CA FINAL

RISK MANAGEMENT

IN-HOUSE

CASE STUDY SERIES

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Case Study 16 Answers

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THE FAILURE OF LONG TERM CAPITAL MANAGEMENT (LTCM)

Multiple Choice Questions

Answers

1. **A is correct**

   (relative value;a.k.a. “convergence trade,” primary of fixed income)

   This is an example of a converge trade on the spread between U.S. interest rate swaps and U.S. government bonds.

   In regard to (D), this is arguably an acceptable answer in their later years as they “style drifted” into directional exposures.

2. **D is correct.**

   Narrowing of interest rate spreads.

   Narrow spreads (convergence) was their strategy; a “flight to quality” caused temporal divergence.

   - In regard to (A), Salomon has similar positions to LTCM, so their selling made the situation worse.
   - In regard to (B), LTCM seeking equity created two problems:

     1. rumors drove prices down further, and

     2. LTCM was forced to disclose position information.

   - In regard to (C), the Russian debt default was the “event risk” trigger

3. **C is correct.**

   Need to train new personnel in compliance, disclosure and capital requirements

   In regard to (D), the need for Factoring the potential costs of liquidating positions in an adverse market environment into estimates of the price at which trades can be unwound. These estimates should be based on the size of positions as well as the general liquidity of the market.

4. A is correct.

Despite being well diversified across multiple geographical jurisdictions and asset classes, LTCM had all its trading strategies over relying on the premise that risk premiums and market volatility would ultimately decline. LTCM was far less diversified than a cursory examination would suggest. Therefore, it was still subject to market risk.

5. D is correct.

To begin with, the LTCM models basically relied on historical correlations to measure risk. In so doing, the firm inadvertently failed to account for the spike in correlations caused by economic shocks. A good example of such a shock was the defaulting of Russia on its debt that initiated a worldwide economic tumble. In addition, the models ignored the possibility of infrequent shocks clustering together, one causing another. The result was underestimation of risk in the tails of the distribution.

6. C is correct.

Both factors were involved in the financial disaster of Long-Term Capital Management (LTCM). The positions opened by LTCM were highly leveraged due to the waived initial margin requirements by financial institutions and allowing the leverage of 28 to 1 to LTCM. The model risk was also one of the factors of LTCM's disaster, and the flawed trading models failed to account for the spike in correlations among asset class prices during times of economic crisis.

7. D is correct.

Moral hazard did play a role in LTCM's failure. The readiness of the US Federal Reserve System to bail out troubled financial institutions, including LTCM, increased the latters' appetite for highly risky positions.

There are several culprits and events that collectively played a role in LCTM's failure. At the heart of its poor risk management was LTCM's overreliance on theoretical market risk models at the expense of stress testing, while still turning a blind eye to gap risk and liquidity risk. There was an exaggerated assumption that LTCM's portfolio was sufficiently diversified across markets. However, in most markets, LTCM was replicating basically the same credit spread trade.

In addition, LTCM made little effort to disclose its exposures to counterparties, which in part explains its leverage. There was no way counterparties could establish LTCM's exposure to other counterparties.

Unlike other non-bank participants in swaps and repo transactions, LTCM was not asked to pay initial margins. As a result, LTCM was able to build layer upon layer of repos and swaps.