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What if: The Strange History of the Theory of Finance

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The collection of theoretical ideas sometimes known as Modern Portfolio Theory, or what I call Capital Ideas, was composed by a dozen or so men over a period of just 21 years, starting with Harry Markowitz's "Portfolio Selection" in 1952 and ending with the publication of the Black-Scholes-Merton option pricing model in 1973. There was no such thing as finance theory before 1952, and there has been no meaningful addition to the theory of finance since 1973. In the late 1980s, when I began interviews for my book, *Capital Ideas,* all these men were still alive and available to talk with me. Nothing in the history of ideas comes close to matching that bunching of theoretical innovation.

Before I go on to support that assertion, a brief overview is appropriate. Every member of this group worked in the ivory towers, far from the tumults of Wall Street. Some of them had never owned a share of stock when they did their most important theoretical work. Yet these Capital Ideas continue to reverberate in the financial markets of today and in the world of portfolio management in more ways than any of these men could possibly have predicted. Indeed, all the survivors in that group are now active, implementing theory in the real world of capital markets and investing.

Let me recount how this bunching of theoretical innovation in such a short period of time is unique in intellectual history. Consider, for example, the history of astronomy and gravity, broadly conceived. There were 169 years between the birth of Copernicus and the birth of Isaac Newton and 237 years between Newton's birth and Einstein's. That means a span of 406 years from Copernicus to Einstein. Not much opportunity for interchange of ideas among these enormously important innovators!

Overlaps are more frequent in economics, but close relationships have been rare. Economics, as we know it, was launched in 1776 with Adam Smith's Wealth of Nations. David Ricardo was born a few years earlier, in 1772, and was only 18 when Smith died in 1790. Ricardo and Malthus did overlap and were close friends. Ricardo died in 1823, while Malthus died nine years later in 1834. At that point, John Stuart Mill, who was born in 1806, was 28 years old. Mill overlapped with Alfred Marshall, who was born in 1842, but Mill was past his prime by the time Marshall was productive. Marshall, 41 years senior to John Maynard Keynes, was Keynes's teacher at Cambridge, but he had been dead for 12 years when Keynes published his masterpiece, *The General Theory of Employment, Interest, and Money,* in 1936 (and probably a good thing, too, because Keynes is harsh on his old master in this book).

Thus, 160 years would pass between the publication of *Wealth of Nations* and *The General Theory.* There was nothing during that long span of time to match the clustering of innovative theoretical ideas among a tiny group of scholars during the 21 years between 1952 and 1973.

The story of finance theory has another twist. At any point, the line of succession could have been broken, including at the very start. Harry Markowitz's interest was in operations research. He applied it to investing only after he happened to strike up a conversation with a stock broker. Bill Sharpe's primary interest had been in transfer pricing—the way corporations price internal transactions—until Markowitz lured him into asset pricing. Eugene Fama had planned to teach French and play football and baseball. If Fischer Black had not discovered finance as a result of meeting Jack Treynor at Arthur D. Little, this whole story might have had a very different ending. Myron Scholes turned down a chance to go into his family's publishing business, while Bob Merton, a mathematician first of all, was lucky enough to work as a research assistant to Paul Samuelson, for whom finance was a hobby he referred to as "Sunday painting."

If any one of these individuals had stayed with his original interests instead of yielding to the siren call of finance, the way we work today and the research areas we pursue might look very different from what is actually the case. This Journal might never have come into being in 1974, and the *Financial Analysts Journal* would still be the dull stuff of the days before the 1970s, when it finally woke up.