# **Abstracts of NYSSA Programs**



## Capital Ideas and Market Realities

r. Bruce I. Jacobs is on a crusade. He wants to educate investors about the pitfalls of some modern investment strategies—before it's too late. He believes that option replication, dynamic hedging, and other "mechanistic" trading systems based on option pricing models, are the heirs apparent to a failed strategy called "portfolio insurance," which was first developed in the early 1980s. This strategy was the first to implement the notion of synthetic options.

In 1982, while at Prudential, Jacobs was asked to investigate the portfolio insurance strategy. He became convinced that the strategy could not guarantee against losses, and that it could lead to increased market volatility because of its trend-following trades. Jacobs convinced Prudential to stay out of the portfolio insurance business, but the marketing blitz for the strategy attracted \$100 billion in insured assets, which was about 3% of the market cap at the time. His worst fears were borne out in the crash of 1987, for which he holds portfolio insurance largely responsible.

### Portfolio Insurance's Hard Sell

Portfolio insurance was marketed as a panacea for all investment problems. The vendors promised it would:

- Provide a hard floor on losses while enhancing returns, achieved by adding to or levering one's equity positions and then insuring those positions against loss.
- Balance pension assets and liabilities dynamically.
- Reduce short-term fluctuations in pension portfolio values.
- · Reduce fluctuations in corporate earnings.
- Raise actuarial assumptions.
- · Reduce corporate pension contributions.

#### How Portfolio Insurance Contributed to the Crash of 1987

In Jacobs' words: "Portfolio insurance had become a fad, and it helped to amplify the market's rise." Insured investors bought more equity because they thought they were protected. This placed even more upward pressure on stock prices. Rising prices caused even more buying because the rules of portfolio insurance state that you purchase more as prices rise. Because portfolio insurance trades are not visible to other investors, they would not have been aware that these equity purchases were motivated by pessimism, not optimism.

The market's continuing rise was interpreted as a signal of still further stock price rises to come. But in the week preceding the crash, price declines made the extent of bearishness obvious. Futures sales fueled a portfolio insurance-index arbitrage downward spiral. Portfolio insurance selling accounted for most of the futures volume. The market spiraled down. Futures discounts were unprecedented. Indexed arbitragers bought the cheap futures and sold stock. But their sales of stock were soon surpassed by the portfolio insurers because liquidity in the futures market had dried up.

Therefore, portfolio insurance failed the crash test. Portfolio values were not protected. The strategy sowed the seeds of its own demise because, according to Jacobs, "Dynamic hedging is a positive feedback strategy that amplifies the market's volatility. It's like a household thermostat that's gone berserk—the more the temperature rises, the more it calls for heating. The more the temperature falls, the more it calls for cooling."

## Results of the Crash of 1987

The markets rose steadily, and reached a new high in just a couple of years. But insured investors were locked out of resulting gains, because they had to be sold out of stock to protect against further losses. They needed to maintain their portfolios in cash until the end of their policies. But most insured investors recognized that the strategy had failed, and they canceled their policies. Insured assets dropped by two thirds. The level of futures volume dropped in half because portfolio insurance trading had come to a close, and the demand for listed options increased.

# The Specter of Portfolio Insurance Lives On

Today the marketing pitch has moved beyond the institutional community into the realm of the individual investor. Brokers are now offering guaranteed equity—upside without the downside—a familiar tune. Sellers purchase a call option, which may be sold by an OTC dealer who must dynamically hedge its short option position. OTC options have experienced explosive growth—\$300 billion in the US alone. Jacobs calls these sellers of OTC options "modern day portfolio insurers. They use dynamic hedging to control their risk exposures." Since the crash of '87, dynamic hedging by option sellers destabilized the market again, in October 1989, fall 1991, and in 1998.

## Conclusions



Jacobs admits that these strategies offer temptations that are difficult to resist. Investors are captivated by two dangerous illusions—the illusion of something for nothing (high returns with no risks) and the illusion that derivatives are a source of unlimited liquidity. He believes that these two illusions form a lethal combination once a critical mass of investment dollars is reached. "This is what happens when capital ideas, blindly applied, collide with market realities."

For a more detailed analysis, see Jacobs' new book, Capital Ideas and Market Realities. This book is available in the NYSSA bookstore at www.nyssa.org.

Presentation at NYSSA, November 23, 1999, by Dr. Bruce I. Jacobs, Principal, Jacobs Levy Equity Management

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