Complete Text of Bruce I. Jacobs's Abbreviated "Postscript: Author's Comment" (*Financial Analysts Journal*, May/June 2001.)

Writers who have the temerity to publish a book must also develop the fortitude to face the reviews. Fortunately, my book *Capital Ideas and Market Realities* (CIMR) has received mostly favorable reviews. This was certainly true of the review in the July/August 2000 *Financial Analysts Journal*, written by the *FAJ*'s book review editor, Martin Fridson. (review) That review called CIMR a "meticulously documented book [that] presents compelling evidence . . . that portfolio insurance failed to deliver on its lofty promises" and said that it "astutely sizes up the continuing search for what [Jacobs] labels 'the Northwest Passage of no-risk reward.'"

In the January/February 2001 *FAJ*, however, Fridson published an unprecedented "Postscript" to his original review. (postscript) This postscript took particular issue with CIMR's presentation of the way in which portfolio insurance was marketed by its primary vendor, Leland O'Brien Rubinstein Associates (LOR) in the 1980s. I felt that the postscript's abrupt about-face and many false charges, based largely on unattributed sources, demanded a response to set the record straight. The *FAJ* agreed to publish only an extremely abbreviated version of the original response I submitted. The following is the complete text of my response; it has been updated and expanded since the version sent to the *FAJ*.

The Marketing of Portfolio Insurance and the Magnification of Market Risk: The Whole Story

In the unprecedented "Postscript" to his original review of my book, *Capital Ideas and Market Realities* (CIMR), Martin Fridson charges that I "cannot make a charge of bad faith stick against LOR's principals"; that CIMR "marshaled selected quotations" to make its case; that LOR mentioned the highly favorable outcome that the cost of insurance could be negative as a "possibility, not a likelihood"; that CIMR omits evidence that would temper the strong assertions in LOR's advertisements; that "LOR's pre-1987 presentations were candid in describing the likely impact [on the strategy] of greater-than-expected [market] volatility"; and that portfolio insurance is in any case a "dead letter."

This article refutes those charges. I review LOR's advertising claims, as well as LOR's representation of portfolio insurance in other venues, including professional journals and trade publications. The salient questions, in my mind, are whether LOR adequately disclosed potential problems with the product, and if not, why not?

At the outset of his postscript, Fridson questions "whether users of the product were, or should have been, surprised by portfolio insurance's performance on Meltdown Monday." His answer is an implicit "no." But this conclusion is based on a single reference (to a Mark Rubinstein article) and on certain "observers," "investment professionals," and "sources," all of whom remain unnamed. By contrast, CIMR relies on hundreds of named sources, including almost all published articles, advertisements, and marketing materials on the subject. That evidence, and new evidence presented here, indicates that users (although perhaps not sellers) of portfolio insurance *were* surprised, and for good reason: They had not been made adequately aware of the potential pitfalls in the strategy.

Portfolio insurance, and in particular the marketing of portfolio insurance, is hardly a "dead letter," as Fridson maintains. Marketing that creates the false impression that a strategy offers high (equity-like) returns at low (below equity level) risk can enable the strategy to attract substantial investments, especially if it is sold with a credible guarantee of certain returns. If the strategy becomes the "in" thing, the size of the investments committed to it can in turn threaten market stability when the requirements of the strategy call for massive sales into declining markets. CIMR illustrated this with the example of portfolio insurance and the crash of 1987, but it also gave numerous examples of similar strategies at work in markets today.

LOR's Advertisements

Fridson's postscript charges that "Jacobs *marshaled selected quotations* to suggest that promotion in the early 1980s by Leland O'Brien Rubinstein Associates (LOR) led investors to believe that its portfolio insurance product placed an absolute floor under their potential returns" (emphases added). I did not use selected quotations; CIMR reproduced LOR's advertisements in full. The assertions regarding the ability of LOR's portfolio insurance strategy to "guarantee" portfolio return are stated baldly in these advertisements. It was LOR that claimed (in the advertisement reproduced on page 37 in CIMR ad copy): "Dynamic Asset Allocation assures a minimum required portfolio return while providing the upside potential of equity investing. This strategy has the effect of insuring an equity portfolio against loss--*a guaranteed equity investment*" (emphases in original). Another LOR ad (reproduced on CIMR page 41 ad copy) states that portfolio insurance can "put a lock on market gains." In an LOR marketing piece, Robert Ferguson and Larry Edwards [1985] assert that "It doesn't matter that formal insurance policies are not available. The mathematics of finance provide the answer. . . . The bottom line is that financial catastrophes can be avoided at a relatively insignificant cost."

