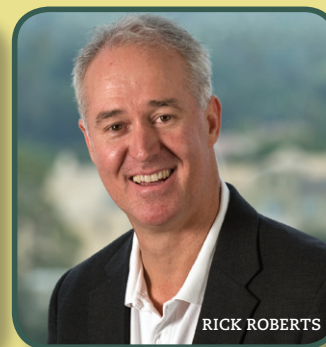


A Matter of DNA



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PHOTOGRAPHY BY MICHAEL JUSTICE

First Quadrant and the evolution of the search for risk-controlled alpha

First Quadrant, based in Pasadena, California, has a two-decade history of innovation in the quantitative investment arena and runs \$27 billion in various quantitative strategies for its institutional clients. The firm has been a consistent pioneer in the search for alpha, and moved into short-extension strategies as a natural evolution from its earlier work in market-neutral strategies. PLANSPONSOR talked to two of the firm's executives—Nelson Wicas, Director of Global Equities, and Rick Roberts, Partner—about the firm's approach to short-extension investing, and when and how it makes sense for institutional investors.

PS: The essence of a short-extension strategy, from a manager standpoint, is it enables an investment process that can profit from both positive and negative ideas. From an institutional investment standpoint, how should these strategies be regarded?

Wicas: Most institutions these days are looking to create risk-controlled portfolios that will outperform a specific benchmark. The inherent cost of fees and the efficiencies of some asset classes have led to many plans adopting indexed strategies to provide the performance floor, and then looking elsewhere for their alpha. That search for alpha has resulted in a whole variety of approaches, and we look at short-extension strategies as a natural iteration—and, at this time, the most advanced evolution—of these approaches. If done well, it will produce more alpha, and more consistent alpha.

PS: From which asset allocation bucket is the funding for these strategies coming?

Roberts: Most of the activity that we have seen has come from the reallocation of active risk from indexed portfolios, specifically from large-cap indexed portfolios and from long-only strategies that may have been underperforming. To a much lesser extent, I believe, there are some plans shifting funds from fixed-income allocations to short-extension strategies.

Wicas: Again, this is part of an evolution—in this case, a continuation of a trend away from pure indexing to enhanced indexing to short extension.

PS: Are these state-of-the-art short-extension strategies applicable to any benchmark?

Wicas: Benchmarks dominated by large-cap stocks favor short-extension strategies. For a long-only portfolio, the underweights associated with negative bets are limited to a zero

weight. For a large-cap name, a zero weight could represent a 1% or more underweight relative to the benchmark. For a small-cap name, a zero weight could represent a 20 bp or less underweight relative to the benchmark. This example demonstrates that, for a large-cap-dominated benchmark, a short extension permits similar size underweights across the capitalization spectrum.

Shorting can be limited by the availability of names to borrow and by the borrowing costs. Borrowing costs could rise sufficiently to offset potential excess return expected from selling a stock short. As a practical matter, borrowing costs are lower and the availability of names to borrow to sell short is greater among large-capitalization stocks.

Markets that are very efficient also limit the value of short-extension strategies since managers are less likely to receive excess return on their bets. In general, the large-cap segment of the market, the portion of the market where shorting is cheapest and most liquid, coincides with the most efficient part of the market where excess return is least likely.

Additionally, investors ought to keep in mind that, in the future, as AUM for short-extension strategies increases, the pool of liquid shorts could be constrained, limiting the feasibility of a short-extension strategy.

PS: Why would a plan sponsor choose to employ a short-extension strategy rather than a long/short market-neutral portable alpha strategy?

Wicas: In order to express a preference between the two, one must first acknowledge several points. First, plan sponsors have learned to seek uncorrelated alphas when choosing asset managers. Based on their particular objectives, these plan sponsors have chosen and should continue to choose any or all of these approaches to reach those goals; however, there will be preferences based on objectives. In order to express a preference for short-extension strategies, one must believe that alpha exists in stock selection. While this alpha in stock selection ultimately applies to both short-extension and market-neutral strategies, cost does become a factor—the cost of implementing a short-extension strategy is lower. Implementing short-extension strategies using multiple managers also may diversify active risk and create alpha all on its own. In addition, short-extension strategies will continue to be popular as long as capitalization-weighted benchmarks dominate the investment landscape—

as a result, there exists a high degree of inefficiency that the portfolio construction technique exploits.

Finally, utilizing a short-extension strategy allows alpha to be created by making decisions within the same universe of securities from which market exposure is being gained. In a portable alpha strategy, market exposure is gained from futures, and bets to produce excess return may be placed on a different universe. Short-extension strategies more efficiently provide market exposure where liquid futures contracts or swaps may not. Plan sponsors with an aversion to derivatives and leverage also may take a closer look at short-extension strategies since those are not utilized.

