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Broader opportunities, same limited results: An analysis of 'go-anywhere funds'

Vanguard research

January 2014

Executive summary. The number of funds classified by Morningstar as “flexible asset allocation” rose from 61 in January 1998 to 110 as of June 30, 2013. Total assets for this group of funds—also known as “unconstrained,” “absolute-return,” or “go-anywhere funds”—rose from about \$60 billion to \$356 billion over the same period, as global go-anywhere fund strategies generated increased investor interest, moving beyond an institutional niche market to retail markets as well.

The appeal of go-anywhere funds is that a manager is able to seek returns from a wide range of sources, without any strict style, regional, sector, market-cap, or other constraints. This provides a broader opportunity set and also can enhance a portfolio’s diversification. But, do the funds offer superior performance?

Performance evaluation of these funds can be challenging because of their varied asset allocations, which make it difficult to determine an appropriate benchmark for them. This paper takes up the performance-evaluation

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challenge by testing five distinct evaluation techniques for go-anywhere funds over the period January 1998–June 2013. Regardless of the test used, we found no excess returns, or *alpha*, on average, during the analysis period.¹ As has been the case with other active strategies, the majority of the funds underperformed, net of costs, implying that even with a broader opportunity set, consistent alpha is rare.

The number of “go-anywhere” (that is, flexible asset allocation) mutual funds and their total assets have increased substantially over the nearly 15 years from January 1, 1998, through June 30, 2013 (see Figure 1). Go-anywhere funds present unique opportunities and challenges for fund managers and investors alike. Because managers of these funds are able to seek returns from a wide range of sources, without style, regional, sector, market-cap, or other constraints, they have a broader opportunity set from which to select investments. But, for investors, this broad opportunity set also makes performance evaluation and benchmark identification more difficult than for conventional funds. Likewise, this can create challenges for managers who must analyze and select securities across multiple asset classes and countries.

To overcome these difficulties, we conducted an analysis of go-anywhere funds using a range of tests to examine the funds’ performance and to explore

whether the additional opportunities led to better results. We first compared fund performance against both a passive 60% equity/40% bond benchmark and the funds’ stated benchmarks. Then we compared fund performance against “truer” benchmarks, which we derived using two different approaches: style analysis and factor regression. Finally, we compared the funds to traditional active balance funds.

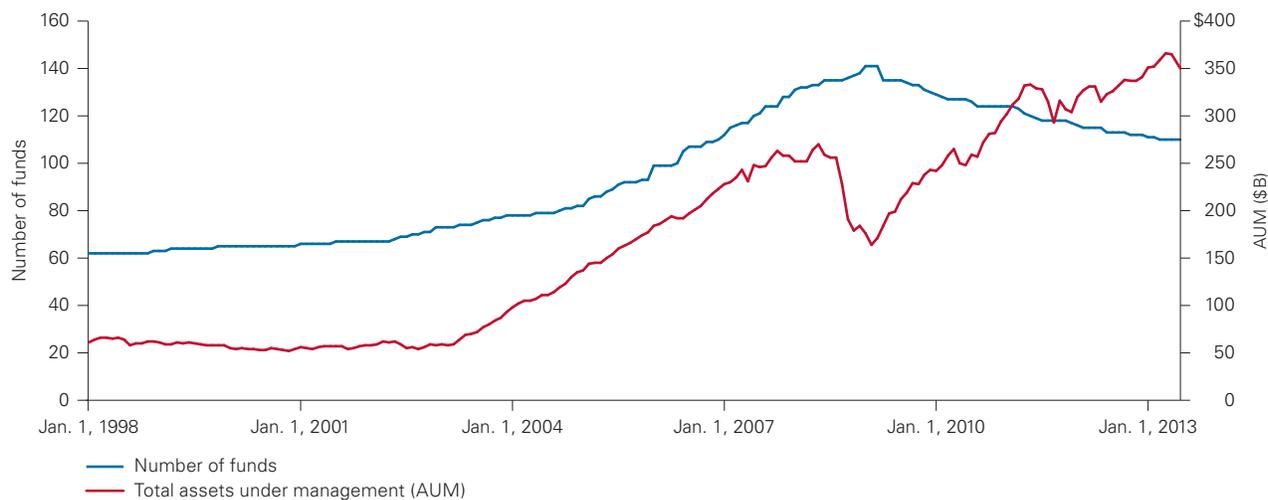
Regardless of the type of analysis used, we found no excess returns or alpha relative to the stated or implied benchmarks for go-anywhere funds as a group over the period January 1, 1998–June 30, 2013.