While the postscript charges that, according to the unnamed sources, LOR mentioned the highly favorable outcome that the cost of insurance could be negative as a "possibility, not a likelihood," the evidence demonstrates otherwise. The highly favorable outcome was promoted as a likelihood, not a possibility. LOR stated (in the advertisement reproduced on page 39 of CIMR ad copy): "There is a cost, or premium, for the minimum return assurance that the Fiduciary Hedge Program provides. However, with the FHP in effect more of the fund's assets can be placed in higher expected return albeit riskier asset classes. The net effect can be to increase the total fund's expected return by 1 to 2 percent per annum." The LOR ad reproduced on page 37 in the book details the excess return offered by portfolio insurance over and above the equity market return.

I believe that the characterization of portfolio insurance in LOR's advertisements as a "guaranteed equity investment" was misleading and deceptive and did little to disclose the true risks inherent in the strategy. Investment advisers are subject to Section 206 of the Investment Advisers Act of 1940, which prohibits advertising that is false or misleading (even if the deception is unintentional).

Under 206, advisers are also prohibited from using model results in advertisements unless disclosures are made regarding the possibility of losses, the limitations inherent in model results, and any material effects of market or economic conditions on the results portrayed (see Clover Capital Management, Inc., SEC No Action Letter, October 28, 1986). LOR used model results in its advertisements (see page 37 of CIMR) to assert that: "Hypothetically, over the 10 years ending 1981, one dollar invested in the S&P 500 would have returned $1.89 (6.5% per annum); one dollar invested in T-bills would have returned $2.18 (8.1% per annum); one dollar invested in the S&P 500 and in T-bills in accordance with the principles of Dynamic Asset Allocation would have returned $2.61 (10.0% per annum)."

The advertisement fails to disclose the possibility of losses and the limitations inherent in model results; there is also no explicit discussion of a very material market condition affecting the results shown--namely, the fact that during the simulation period, stocks rose less than T-bills. As I point out in CIMR (page 49), it pays to be insured (less than fully invested) in such markets, because holding cash is more profitable than owning stock. However, over the long run, equities *have* outperformed cash. My own simulations over the longer, 1928-82 period show that the decision to "purchase" portfolio insurance would have resulted in an enormous wealth sacrifice compared with a full investment in stocks (see CIMR page 49).

When it comes to disclosure in the securities industry, regulators have set high standards, and for good reason. As the U.S. Supreme Court (in SEC v. Capital Gains Research Bureau, Inc., 1963) points out:

> The Investment Advisers Act of 1940 was the last in a series designed to eliminate certain abuses in the securities industry, abuses which were found to have contributed to the stock market crash of 1929 and the depression of the 1930's. . . . A fundamental purpose . . . was to substitute a philosophy of full disclosure for the philosophy of *caveat emptor* and thus to achieve a high standard of business ethics in the securities industry. . . . As we recently said in a related context, "It requires but little appreciation . . . of what happened in this country during the 1920's and 1930's to realize how essential it is that the highest ethical standard prevail" . . . in every facet of the securities industry. . . .

I believe that any objective reader of CIMR would conclude that LOR's advertisements did not live up to this standard.

Downplaying the Risks

The postscript charges that my book ignores other LOR documents that would temper the strong assertions in LOR's ads. This argument is beside the point, as the advertisements themselves must meet the disclosure standards set out in 206; disclosures in other venues, such as journal articles, cannot "make good" for a lack of required disclosure in the advertisements. Nevertheless, CIMR does make note of the discussion of potential risks to be found in some of the articles published by LOR principals and employees in professional journals. It finds that these risks are uniformly downplayed, if not dismissed outright.

