Thinking About Risk II

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September 2019

Twenty-five years ago, as TIFF was establishing itself under the leadership of David Salem, its first President and Chief Investment Officer, he was thinking a great deal about risk. At the same time, as was often the case, David was thinking about another of his passions, baseball. When he put these two trains of thought together in 1994, the result was a memorable speech delivered to a group of endowment managers, which we published on the TIFF website earlier this year: 25 Years Ago at TIFF. If you haven't had the opportunity to read it, we think you'll find it quite interesting. Has anything changed in 25 years? The purpose of this companion article is to answer that question. Within, we'll reflect on what has changed since David's initial brainstorm and what has remained true in the world of investing, and in its tailor-made counterpart of baseball.

David recognized that, among sports, baseball holds the best analogues to and sometimes lessons for investing. Baseball success and failure depend on subtle differences among different portfolios of players and subtle decisions made by their managers, the impact of which is highly unpredictable in a given game or series but is telling over the course of a season or multiple seasons. Small differences in baseball's highly precise, three-figure batting and earned-run averages are only meaningful over the thousands of swings and pitches of full seasons, but inevitably they determine which team wins and which loses. The same is true of the relative performance of investment portfolios.

One significant change over the past 25 years has occurred because our understanding of the causes of these subtle difference-making variations has become much more detailed and competitively important. Both baseball and investing have entered the Age of Analytics. Access to detailed performance data and a more robust ability to analyze the impact of subtle differences on outcomes have in some ways revolutionized both pursuits. Powerful computers and software advances have made many of these new analytics possible. In baseball, the traditional batting and earned-run average have been subsumed in a host of new metrics such as OPS, BABIP and, of course, WAR[1]. High-speed cameras scrutinize "exit velocity" off the bat and pitch rotation, as it is no longer enough to know simply whether a pitch is swung at and missed or hit out of the park but rather how the player's actions led to that outcome and whether it is reproducible.

Similarly, investors regularly search data for the impact of factors such as momentum or volatility that were generally given little consideration 25 years ago. It is not enough to know that an investment outcome was good or bad with some frequency. Now, we try to understand why it

[1] On-base plus slugging percentage (OPS), batting average on balls in play (BABIP), wins above replacement (WAR)

worked out as it did and what the likelihood is of that underlying cause creating the same outcome in the future. We also try to determine the extent to which the return derives from reproducible decisions by an investment manager, as opposed to a "lucky swing."

In this Age of Analytics, we have an ability and willingness to try new strategies dictated by these new observations. Baseball, for example, now has the previously unknown "shift," where the shortstop decamps to shallow right field when a batter has been observed to hit there regularly, and the "opener," a pitcher who faces three batters before the traditional starting pitcher takes the field, because observers have measured that the best batters have greater success in a game the more they come to bat against the same pitcher. Similarly, investment strategies such as factor-based investing or high-frequency trading, previously little known or largely inaccessible, have proliferated, and investors' access to and comfort with them has grown. Investors have adopted these strategies not only because of empirical back-testing but more importantly because investors believe they can measure and understand the underlying mechanisms that make them work reproducibly, such as the harvesting of pricing discrepancies in high-frequency strategies. These new strategies have given the baseball manager and the portfolio manager effective new options and have also increased the effort required to combine them optimally. Moreover, data analysis has also increased our scrutiny of managers, as we are not satisfied with "how much" but increasingly demand to know the "why" behind investment returns.

A very simple but powerful example of this effect is the focus on the cost of investing. Expenses and fees, of course, have always been important, and the concept of extreme low-cost investing dates back at least to John Bogle and the invention of indexing over 40 years ago. It is only more recently, however, that investors have focused on carefully measuring and understanding the relationship of alpha, or returns beyond those of the broad market, to investment fees. In baseball, the author Michael Lewis, an investor by training, identified the rise of Moneyball, the data-driven assessment of a player's production with respect to his overall cost to the team. This perspective on player value has revolutionized player evaluation and team (i.e., portfolio) construction. In the investment world, low-cost investing and indexing have revolutionized asset allocation as the passive end of the active-passive market spectrum has become well understood and highly accessible to investors, increasing the options for portfolio managers.

Indeed, the focus on fees has become so strong that many investors have decided that passive investing is the most efficient and, therefore, the best solution. In our view, while indexing is a useful new tool for some investors under certain circumstances, at least two of the tenets of investing articulated by David 25 years ago remain valid today: the value of active management and the need to take enough risk to achieve one's investment objectives.

Regarding active management, TIFF believes that careful data-based assessment can demonstrate the value of paying for high-performing strategies, even as the same analysis shows the value of indexing in strategies where the potential for outperformance by active management is low. Fees that pay for and motivate managers to produce sufficiently high performance can be fully justified via careful analysis of net performance. Similarly, the Moneyball era has resulted in the best players being paid even more, relative to lower-skilled players, than they were in previous eras, because the data supports their exceptional value. Rosters are made up of diverse mixes of low- and high-paid players, each with a net value that contributes to the team's success. We believe an optimal portfolio similarly mixes lower and higher fee strategies as the potential net return of each dictates.

The core of David's speech, in our view, is as relevant today as when it was first delivered. In 1994, he said: "*Many investors have been so conditioned to examine carefully the risks inherent in each investment that they make — to make sure that their downside is tolerable — that they ignore entirely or give short shrift to the important question of whether their upside is adequate… I would encourage you to consider very carefully the risks inherent in every opportunity that comes your way, not to make sure that these risks are sufficiently low but rather to make sure that they're sufficiently high.*" Put another way, investors must take enough risk to give themselves a chance of achieving their goals.

Unlike baseball, endowment investing is not a one-season game primarily scored against the returns of peers or benchmarks (not that we don't keep a close eye on them…). While the Investment Committees of some non-profits focus intensively on maximizing returns or minimizing fees over finite time periods, they might find greater advantage in simply trying to maximize their chances of achieving their overarching mission-driven target over time—in other words, defining success as the ability to perpetually fund their missions. When we engage with TIFF's member organizations we typically ask:

- What return is required to meet your goals, from near-term distributions to long-term corpus growth?
- What liquidity is required to meet these goals, from annual distributions to one-off capital expenditures and emergency reserves?
- What is your time horizon and tolerance for downside risk within that timeframe, in terms of temporarily falling short of required return or liquidity?

Their answers define their investment goals.

Based on our analysis, we believe that a typical endowment goal — for example, a goal of returning CPI + 5% — cannot be met over time by a portfolio primarily composed of passive, index-like investments. While the relative downside risk of passive investments against typical passive benchmarks is low, we assess the long-term return potential of index investing to be insufficient, based on the conditions and trends we see today. We at TIFF believe that, even with generally higher fees and tighter liquidity requirements relative to index funds, superior active managers have greater net return potential and should be a significant part of most endowment portfolios. Superior active managers are not easy to find, but putting in the work to identify them and then taking the risk of investing with them is required to provide a chance to meet these goals. Baseball rosters are now intelligently populated with more cost-efficient players as appropriate, but it remains true as in the early days of TIFF that to be a winner requires above-average players and some highly compensated stars.

While investing and baseball have evolved over the last quarter century, they certainly remain recognizable. The Age of Analytics has raised the bar for management and opened new perspectives and investment strategies. At the same time, excellent active management and risk taking to gain small but persistent advantages that play out over time remain requirements for success in each. Both are long games requiring daily attention, but in which skill is only proven over multiple market cycles.

About TIFF

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