The majority of these funds underperformed, which contradicts the common assumption that a broader opportunity set translates into a higher likelihood of outperformance. It also supports findings of other Vanguard research demonstrating the difficulty of active management in general and the fact that, in practice, reality can quickly diverge from theory (see, for example, Wallick, Wimmer, and Martielli, 2013).

Notes on risk: All investing is subject to risk, including the possible loss of the money you invest. Investments in bonds are subject to interest rate, credit, and inflation risk. Investments in stocks and bonds issued by non-U.S. companies are subject to risks including country/regional risk and currency risk. These risks are especially high in emerging markets. Diversification does not ensure a profit or protect against a loss. Please remember that all investments involve some risk. Be aware that fluctuations in the financial markets and other factors may cause declines in the value of your account. There is no guarantee that any particular asset allocation or mix of funds will meet your investment objectives or provide you with a given level of income. Past performance is no guarantee of future returns.

¹ In this paper, *excess return* refers to a fund’s return versus its stated or implied benchmark; *alpha* refers to a fund’s risk-adjusted excess return versus its stated or implied benchmark.

Figure 1. Growth in go-anywhere funds and assets: January 1, 1998–June 30, 2013



Sources: Vanguard calculations, using data from Morningstar, Inc., for all funds categorized by Morningstar as “flexible asset allocation.”

Five performance tests based on benchmarks and other characteristics

Because go-anywhere fund allocations are dynamic and less constrained, determining appropriate benchmarks for the funds is challenging. As a result, we used a number of approaches to evaluate their performance:

- Evaluation I—Versus a passive 60% equity/40% bond benchmark.
- Evaluation II—Versus the funds’ stated benchmarks.
- Evaluation III—Using style analysis.
- Evaluation IV—Using risk-factor regression.
- Evaluation V—Versus traditional active balanced funds.

All evaluations were calculated using monthly fund returns based on an equal-weighted index of all go-anywhere funds in existence for at least 36 months over the analysis period: January 1, 1998–June 30, 2013.² Performance evaluations I and II provided information on the aggregate universe of go-anywhere funds and on how they compared to a typical or stated benchmark. We considered relative

performance and dispersion, but we did not adjust for risk. Evaluation I was relative to a simple diversified portfolio comprising 60% broad-market equity/40% broad-market bonds. Evaluation II compared go-anywhere fund results relative to their stated benchmarks. The official benchmarks for these funds are quite varied and often do not incorporate similar sector, asset-class, or country constraints as the funds themselves. For example, many funds with allocations to various asset classes including stocks, bonds, and alternatives cited a bond market or even a cash index as their official benchmark. Likewise, many global funds had U.S. benchmarks such as the Standard & Poor’s 500 Index or the Russell 3000 Index. Thus, this benchmark comparison was not enlightening in terms of the funds’ performance versus actual risk exposure.

Next, we addressed the biggest challenge in evaluating go-anywhere funds, that of identifying their relevant or true benchmark and determining whether the funds produced alpha versus it. Evaluation III used a style-analysis approach to glean asset allocations. For an equal-weighted index of go-anywhere funds, we determined the set of asset-class exposures that minimized the variance

² We also analyzed asset-weighted returns over the same period and found similar results.