Fridson's postscript suggests, for example, that Mark Rubinstein's [1985] article, "Alternative Paths to Portfolio Insurance," provides a clear indication of the potential problems faced by the strategy. It is true that the article (which was referenced in CIMR) states that portfolio insurance is not "perfect insurance." (CIMR, by the way, never said that LOR claimed to offer "perfect insurance.") Despite this demur, however, the article is hardly forthcoming about just how imperfect the strategy is. The discussion of price jumps and other factors (including uncertain interest rates, uncertain volatility, and transaction costs) downplays their effects on portfolio insurance, rather than elucidating the potential pitfalls in an objective and unequivocal manner.

For instance, Rubinstein states: "In the case of dynamic asset allocation, this gradual transition to cash is an automatic and continuous feature. Because the portfolio will tend to be invested mostly in cash just before a jump that could create a loss, jumps will be less of a problem [for dynamic asset allocation than for stop-loss strategies]." While a comparison to stop-loss strategies is provided, there is no indication of how severe the problem can be. For example, if the jump down occurs immediately after insuring or after a market run-up, when the portfolio is mostly allocated to stocks, the associated loss may be catastrophic.

The effects of unexpected increases in volatility are similarly minimized (and confined to loss of upside capture): "Proper implementation of the replicating dynamic asset allocation strategy retains full loss protection, but the upside capture now depends on the realized volatility over the year." What is not stated is that the upside capture may not be realized because the strategy has "stopped-out," requiring a full commitment to cash, because the floor of protection has been pierced; in such a case, the investor has neither upside capture nor the promised loss protection. Rubinstein thus lists, but then virtually dismisses as inconsequential, the effects of real world conditions on portfolio insurance strategies.

In fact, another article by Rubinstein, with Hayne Leland [1981], provides a somewhat franker discussion of price jumps and gaps. Contrary to the charge that my book omits relevant evidence, CIMR (page 51) quotes directly from this article:

> In a discussion of synthetic call strategies, Rubinstein and Hayne Leland (1981: 66) recognize that "the possibility of gap openings or jump movements in the stock price means that a call can provide something that a levered stock position [synthetic option] cannot. To take an extreme case, suppose a catastrophic event suddenly causes the stock price to collapse to zero. This may happen too fast for us to adjust our stock/cash position."

CIMR (page 51) goes on to note, however, the authors' retreat from this caveat when it comes to their conclusion:

> Nevertheless, Rubinstein and Leland argue, a synthetic strategy is "tantamount to insuring the equity portfolio against losses by paying a fixed premium to an insurance company." They qualify this statement only in a footnote: "the analogy to insurance breaks down under a sudden catastrophic loss that does not leave sufficient time to adjust the replicating portfolio" (Rubinstein and Leland 1981: 72).

Similarly, in an article entitled "Ten Myths About Portfolio Insurance," Leland [1986] acknowledges that "greater than expected volatility raises the [insurance] program's cost or premium," but nevertheless states that "volatile markets are precisely when protection is most valuable." Leland also asserts that it is a "myth" that "whipsawing can kill an insurance program." He was proved wrong by the 1987 crash, which demonstrated just how susceptible trend-following strategies such as portfolio insurance are to quick price reversals. Their transaction costs explode, and their protection evaporates, as they find themselves continually trading in the wrong direction against rapid price changes.

LOR's Disclosures to Clients and Prospective Clients

According to "investment professionals" referred to in Fridson's postscript, "LOR's pre-1987 presentations were candid in describing the likely impact of greater-than-expected volatility." I would welcome an opportunity to see these presentations, because the many I was exposed to as a prospective LOR client were anything but candid. In fact, it was in a marketing piece that LOR's Ferguson and Edwards asserted that "it doesn't matter that formal insurance policies are not available. The mathematics of finance provide the answer."

Information I've seen since the publication of CIMR has not led me to change my mind. In the spoken lectures accompanying the internet version of his recent derivatives book, Rubinstein [1999] discusses the manner in which, prior to the crash, LOR covered the problem of market price discontinuities: "It says in our contract, by the way, *on page 18 in a footnote*, if the market ever has this kind of behavior the system doesn't work. . . . It's just that we didn't put it on page one. One reason we didn't was that we didn't think these [kind of] discontinuities would happen" (emphases added).