PS: Is there an optimal level of short extension?

Wicas: Most simulations show that the optimal level of short extension varies across managers and is anticipated to level off at around the 120/20 to 140/40 range. In general, there are a number of considerations to determine the appropriate level of short extension. First, does a manager have skill in selecting securities? For quant managers, skill is typically referred to as “signal quality” and is usually measured by the correlation between signal value and future excess return. High correlation means the signals often yield future excess return. As skill rises, the value of short extension ought to increase.

Second, does the manager have a lot of opportunities to bet? Given the efficiency of markets, most managers have only limited information that is likely to produce future excess return. Having value-relevant information that permits many small bets is more likely to pay off than if a manager only has information for a limited number of securities. This concept is usually referred to as “breadth.” As breadth rises, the value of short extension ought to increase.

Third, can the manager get its information into the portfolio? The correlation between active bets with signal value for each stock is the typical measure of the manager’s ability to translate its information into investment results. This measure typically rises with some short extension, but the rise is less dramatic as the level of short extension increases.

Roberts: There are additional factors that affect the best level of short extension. Short-extension strategies generally have more turnover, and the value of short extension declines as transaction costs rise. As security risk rises, especially idiosyncratic risk, both long and short bets are more likely to prove unfavorable, decreasing the value of short extension since short extension amplifies active return.

PS: The first substantial implementers of short-extension strategies were quantitative managers but, now, managers of every stripe—including fundamental managers—are broadcasting their capabilities to manage short-extension strategies. How does First Quadrant separate itself from the pack?

Roberts: This is part of the firm’s DNA—we have a rich history here of managing long/short equity and long/short derivative strategies that encapsulate the essence of the short-extension strategies now coming to the market. First Quadrant has been a pioneer in the search for alpha on both the long and the short side—again, this is a natural evolution for us. For many other managers, this is uncharted territory.

Wicas: At First Quadrant, we have shown that we have conviction in our ideas, and the net result of that is a high

correlation between our ranking of a security and its future excess return. Second, there is the issue of breadth, and that is a competitive advantage we share with other quantitative managers versus more traditional stock-pickers. Third, there is the issue of implementation and your ability to translate your signal, or your opinion, on a security into the portfolio—again, quantitative managers have decades more experience building optimized risk-control portfolios. Finally, there is expertise in terms of managing a short portfolio that has come from more than 15 years implementing long-short market-neutral strategies. These are the characteristics that separate First Quadrant from the pack.

Roberts: We believe the broad acceptance of short-extension strategies has led to higher fees across the spectrum. However, we don’t believe these strategies merit hedge fund-like fees. Rather, higher costs, greater attention to risk control, and a materially improved information ratio justifies a premium, but that does not warrant a high base fee coupled with a 20% incentive fee.

PS: One criticism that is made of quantitative managers in this recent market cycle is that they all marched in lockstep, and all equally underperformed in 2008 in particular.

Roberts: You do hear that, but that unfairly and narrowly characterizes all of the quantitative managers’ experience. Broadly speaking, the group underperformed in 2007. More relevant, dispersion in performance was wide, and some traditional managers also materially underperformed. In 2008, dispersion is also wide, but it is too soon to judge the peer group. Upon closer reflection, however, outsized underperformance did expose the value in one’s risk controls. I am gratified to say our strategies performed well inside expectations, and continue to do so today.

Wicas: I think innovation is critical here—all the successful managers that pioneered new strategies were characterized by their ability to innovate. Most quantitative managers have struggled to build new signals that have the necessary statistical rigor, that aren’t exposed to unexpected risk factors, and that produce an enduring and consistent alpha. The last few years have shown us how very few firms in fact got this right. It has been a revelation.

Roberts: Right—the last few years in fact showed us that many of the quantitative approaches had distinct signal risk and manager risk associated with them. The best quantitative managers have been spurred to identify new data sources, and that is where we have concentrated our efforts, alongside an ability to think about new ways of using the information we already have. Again, it comes back to each firm’s DNA, and I would argue that, right now, there is a real premium to be found with those firms that have a history of innovation. This is not a time for business as usual.

PS: What is the next frontier for short-extension strategies?

Wicas: As is the case with other strategies, the future is about global short-extension strategies. While this can complicate things from a benchmark standpoint, there is considerably more inefficiency on a global scale, and that can be captured in an optimal fashion on a global as opposed to regional basis. There is a tremendous benefit to be had in diversifying your quantitative portfolio globally in a short-extension framework.