Jacobs Levy Equity Management Center
for Quantitative Financial Research

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2017 Wharton-Jacobs Levy Prize Remarks
Bruce Jacobs, Ph.D., Advisory Board Chair, Jacobs Levy Center
Ken Levy, Advisory Board, Jacobs Levy Center

Ken Levy:

Thank you, Chris and Mike.

Steve Ross passed away, too early. But his contributions to finance, as a teacher, a practitioner, and an innovator, live on, continuing to enrich the profession. Among the many gifts Steve left us, Arbitrage Pricing Theory stands out both in terms of its significant effects on the profession and as an exemplar of his insightful and rigorous way of thinking.

Steve was barely out of graduate school when he first proposed Arbitrage Pricing Theory in his 1976 article entitled “The Arbitrage Theory of Capital Pricing.” It would become part of the foundation of modern asset pricing and would inspire, among other things, the current popularity of factor investing. By the time that paper was published, Steve had already produced another major work on agency theory, opening up a new field of economic research into the conflicting incentives of principals and their agents.

He would go on, over a career that spans more than 100 publications, to author or co-author an astonishing number of influential theories and models that are integral components of today’s financial world. These include the theory of risk-neutral pricing, the binomial options pricing model, models of the term structure of interest rates and, most recently, recovery theory, which allows us to forecast the probability distribution of security returns from option prices.

The volume of his work is exceeded only by the value of his work.

Given the practical importance of Steve’s research and the widespread use of his models and theories, it is no surprise that he was in great demand as a consultant and advisor to financial services firms, corporations, and government agencies.

Yet somehow he also found the time to write books on corporate finance and neoclassical finance, to manage money for clients, and to inspire so many students as a professor at the Wharton School, Yale, and MIT.

We’re proud that Arbitrage Pricing Theory began as a working paper at Wharton, where Steve was a professor of economics and finance. It is very fitting that we are recognizing this monumental contribution with the Wharton-Jacobs Levy Prize, not only because of his past connection to the school, but also because his innovative work truly embodies the essence of what the prize represents, namely, rigor, insight, and practicality.

Bruce Jacobs:

The Wharton-Jacobs Levy Prize for Quantitative Financial Innovation recognizes outstanding quantitative research that has contributed to an important innovation in the practice of finance. When Ken and I established this biennial award in 2011, it was our hope that over time the recipients would constitute an elite group of scholars and practitioners who have had a transformative impact on finance. The first two prize recipients, Harry Markowitz in 2013 and Bill Sharpe in 2015, certainly fit that description. Today’s honoree, Steve Ross, stands shoulder-to-shoulder with both of them.

Steve’s work on Arbitrage Pricing Theory, which is being honored today, began in the 1970s when he was a young professor at Wharton. Back then, like many in the field, he struggled to reconcile the insights of the premier pricing model of the time, the Capital Asset Pricing Model, with some of its limitations—not the least of which was that it hinged on a single risk factor, namely beta.

Steve’s elegant solution was to create the first multi-factor model in finance. It recognized an asset’s sensitivity not only to market beta, but also to unanticipated changes in interest rates, inflation, and other economic variables. The Capital Asset Pricing Model implied that all investors should hold the same global market portfolio. On the other hand, Arbitrage Pricing Theory implied that investors’ optimal portfolios would vary depending on their individual risk profiles and expectations.

And most importantly, it did not require the strong assumption of human rationality that pricing models typically rely upon. That opened up asset pricing theory to a world in which mispricing can occur—and even be exploited—before being arbitraged by market forces.

Many asset-pricing models have followed in the wake of APT, but APT still towers above them all. We are proud to award the Wharton-Jacobs Levy Prize to Steve in recognition of his transformative accomplishments.

When I spoke to Steve and informed him about winning the Prize, he was delighted. While we are saddened that he is no longer with us, his work and his spirit live on. We are very pleased to be able to share our deep respect and admiration for Steve with his wife, Carol.

Carol, would you do us the honor of accepting the Prize medal.