Schedule F of Part II of Form ADV, Item 1.D., filed by LOR with the SEC on January 15, 1986, makes the following disclosures concerning the strategy, which are typical of the statements they made prior to the 1987 crash:

> The commitment fractions [between "risky" assets and "reserve" U.S. government securities] are determined and redetermined over time through the use of registrant's Dynamic Asset Allocation (DAA) model. No market forecasts are required or used. The implementation of DAA produces a pattern of investment returns for the account over a specified time period which *replicates the pattern of investment returns which would be achieved by holding a "protective put" on the account (a combination of long assets*

> *and a put option on the assets)*. This pattern of investment returns is characterized by: (1) a pre-specified minimum rate of return or protected dollar value for the account over the specified time period, and (2) concurrent retention of the ability to capture most of the gain that would arise if the account's assets were fully invested in the "at market risk" assets when returns from the risky portfolio are favorable. [emphases added]

According to Items 4.A., B. & C., filed the same date:

> The purpose of determining and redetermining the commitment fractions is to control the exposure of the account to "at market risk"…assets. The benefits of applying DAA are the limiting of downside risk to a predetermined minimum rate of return over a specified time period . . ., while retaining the capability to capture most of the gains during periods when returns from the active portfolio are favorable. Depending upon the level of downside protection selected by the client, the time period specified, interest rates and the characteristics of the assets held in the risky portfolio, an initial mix between risky and reserve portfolios is established. Market values are monitored frequently . . . and, depending upon the investment returns experienced, commitment fractions are adjusted. . . . The determination and redetermination of commitment fractions is based upon mathematical calculations which are designed so as to always hold the minimum amount of reserves necessary to assure the minimum return selected . . .

Thus even to the SEC portfolio insurance is presented as a "sure thing," with little or no qualifications.

Foreknowledge of Product Pitfalls

According to the quotation above from Rubinstein's [1999] mini-lectures, LOR only footnoted the possibility of strategy failure because they believed it would never happen. As I discuss in CIMR (pages 50-52), however, I myself had brought to LOR's attention in the mid-1980s some major implementation pitfalls that could cause portfolio insurance to fail to deliver on its promises. My own simulations of the strategy, for example, showed that it could stop out, falling below the insured floor and missing subsequent equity market gains. I had also discussed, in public debates before the 1987 crash, the volatility-exacerbating effects of portfolio insurance.

LOR's principals were themselves aware of these effects. In "The Stock Market Crash" mini-lecture accompanying the internet version of his derivatives book, for example, Rubinstein [1999] discusses how trading associated with portfolio insurance contributed to the sharp one-day decline in stock prices one year before the crash, in September 1986. There and in the *Derivatives Strategy* roundtable (2000), he talks about his 1987 (pre-crash) deliberations with Leland over whether LOR should pre-announce their trading needs in order to reduce the effects of their trading on market volatility.

Should LOR principals not then have been aware of the possibility that their own trading might be increasing the probability for extreme market moves? And should they not then have been aware of, and more frank in disclosing, the potential effects of such movements on their strategy?

An LOR advertising display entitled "What LOR's Sophistication Means" (discussed in the *Wall Street Journal*, January 4, 1988: B4) assured that "all the implications and expectations of the selected strategy are known in advance. No unhappy surprises." Fridson would apparently agree with LOR's assertion; on the basis of his unnamed sources, he concludes that "LOR's pre-1987 presentations were candid in describing the likely impact of greater-than-expected volatility," and seems to believe that users of the product should *not* have been surprised by portfolio insurance's performance during the crash. I am convinced, however, that the evidence in CIMR and the evidence here indicate that LOR's presentations were

not candid, and that users of portfolio insurance (although perhaps not sellers) *were* surprised by its performance on October 19, 1987.

The extent of investor surprise is obvious from the fact that most of the investors who chose portfolio insurance before the crash canceled their insurance programs in the wake of the crash, or failed to renew. The dollar amount of insured assets overall fell by two-thirds between October 1987 and January 1988 (Ring [1988]). More tellingly, the amount of insured assets managed by LOR fell from $54 billion in early 1987 to $8.4 billion in early 1988 to $154 million in early 1989 (according to LOR's ADV filings with the SEC). To my mind, this seems like the reaction of investors who were shocked at the levels of risk they had incurred with portfolio insurance, not like the behavior of investors who were fully aware of and prepared for the risks involved. It is certainly not the reaction of those who found, as LOR had argued, that they would need portfolio insurance even more as markets became more volatile (see, e.g., Leland [1986]).

