

Review of *Capital Ideas and Market Realities: Option Replication, Investor Behavior and Stock Market Crashes*

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Times change, markets change and, even more important, ideas change. At one time portfolio insurance was regarded as one of the major new ideas in financial markets. After the 1987 stock market crash, portfolio insurance went underground. However, as Bruce Jacobs points out in *Capital Ideas and Market Realities*, while the actual approach (synthetic option replication) is less prominent, other financial strategies which may create market upheavals still exist and are promoted by other similar, if not identical, trading strategies.

Capital Ideas is certainly an interesting read. For the truly disturbed, one could imagine being on a flight to London with Jacobs on one side of the isle and perhaps Bob Merton on the other, while each parades the pros and cons of various investment strategies and their potential impact on market return patterns and systemic market risk. Before I start to review the book, let us get one issue out of the way quickly—buy the book. If nothing else, it is a great read, and if one is old enough to have lived through the period, just seeing the names of some of your colleagues and peers is worth the price of admission. More important, the book reminds us that every investment strategy has trading implications that are often not fully explored by the investor or explained (or even understood) by the seller. Simply put, portfolio insurance implied selling futures to reduce

one's exposure to price declines (increase cash exposure) as prices decline and to increase exposure (buying futures) as prices rise. In that context, portfolio insurance costs were path dependent. The actual cost of the option-replicating program were a function of the evolving volatility in the market (rebalancing) and not set when the option was bought. What happened, in a nutshell, is that as prices dropped, synthetic portfolio insurance kicked in and sold futures, driving down the price of futures contracts relative to cash. (In a world of perfect arbitrage some one would step in buy the futures contract and sell cash.) However, whatever the process, selling cash may elicit further selling of futures contracts, and declining futures prices make investors panic and sell cash, prompting portfolio insurers to sell futures. What should happen in the extreme case is that cash prices get underpriced relative to true value and investment firms jump in, buy cash and up we go. Of course, in 1987 this did not happen. The risk of buying cash in a downward trending market was too high for any one to buck the tide (see page 126 in *Capital Ideas* and the excellent discussion of the work of Frank Jones and Joanne Hill on what is necessary for synthetic portfolio insurance strategy to work). Similarly, in 1998 as emerging-markets debt prices spiraled downward, no one stepped in to buy, but rushed to get out and into safe assets.

There is a great cartoon that says it all. Picture the floor of the exchange. Someone says nothing is happening, so he says, “Good-bye.” “Did someone say good buy? Good Buy!!!! Buy!!!! Buy!!!!. Hey, I’ve made so much money I am really going to excel.” ... “Did someone say sell? Sell!!!! Sell!!!!” In today’s investment market one hopes that all strategies are stress-tested against such events. But how does one know when such events can happen? We only have one sample of the past. The problem however, is ongoing. If one wants to sell something that no one else wants to buy, what is the “real value” of that asset?

There is an essential point in Jacob’s argument. Other authors have pointed out that if one believes that prices’ mean revert, one should follow various forms of tactical asset allocation; that is, buy low and sell high. If one believes in first-order auto correlation of prices, then one may wish to follow various forms of portfolio insurance strategies; that is, sell as prices fall and buy as prices rise. If one believes that returns follow a random walk, then perhaps strict strategic asset allocation should be the name of the game. For purposes of this review, how hedge funds (which may use options or other strategies criticized in the book) fit into strategic asset allocation is another question. Certainly, various market-neutral strategies favor certain mean-reverting theories of price behavior while certain hedge equity believe that long-short positions may deviate in value (first-order auto correlate). What Jacobs knows but fails to detail (a minor point given the focus of the book) is that every strategy is based on assumptions of price and investor behavior. If his book does anything, it serves as reinforcement to the investor—let the buyer beware.

As a final note, this reviewer was a willing participant in 1987 in the great portfolio insurance game. Were there attempts to come up with alternatives to synthetic portfolio insurance? The answer is yes. A Ph.D. student at the University of Massachusetts was working on a dissertation that proposed using actively traded option replication via Lindo as a means to offer protection based on assumed delta and gamma modify hedging. The crash came too soon to implement the idea, but today it forms the basic means of hedging and asset risk management. The point is that the instruments, the techniques used in any one period are unique to that period. While remembering the past is important, if for nothing else, to remind us of our failures, a future financial crisis may have a wide range of sources (for example, Internet viruses). Despite the failure of past trading systems (at least in the

extreme), one must remember that those who had portfolio insurance lost less than those who did not, and those who diversify into a wide range of strategies (even those that may contain the seeds of their own destruction) often insulate the investor against other informational and market unknowns. The interrelationships are complex.

Who should determine which strategies should be applied and whether they are too risky? Unfortunately neither Jacobs nor myself are willing to offer our solutions here. But *buy* the book. Did someone say buy? Buy!!!!!! Learn and excel. Did someone say sell? Sell!!!!

ENDNOTE

This is a review of Bruce Jacobs’ *Capital Ideas and Market Realities: Option Replication, Investor Behavior and Stock Market Crashes*, Blackwell Publishers, 1999.