

## **Research Paper Number 29**

### **Liquidation Risk**

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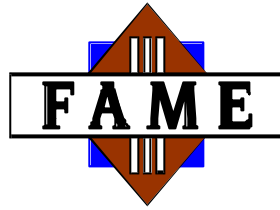
**Duffie, D., Ziegler, A. (2003): Liquidation Risk, Financial Analysts Journal, 59(3), May/June, 42-51**

#### **Abstract:**

During the turmoil in financial markets in late 1998, financial institutions attempting to liquidate positions to meet capital requirements may have faced unexpectedly high bid-ask spreads. In this paper, we investigate the effect on key risk measures (such as the likelihood of insolvency, value at risk, and expected tail loss) of spreads that are likely to widen just when positions must be liquidated in order to maintain capital ratios. Our results show that illiquidity causes significant increases in risk measures, especially with fat-tailed returns. A potential strategy to address this problem is for financial institutions to sell illiquid assets first, keeping a "cushion" of cash and liquid assets for "rainy days". According to a simple model presented in this paper, such a strategy, while increasing expected transaction costs, may significantly decrease tail losses and, especially, the probability of insolvency. In light of our results, it seems wise for financial institutions to carefully examine their strategies for liquidation during periods of severe stress.

#### **Executive Summary:**

During the turmoil in financial markets in late 1998, financial institutions attempting to liquidate positions to meet capital requirements may have faced unexpectedly high bid-ask spreads. In this paper, we investigate the effect on key risk measures (such as the likelihood of insolvency, value at risk, and expected tail loss) of spreads that are likely to widen just when positions must be liquidated in order to maintain capital ratios. Our results show that illiquidity causes significant increases in risk measures, especially with fat-tailed returns.



A potential strategy to address this problem is for financial institutions to sell illiquid assets first, keeping a "cushion" of cash and liquid assets for "rainy days". According to a simple model presented in this paper, such a strategy, while increasing expected transaction costs, may significantly decrease tail losses and, especially, the probability of insolvency. In light of our results, it seems wise for financial institutions to carefully examine their strategies for liquidation during periods of severe stress.