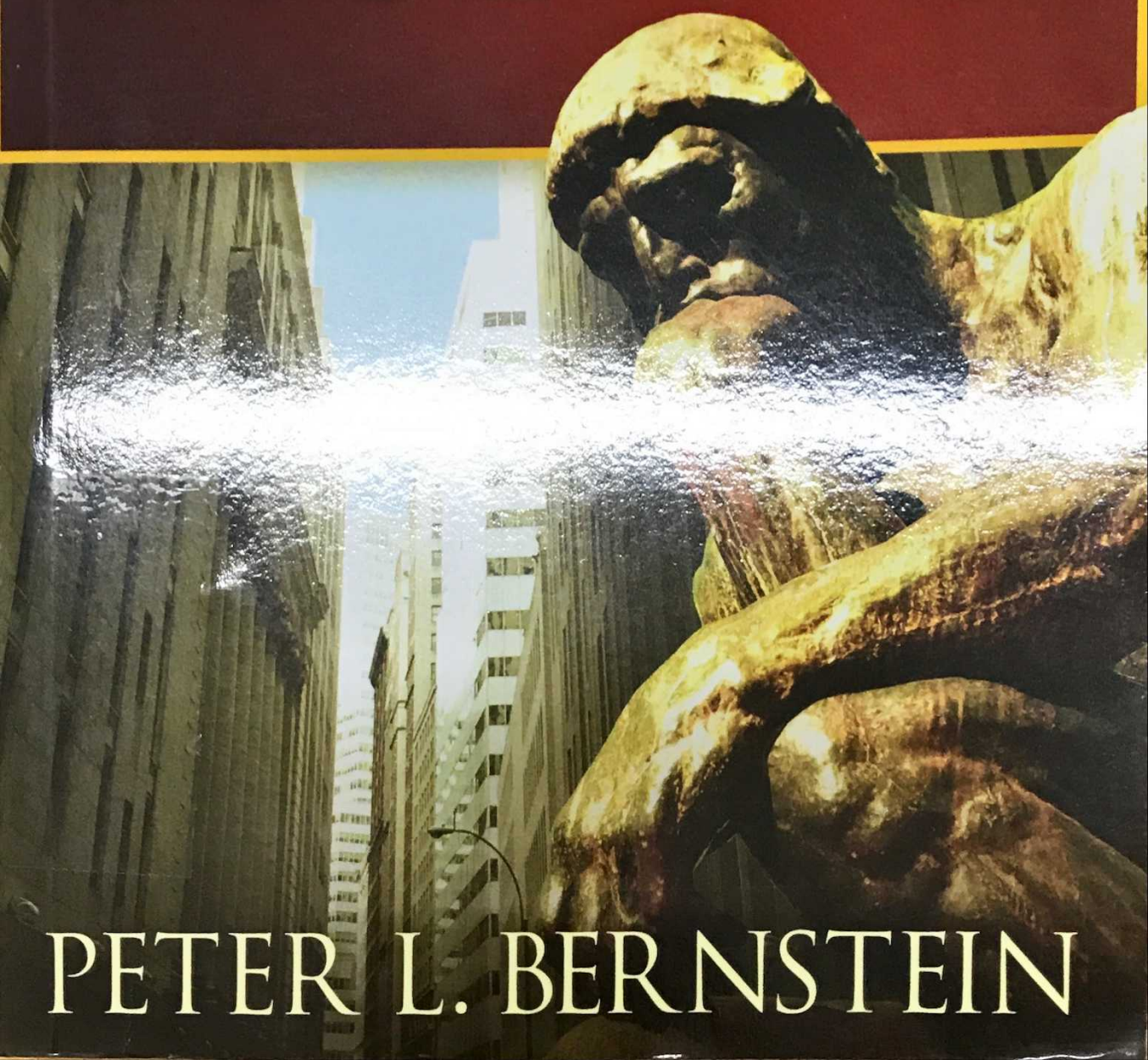


# CAPITAL IDEAS EVOLVING



PETER L. BERNSTEIN

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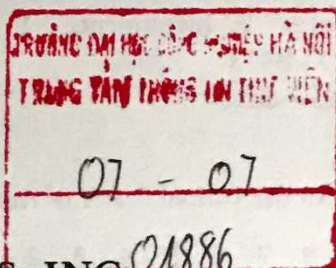


PETER L. BERNSTEIN



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# Preface

Theorists can always resist facts; for facts are hard to establish and are always changing anyway, and *ceteris paribus* can be made to absorb a good deal of punishment. Inevitably, at the earliest opportunity, the mind slips back into the old grooves of thought since analysis is utterly impossible without a frame of reference, a way of thinking about things, or, in short, a theory.

Paul A. Samuelson, "Lord Keynes and the General Theory,"  
*Economica* 14 (1946), pp. 187–199

We make models to abstract reality. But there is a meta-model beyond the model that assures us that the model will eventually fail. Models fail because they fail to incorporate the inter-relationships that exist in the real world.