Figure 2. Go-anywhere funds' monthly excess returns/alpha: January 1, 1998–June 30, 2013 (Evaluations I–IV)



Notes: All fund returns used in this analysis are net of expenses. The 60% equity/40% bond passive portfolio comprises: Barclays U.S. Aggregate Bond Index (32%), Barclays Global Aggregate Index Hedged USD (8%), MSCI World Index ex US (18%), and Spliced Total Stock Market Index (42%, made up of Dow Jones U.S. Total Stock Market Index—formerly known as Dow Jones Wilshire 5000 Index—through April 22, 2005; MSCI US Broad Market Index through June 2, 2013; and CRSP U.S. Total Market Index thereafter). “Stated benchmark” is as cited in Morningstar. Indexes used in the style analysis are: Citigroup 3-Month U.S. T-Bill Index, Barclays U.S. Aggregate Bond Index, Barclays Global Aggregate Bond Index, MSCI World Index ex USA, Russell 2000 Index, Russell 1000 Index, Dow Jones-UBS Commodity Index Total Return, and Gold Bullion (London Bullion Market, USD). The risk factors included in factor analysis are: market, size, value, momentum, credit spread, and term spread.

Source: Vanguard.

in the difference between the funds’ returns and the return of a passive exposure to each style. We applied the style analysis to rolling 36-month returns. Asset classes included were: cash, U.S. bonds, non-U.S. bonds, non-U.S. equity, U.S. equity (small-, mid- and large-capitalization), commodities, and gold. To estimate alpha, we compared actual fund returns “out of sample” (one-year forward) with the returns from the passive allocations in the style analysis. We intentionally estimated alpha out of sample to avoid penalizing the fund manager for intentional over- or underweights.³

Evaluation IV used a risk-factor model to estimate alpha on the go-anywhere funds over the same period. Factor models employ a simple linear regression approach to identify sources of return. Results reveal the portion of return attributable to the risk factors and to the residual return component, or alpha. We regressed monthly

returns of an equal-weighted index of go-anywhere funds on the following risk factors: market, size, value, momentum, credit spread, and term spread.⁴

Figure 2 shows the distribution of results for excess returns (that is, the difference between the benchmark’s return and that of the fund) and alpha (that is, risk-adjusted excess return) for Evaluations I–IV for January 1, 1998–June 30, 2013. *Median excess returns and alphas were negative for each approach.* Relative to a passive 60% equity/40% bond benchmark, the median monthly excess return of the go-anywhere funds was –0.11%. Even compared with the official fund benchmark, the median monthly excess return was –0.04%. Likewise, relative to benchmarks reflective of their risk exposure, we found that go-anywhere funds produced zero excess return over this period. Median alpha was effectively zero for both the style analysis and risk-factor analysis. We note that the overall distribution of alpha for the go-anywhere funds was wide, with a few extreme outliers in the tails.

³ For details on our style-analysis methodology, see Appendix II.

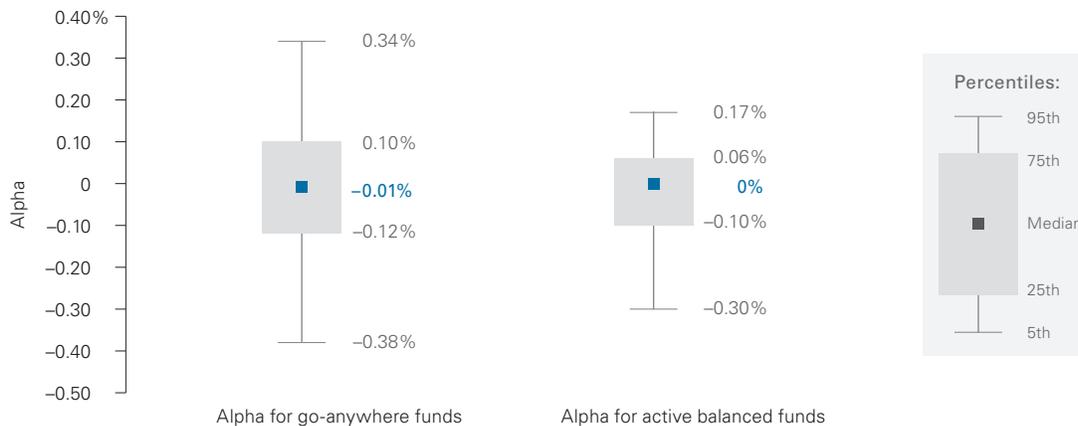
⁴ For details on our risk-factor methodology, see Appendix II.