LOR, Portfolio Insurance, and the 1987 Crash

Fridson [2001] recognizes CIMR's "valid warning that price discontinuities occur more frequently than financial models generally assume," but he fails to see the vital connection between these occurrences and the existence of strategies such as portfolio insurance. I remain baffled that there exist market observers who still do not see the contribution of portfolio insurance to the 1987 crash. This seems to me one of the least controversial assertions of CIMR. It was a primary finding of the Brady Commission, established to investigate the 1987 crash, that portfolio insurance played an important role in the crash.

What's more, I believe that its role was aided and abetted by the lack of disclosure that characterized the marketing efforts of LOR. Rather than the full disclosure called for in SEC v. Capital Gains Research Bureau, Inc., LOR seemed to follow a philosophy of *caveat emptor* in its advertising. I believe that LOR's overreaching marketing and their failure to disclose potential problems with the strategy created a faddish demand for portfolio insurance, leading to $100 billion in "insured" assets by the fall of 1987. The enormous magnitude of required insurance selling on October 19, 1987, turned what might have been a modest correction into a crash even greater than the Great Crash of 1929. This was exactly what the disclosure standards under 206 were designed to protect against.

Even LOR principals Leland and Rubinstein now admit that portfolio insurance contributed to the crash. Rubinstein has said (see Kolman [1999]): ". . . the portfolios that were being 'insured' in 1987 were so large that it was impossible to sell enough futures in such a short period of time to keep the portfolio insurance strategy on track. . . . The ironic thing in our case was that our very strategy may have been the vehicle that helped create a new situation in which an extreme event could occur."

According to Leland (in Burton [1997], p. 24): "...as more people found [portfolio insurance] . . . attractive and we got more assets under management, we began to worry whether we were going to have an impact on prices. When we started, we never believed we would ever be big enough to have an effect. As it turned out, we became quite large. By the Crash of 1987, the best estimates were that $100 billion of assets were protected by portfolio insurance. . . We had something to do with the crash’s magnitude."

Continuing Relevance

In his postscript, Fridson declares the story of portfolio insurance a "dead letter." Why should we care about all of this? Because, as CIMR makes clear, portfolio insurance, the concepts behind it and the methods by which it was "sold," are still alive and poised to damage markets today.

The postscript mentions Long-Term Capital Management, but not its underlying similarities to portfolio insurance (which are discussed at length in CIMR). These include the concentration of significant amounts of investment assets in strategies marketed (in the case of LTCM, as a hedge

fund, on a private basis) as offering high returns for very little risk; the dependence of the strategies on arbitrage conditions, and their failure when these conditions disintegrate; and the effects of forced selling by these strategies on overall market volatility. There are risks to investors and markets associated with similar strategies at play in markets today, including the dynamic hedging of option instruments.

A major thread linking all these strategies is the way in which they are marketed to potential investors. Specifically, portfolio insurance and derivatives such as OTC puts are generally portrayed as instruments for reducing a portfolio's market risk. LTCM's arbitrage strategies were also perceived as "low risk." Investors are understandably drawn to strategies that seem to offer a free lunch. The strategy may be portfolio insurance (see Jacobs [1998]; Kolman [2000]); highly leveraged, "low risk" arbitrage (see Jacobs [1999]); even e-trading (see Jacobs [2000]). What CIMR makes clear, however, is that, under certain market conditions, these strategies are anything but low risk; in fact, they can actually create additional market risk in the form of excess volatility. This excess volatility can lead to market crashes and to systemic economic risk.

If we are to have any hope of mitigating the ill effects of these strategies on markets and investors, full and candid disclosure of their real risks is imperative. *Capital Ideas and Market Realities* aims at just such disclosure. Fridson's postscript, by contrast, serves only as the latest brick in a wall of denial the purveyors of portfolio insurance and others have built up over the years in an attempt to prevent just such disclosure (see CIMR chapters "Alibis I: The U.S. Crash" and "Alibis II: Across Time and Space"). As such, it does a severe disservice not only to my book, but to investors generally.

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