Myron Scholes, speech at NYU/IXIS conference  
on hedge funds, New York, September 2005

**T**he revolution in the theory and practice of investing that swept over Wall Street during the last three decades of the twentieth century had been carried out by scholars toiling in the ivory towers, far away from the heart of the financial world in New York City. Hence, the improbable origins of modern Wall Street, the subtitle of *Capital Ideas*, the book I published in 1992 and the prequel to the book you are now reading.

But the products of those improbable origins have been evolving for over three decades. Today, the concepts described in *Capital Ideas* are conventional wisdom, from Wall Street to financial centers all around the world. Beginning with the simple notion that risk is at the center of all investment decisions, that diversification is essential to successful investing, and that markets are hard to beat, the *Capital Ideas*—the products of

the ivory towers (and also known as “neoclassical finance”)—are now the intellectual core of a myriad of powerful innovations in active investing and in risk management.

These innovations involve concepts and tools no one could have conceived of in the old days. When I originally wrote *Capital Ideas* from 1989 to 1991, the fascination was with the wonders of passive management and the disturbing implications of the efficient market. Today, as we shall see in the pages that follow, even the theorists of *Capital Ideas* are at work in the capital market. Some are seeking new methods of active management and searching for alpha while others are applying their theoretical ideas to the problems of financing retirement or enhancing the fairness and efficiency of the markets.\* All, in one way or another, are exploring the frontiers of risk management.

As *Capital Ideas* have moved down these paths from the ivory tower to the computer room, both form and function continue to undergo radical changes. This process of change is what this book, *Capital Ideas Evolving*, is about.



Consider the contrast between today’s world and when I was writing *Capital Ideas* from 1989 to 1991. Much of the theory was unpalatable to an investing environment where people saw no hurdle in beating the market, never calibrated risk, and valued options on the back of an envelope. The initial response of many investors to the introduction of these uncomfortable and mathematically rooted theories in the 1970s and 1980s was to reject them as “baloney.” Risk was an incidental matter. In *A Random Walk Down Wall Street*, Burt Malkiel has recalled that the reception of Efficient Market Theory “was greeted in some Wall Street quarters with as much enthusiasm as Saddam Hussein addressing a meeting of B’nai Brith.” Burt informs me the ninth edition of *A Random Walk Down Wall Street* shifts the metaphor to “with as much enthusiasm as Jeff Skilling addressing the Better Business Bureau.”

Nevertheless, I wanted my book to include some examples of practical applications of the *Capital Ideas* I was describing, in order to make

\*“Alpha” refers to returns in excess of the returns of a benchmark such as the S&P 500, after adjustment for risk. Subsequent chapters expand upon this compressed explanation.

these theoretical advances credible to the wider audience I hoped to reach. After a good deal of scrounging around, I could come up with only three actual, hands-on cases of putting the new theoretical structure to work. There was nobody else I could find at that moment.

The first practical example was Wells Fargo Bank, where many of the creators of Capital Ideas were helping out as consultants. But Wells Fargo was struggling to find customers for its index funds and risk-controlled asset management—and it made no money at it for a matter of years. I will always remember Jim Vertin telling me about “pushin’ that rock uphill.” Nevertheless, as I asserted in *Capital Ideas*, “It was they who truly brought the gown to town.” Chapter 10 of this book shows how well time has justified that observation.

The second case study was Barr Rosenberg. Barr, then still an academic, was developing what was probably the first viable variation on the theme of the Capital Asset Pricing Model in the form of factor analysis, but he was also carrying out hugely popular seminars at Pebble Beach to indoctrinate practitioners in the intricacies of market efficiency, mean/variance, the Capital Asset Pricing Model, and the theory of options pricing. Without Barr’s powerful effort, the whole process of making Capital Ideas both comprehensible and acceptable to professional investors would surely have been more protracted. He deserves far more credit than he has received for these accomplishments.

Portfolio insurance was the third example of applying theory to practice. Hayne Leland of the University of California at Berkeley had concocted this product when he went on a search for what he boldly described to me as “the ultimate invention”—a real-life version of Merton’s replicating portfolio for a put option on the market.\* For a brief period, as portfolio insurance became all the rage, it looked as though Leland had achieved his dream. Then came the jumbo crash of October 19, 1987, when stock prices fell over 20 percent in one day, and portfolio insurance crashed along with the market.

But that was then. In contrast to *Capital Ideas*, this book is almost completely about the implementation of theory and only incidentally about the development of new theory.

\*Just incidentally, in relation to how transactions costs on October 19 nearly buried portfolio insurance, Bob Merton has pointed out to me the wonderful paradox that there would be no Black-Scholes-Merton option pricing model without transactions costs. Transactions costs make the replicating portfolio impractical and options irreplaceable.