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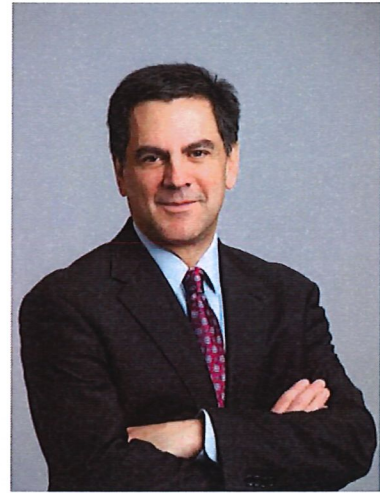
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Partner Talk®

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Luck and Choice, A Tribute

Paul D. Snitzer
psnitzer@prudentmanagement.com



On October 27, 1996, I met at my wedding a formidable woman from Montreal, my 84-year-old grandmother-in-law, Berta. To the best of my memory I spoke that day to Berta eye-to-eye just once: she cupped my cheeks with both of her hands and said with great force: “Good luck Paul, you are going to need it.” Her words puzzled me but, in the excitement of the day, I pushed them out of my mind, temporarily. Later I wondered, was she casting aspersions on me, or the institution of marriage, because, after all, normally when you tell someone this about luck you are suggesting none too subtly, that they are not up to the task. Only later, over time, did I realize that Berta was not casting aspersions, instead, she knew that she had that one moment to tell me a great lesson of her life, and she was not a woman to miss her chance. Having been born in Berlin, then fled Germany to Belgium in 1938, then trapped in Belgium after the German blitzkrieg, then through great courage -- her own and of the Sisters who hid her in their Convent -- having survived the ensuing four years, saving also the life of her infant son, she had learned a frightening lesson, not about brutality, but that good fortune is randomly and unevenly spread among humanity. In such a world, good luck is something we all need!

Berta died on September 23, 2019, age 107; one week earlier, on September 15, I spoke at my own father’s funeral, and began with these words: “My father always said that he was lucky.”

Legendary investor Warren Buffett also thought about luck in 2019, writing in his annual report that Americans “are lucky — gloriously lucky” to enjoy the fruits of our “country’s almost unbelievable prosperity.” This essential truth is part of what my father meant when he said he was lucky, we are indeed “gloriously lucky” compared to many other billions of people living elsewhere on the planet (to quantify, almost 96% of humanity was born outside of the United States), and to virtually everyone who lived anywhere on earth at any time in the past.

However, life is not solely about luck, but also about choice. This truth is revealed most starkly in Berta's story of survival – hid by Nuns who provided sanctuary to her although surrounded by an unparalleled military that ruthlessly communicated to its captured peoples that their survival required strict obedience. Yet these Sisters opted to defy, not to obey, and to risk their lives to save strangers of a different faith. Neither Berta nor the Nuns chose their time/place of birth or to be in the circumstances they faced in 1941, yet neither allowed this horrendous luck to strip them of their agency. Instead, they made choices under conditions of great uncertainty.

The eminent financial writer Peter Bernstein recognized this truth about life in his book, *Against the Gods, The Remarkable Story of Risk*. After spending 230 pages describing the development of probability theory and statistical analysis, which he describes as “the most powerful tool of risk management ever to be invented,” Bernstein acknowledged that these tools cannot eliminate uncertainty. Moreover, it is this uncertainty that in fact enables people to act freely: people are “not obliged to accept” the “cards we are dealt, we are free souls” struggling to find our way “out of the darkness” and our “decisions matter.”

This human ability to make choices under uncertainty after evaluating the risks is an essential story of humanity, according to Bernstein. When humans learned to see the future as depending on more than a whim that moment “define[d] the boundary between modern times and the past.” His book is a history of each side of this boundary and covers the development over the last 350 or so years of core concepts of probability theory, including the law of large numbers; the normal distribution of independent variables (known as the “bell curve”); standard deviation; regression to the mean; correlation and more.*

Towards the end he turns to modern financial theory, developed primarily in the American academy, beginning with a paper by Harry Markowitz on “*Portfolio Selection*.” This paper “put a number on,” i.e., quantified, “investment risk” through the use of standard deviation analysis. “Its key insight” was also that the “best weapon” against investment risk as quantified is “the strategic role of diversification.” This insight led Markowitz to “transform traditional stock picking” into “what he termed ‘efficient’ portfolios.” The “efficient portfolios” created through this quantification of risk would minimize risk by an analysis of the interrelationships of the portfolio's parts to each other, and not by a focus solely on the riskiness of each investment (i.e., portfolio level riskiness would depend on the correlations of all holdings to each other), while also providing the best possible overall portfolio return given the risk taken. Importantly, by “efficient portfolio” Markowitz did not mean that there is only one efficient portfolio and no choices to be made by the investor, to the contrary his method produced a “menu” of portfolios which offered different costs (risk) and benefits (returns). How much more cost for more benefits on a continuum any investor would select as desirable is the only point “in which gut matters.”