Figure 3. Comparing results of go-anywhere funds with those of traditional active balanced funds: January 1, 1998–June 30, 2013

a. Risk-factor analysis

	Active balanced versus go-anywhere funds						
	R-squared	Market	Size	Style	Momentum	Credit	Duration
Go-anywhere funds (beta)	0.74	0.46	-0.03	0.05	0.00	0.27	0.15
Active balanced (beta)	0.89	0.56	-0.01	0.02	0.00	0.17	0.14
Go-anywhere funds (t-statistic)		14.32	-0.51	1.34	-0.26	3.62	2.99
Active balanced (t-statistic)		24.02	-0.72	1.04	-0.24	3.97	1.22

b. Monthly alpha from factor analysis



Notes: Analysis is based on equal-weighted average monthly returns for all active balanced funds and go-anywhere funds in existence for at least 36 months during the analysis period: January 1, 1998–June 30, 2013. In the analysis, *R-squared* is a measure of how much of a fund's past returns can be explained by the returns from a given index; *beta* is a measure of a fund's volatility relative to a benchmark; *t-statistic* is the ratio of the estimated parameter to its estimated standard error, used to determine how probable it is that the true value of the parameter is zero.

Source: Vanguard.

Evaluation V: Comparing go-anywhere funds with traditional active balanced funds

Our fifth test of relative performance compared results of go-anywhere funds with those of traditional active balanced funds to get a sense of whether go-anywhere funds deserved all their recent attention. In other words, were their risk-adjusted returns any different, or any better, than the returns of a more constrained active balanced fund? Using the same approach described earlier, we conducted a risk-factor analysis of traditional balanced funds and compared the results with those for the go-anywhere funds. Risk-factor results (that is,

betas—statistical results that are effectively a measurement of the impact of each factor) are presented in **Figure 3a**. These results show that the risk exposure was similar over the period, on average, for both go-anywhere funds and traditional active, balanced funds. The largest differences were for credit risk and market risk, in which go-anywhere funds had a 10-basis-point over- and underweighting, respectively, relative to the traditional funds. In aggregate, the overweighting did not pay off, however; as shown in **Figure 3b**, go-anywhere funds had a slightly lower median excess return and a wider distribution of monthly alpha than a traditional active balance fund.

Conclusion

Over the past 15 years, go-anywhere funds have generated considerable interest and assets as investors have sought better performance. Unfortunately, however, the majority of investors in these funds appear to have been unsuccessful in their quest. The funds' appeal is that a manager is able to seek returns from a broad range of sources with limited constraints on allocations. Although greater opportunity is often seen as equating to higher returns, this, of course, does not take into account the skill needed to capitalize on that opportunity. The majority of go-anywhere funds underperformed from January 1, 1998, through June 30, 2013, relative not only to a 60% equity/40% bond passive allocation but to their stated benchmark and a traditional active balanced fund. Likewise, even when compared against more appropriate benchmarks as determined by style analysis and factor regression, the majority of go-anywhere funds have produced an alpha of less than 0%, on average. Thus, it appears that even with a broader opportunity set, consistent alpha is rare.

References

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Appendix I. Overview of go-anywhere funds for the analysis period

Given the dynamic and unconstrained nature of go-anywhere funds, we conducted additional analyses to try to determine what the funds looked like in aggregate. The statistics presented here are annualized and based on an equal-weighted index of all funds, over the life of each fund, with each fund in existence at least 36 months during the analysis period: January 1, 1998–June 30, 2013. On average, flexible allocation funds have lower returns and volatility than long-term broad-market stocks but higher returns and volatility than long-term broad-market bonds, (see **Figure A-1**).

