 2008d, paragraphs 21-22).
- Fair and reasonable is the standard to be applied.
- Alternative sources such as iBoxx indices are becoming more prevalent
- A single stab a at price is insufficient: but a full documented audit trail culminating in the estimation of a realistic price is the ideal solution.
- Expertise and reading/understanding of the markets has become the norm

# Problems with Derivatives

- Pricing and Valuation issues not totally dissimilar to bonds
- Liquidity in credit derivatives held up better than expected
- Some option positions have shown illiquid prices, including deep in/out of the money exchange traded single stock options
- Fair Value Policy again required
- Model/theoretical value can assist, but dependent on assumptions and views of parameters
- Full audit trail & documentation of assumptions required
- Specialist Market providers can value positions, for a fee
- Fund Accounting has become more skilled over last 3 months

## Problems with Derivatives (2)

- **Four key drivers for pricing CDS's: a) Premium paid, b) Recovery Rate, c) Credit curve of reference entity and d) LIBOR/US Treasury curve**
- **Recovery rate assumptions “hit for 6”: that's 6 cents actually – instead of previous general assumption of 40 cents.**
- **Credit curve of reference entity: used to be linear, recent events have shown this to be non-linear. Most models will struggle unless some smoothing occurs**
- **Fair Value Policy again required**
- **Model/theoretical value dependent on assumptions and parameters**
- **Specialist Market providers can value positions, for a fee!**

## Problems with Derivatives (3)

- **Market conditions could result in Funds hitting liquidity problems as derivative contracts entered into 12 months ago and now maturing are creating cash flow issues.**
- **Typically, long dated forward fx trades, and other written call options/bullet swaps could create settlement and liquidity issues**
- **Fund borrowing is significantly increased and may threaten COLL 10% of NAV limit**
- **Certain asset classes are more of a headache than others, eg commercial property, hedge funds**

# Control Requirements

- **Centred around pricing and valuation:**
  - Valid, fair and reasonable test
  - FVP Policy: does it cover most circumstances?
  - Third party comparisons
  - Theoretical/model valuations driven by input assumptions
  - Watch for stale and firesale prices, especially from Brokers
- **Documentation: are all otc transactions appropriately documented?**
- **Certain asset classes are more of a headache than others, eg commercial property, hedge funds. Special attention required**
- **Cash & Borrowing needs: watch for increasing needs**
- **Counterparty controls: more frequent assessment of outstanding risks**

## Control Requirements (2)

- **Fund Redemptions: watch for increasing amounts**
  - Redemptions could lead to need for sale of bonds or unwinding of derivatives
  - Liquidity of these instruments may create issue
- **Fund Liquidity Control/Test**
  - How long would it take to unwind 10% of the Fund to meet redemptions?
- **Staff skill set & experience: is it up to speed?**
- **Ask the question: are you doing all you can to ensure your Funds risk exposure is not changing/has not changed beyond its investment objective?**

## **“Normal” Market Conditions**

- **Current Market conditions = uncharted waters for many**
- **When will normality return? Not within my scope!**
- **Robust controls will need to be an everyday event**
- **New challenges will continue**
- **Further black holes will appear: control environment is firmly under the microscope**
- **This whole “black swan” event will re-write the control environment and requirements**

# **Black Swans to Black Holes:**

## **Encountering uncharted waters**

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