Investment Strategy: Strategy-Based Portfolio Construction

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Classifying funds based on their investing strategies instead of via the traditional style grid presents a new way to look at diversification.

The first article in this series introduced the concept and benefits of using investment strategy as an alternative to the style grid for forming active equity mutual fund peer groups. As presented in that article, evaluating funds in terms of self-declared strategy provides a powerful framework for constructing and managing equity portfolios. This article presents specifics on how this can be accomplished.

Strategy Diversification

A popular approach for active equity portfolio construction is to diversify across the style grid by investing in a small-cap value fund, a large-cap growth fund and so on for the nine or more style boxes. Strategy diversification is a similar concept in that you invest in funds pursuing different strategies.

Strategies provide superior diversification relative to style boxes as demonstrated in this study which details a series of tests comparing the two frameworks. A successful formation of active equity fund peer groups should have the lowest across-group-return correlations and the highest-within-group correlations, which leads to:

1) the greatest diversification when investing in funds from different groups, and
2) funds within a peer group all employing a similar investment strategy.

Portfolio Diversification

Forming peer groups based on self-declared strategy outperforms style box peer groups on both dimensions.

The cross-fund correlation tests conducted demonstrate that forming peer groups based on self-declared strategy outperforms style box peer groups on both dimensions. That is, when classifying funds by strategies there is higher correlation within each strategy (reflecting commonality) and lower correlation between each strategy (reflecting differences) relative to the correlation data within and between style box categories.

Building a Strategy-Diverse Portfolio

A straightforward way to build a strategy-diverse portfolio is to select a fund from each of the 10 strategies, but this approach can be improved upon by examining each strategy's historical performance as summarized in the table below.

US Strategy Statistics: 1980-2017

		Return	STD Dev	Count*
FUTURE GROWTH	Fg	13.0	16.7	349
COMPETITIVE POSITION	Cp	11.9	14.3	697
OPPORTUNITY	O	11.2	12.9	105
QUANTITATIVE	Q	11.0	14.7	111
VALUATION	V	10.9	13.2	710
PROFITABILITY	P	10.8	14.4	59
SOCIAL CONSIDERATIONS	Sc	9.6	14.1	70
MARKET CONDISTIONS	Mc	9.2	15.5	26
ECONOMIC CONDITIONS	Ec	9.2	13.5	81
RISK	R	7.0	18.5	83
S&P 500		11.8	14.2	-
			Total	**2,291**

* As of March 2018, ignoring share classes

Sources: Morningstar and AthenaInvest.

As shown, strategies have performed quite differently over time, with Future Growth delivering the best returns at 13% annually and Risk the worst, underperforming Future growth by 6%. Based on these return differences, it does not make sense to invest in all 10 strategies. We recommend limiting fund portfolios to the top six strategies: Future Growth and Competitive Position, which are the two that have outperformed the S&P 500, along with Opportunity, Quantitative, Valuation and Profitability, each performing within 1% of the market.

This leaves out Social Considerations, Market Conditions, Economic Conditions and Risk, which have all unperformed by more than 2%. Some may prefer social impact investing, and if something other than returns is a criterion, then a Social Considerations fund could be included.

Market and Economic Conditions funds are not attractive because the information upon which these are managed is likely already captured in equity prices. Consistent with this notion, their underperformance roughly equals the average fees charged by funds.

Risk is puzzling. These funds state they manage short-term volatility and drawdown, with return as a secondary consideration. In the latter sense, they have succeeded as they underperform the market by nearly 5%. More perplexing is that Risk is 30% more volatile than the market and earns a substantially lower return. While Risk has a strong negative rank correlation with most other strategies, it is unlikely that this diversification benefit is enough to offset the undesirable combination of higher volatility and lower return.

Deeper Dive

So, looking historically, how do strategies perform over the business cycle? The results are ranked from best to worst in the table below.

Business Cycle Strategy Performance Ranks (% of months)
Based on NBER Turning Points from 1980-2017

Expansion (76%)	Year Prior to Recession (10%)	Recession (14%)
Future Growth	Market Conditions	Risk
Competitive Position	Quantitative	Future Growth
Profitability	Valuation	Opportunity
Opportunity	Future Growth	Quantitative
Quantitative	Social Considerations	Competitive Position
Valuation	Competitive Position	Valuation
Social Considerations	Opportunity	Economic Conditions
Economic Conditions	Profitability	Social Considerations
Market Conditions	Economic Conditions	Profitability
Risk	Risk	Market Conditions

Sources: National Bureau of Economic Research, Morningstar, and AthenaInvest.

Over this nearly 40-year time period, the economy expanded 76% of the months and was in one of five recessions 14% of the months. The year prior to a recession represented 10% of the months. For the expansion months, strategy performance ranks are similar to the long-term ranks reported in the earlier table.

Future Growth, Competitive Position, Quantitative and Valuation, shown in green, are among the top six performers regardless of where we are in the business cycle. There is a case for including these four strategies as core investments in any active equity fund portfolio. One could easily argue for including Opportunity and Profitability, also shown in green, as strategic investments as well. These six strategies make up nearly 90% of U.S. active equity mutual funds, so avoiding the bottom four strategies excludes roughly 10% of available funds.

The four bottom-ranked strategies, shown in red, move up in rank only sparingly. Market Conditions and Risk are at the top in the prior year and recession months, respectively. Economic Conditions is the only strategy that never makes it into the top six.

Since it is difficult to forecast an upcoming economic downturn, there is a good argument for not including Social Considerations, Economic Conditions, Market Conditions and Risk in a properly diversified active equity portfolio. Later in this series we'll show that strategies may be used for tactical allocation, and short-term ranks are useful for estimating expected market returns.

Upcoming Article

We proposed in this article constructing a strategic active equity portfolio of six strategies. The issue of which fund to select in each strategy will be addressed in the next article. As a preview, funds that consistently pursue a narrowly defined strategy and take high-conviction positions are the most attractive candidates in each strategy.

About the author

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C. Thomas Howard is the co-founder, chief investment officer, and Director of Research at AthenaInvest. Building upon the Nobel Prize winning research of Daniel Kahneman, Howard is a pioneer in the application of behavioral finance for investment management. He is a professor emeritus at the Reiman School of Finance, Daniels College of Business, University of Denver, where he taught courses and published articles in the areas of investment management and international finance. He is the author of Behavioral Portfolio Management. Howard holds a BS in mechanical engineering from the University of Idaho, an MS in management science from Oregon State University, and a PhD in finance from the University of Washington.

Important notes and citations