In a subsequent book by Bernstein, *Capital Ideas*, he described Markowitz's paper as setting forth the “most famous insight in the history of modern finance and investment.” These insights

* Bernstein brings this history alive by providing short and tart biographies of the people who made these discoveries. Edmund Halley, for example, a “child genius in astronomy,” in 1693 used meticulous birth and death records from an obscure town to create actuarial tables. He showed how to use the tables to estimate life expectancy and how to “reckon the price of insuring lives.” The life-insurance industry “built up the data base it uses today” from these ideas (Halley also identified 24 comets including the eponymous one; he persuaded Newton to publish a book setting forth the laws of gravity and paid the costs for doing so).

“formed the foundation for all subsequent theories on how financial markets work, how risk can be quantified.” For this he won the Nobel prize in economics. He also formed a lasting relationship with PMA’s other co-founder, Marshall Blume, also lost to us in 2019, and in both of their honors we include with this cover letter a note Markowitz handwrote to Dr. Blume on the inside cover of Markowitz’s 2014 book, *Risk-Return Analysis*.

Some of these ideas may sound familiar to PMA clients, because, in fact, PMA uses methods derived from them to help each client make an essential choice when they begin investing through PMA – how much risk to take in the efficient portfolios which PMA strives to create. PMA prepares for each client a so-called “risk document” which offers to the client the opportunity to select what level of risk the client will assume in a PMA portfolio: the choices are -- from most risk (and highest expected return) to least -- all equity, substantial risk, moderate risk or low risk. Within the exhibit PMA includes a graph for each risk bucket showing the “expected annual return” for the selection, with a high point and low point indicated in a range, for both a one- and five-year period. Importantly, although these ranges are derived from complex mathematical formulas, those formulas, like all formulas, depend on certain assumptions made by humans and do not and cannot, as Bernstein reminded us, eliminate all uncertainty. Thus while PMA’s best determination is that there is a very high chance that returns will fall within the indicated range in any given year, the document also acknowledges that there is a smaller chance, around 5%, that the return “will be less than the low outcome.”

Critically, therefore, PMA’s risk document does not make a certain prediction about the future, rather it uses probability analysis and statistical tools, combined with human judgment, to make an estimate about what is most likely to occur. PMA’s long held belief, in agreement with Bernstein, is that this type of probability analysis does quite a lot in terms of risk management, and that doing more, such as making an absolute prediction with 100% certainty about what will happen in the future in the markets, or in any other similarly complex human endeavor, is an impossibility.[†]

Any readers seeking an interesting summary of Bernstein’s ideas would do well to consult an article he wrote in Harvard Business Review in 1996, titled *The New Religion of Risk Management*, available here: <https://hbr.org/1996/03/the-new-religion-of-risk-management>.

As this cover letter makes clear, and as our clients, friends, colleagues and many others know, 2019 was a difficult year for those of us at PMA. Nevertheless, everyone at PMA knows that we were lucky to have the opportunity to work for so long with Ed Snitzer and Marshall Blume and are also lucky to have the opportunity to continue their work. We intend to do so following the principles they instilled in us and in the firm over the course of its 37 year life, and as a tribute to both of them.

[†] Harvard Professor, public intellectual and polymath, Steven Pinker, when asked in 2009 by the New York Times to identify the most important scientific concept that lay people fail to understand, responded: “Statistical reasoning. A difficulty in grasping probability underlies fallacies from medical quackery and stock-market scams to misinterpreting sex differences and the theory of evolution.” Former New York Times writer and founder of the Five-Thirty Eight website, Nate Silver, wrote in his 2012 book, *The Signal and the Noise*, that “we must become more comfortable with probability and uncertainty.” The idea that there are “no-lose bets” is an “illusion of the sucker”; instead the future must be thought of “in terms of a series of probabilistic beliefs or forecasts.”

"[Markowitz] may have had a greater influence on current theories of finance and investing than any other living person."
—NEW YORK TIMES

THE THEORY AND PRACTICE
OF RATIONAL INVESTING

RISK-
RETURN
ANALYSIS

VOLUME I

HARRY M. MARKOWITZ

WINNER OF THE NOBEL PRIZE IN ECONOMICS
AND FOUNDER OF MODERN PORTFOLIO THEORY

WITH KENNETH A. BLAY

For Marshall Blume:

Dear Marshall,

I still have warm memories of my days at Wharton. I have my students read your articles. Many thanks for your friendly ideas for all these many years.

Best wishes,

Harry Markowitz