With respect to the return distribution of our analysis, skew (that is, the degree to which returns are distributed asymmetrically around the average) was negative. As shown in **Figure A-2**, a relatively small number of funds had very negative returns, indicating a long left-side tail in the distribution.⁵ For reference, broad equity-market returns were also nonnormal—but go-anywhere funds have higher negative skew.⁶

We conducted style analysis on the fund returns to identify their asset-class exposure (see **Figures A-3** and **A-4**). As these figures show, although the sub-asset allocations of the funds varied over time, for the majority of the analysis period go-anywhere funds were about 46% equity, 46% fixed income, and 8% alternatives, with little variation through time for the universe as a whole.⁷ We note that average R-squared for this analysis was 98%, confirming that we adequately captured the risk exposures.

⁵ The four negative outliers shown in Figure A-2 had average returns of less than –9% and were from one fund firm.

⁶ For broad-market (monthly) equity returns for the period 1960–2012, skew equaled –0.51. For FAFs for the period January 1, 1998 –June 30, 2013, skew equaled –0.80.

⁷ Style-analysis regressions were based on average monthly lifetime returns for all Morningstar-identified “flexible asset allocation” funds in existence for at least 36 months during the analysis period: January 1, 1998–June 30, 2013. For details on our style-analysis methodology, see Appendix II.

Figure A-1. Go-anywhere funds' annualized risk-return statistics: January 1, 1998–June 30, 2013

Percentile	Return	Volatility	Absolute return/volatility
5th	-2.66%	4.15%	0.09
10th	-0.97	5.36	0.14
50th	4.74	10.91	0.46
75th	6.62	12.84	0.67
95th	8.39	15.24	0.94

Figure A-2. Go-anywhere funds' annualized risk-return scatter plot: January 1, 1998–June 30, 2013

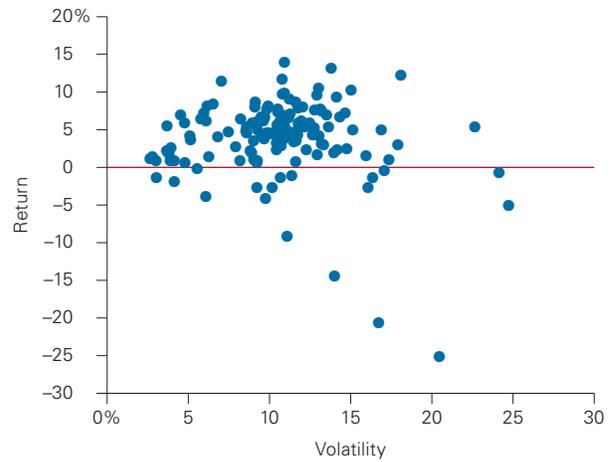


Figure A-3. Go-anywhere funds style analysis: Sub-asset allocation, January 1, 1998–June 30, 2013

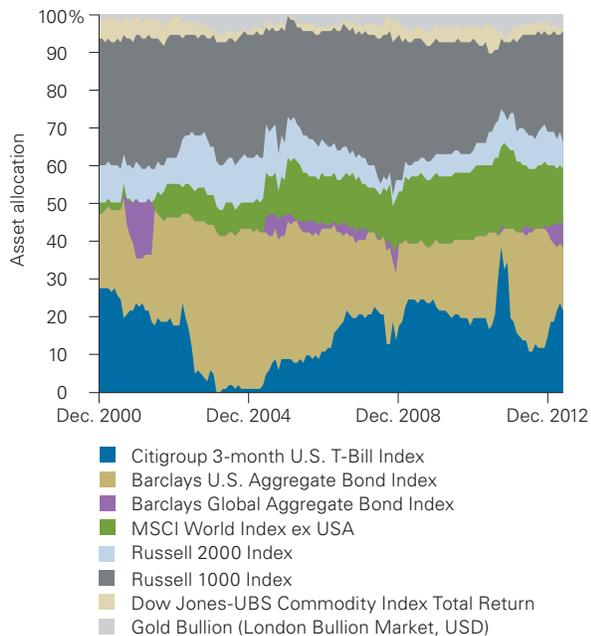
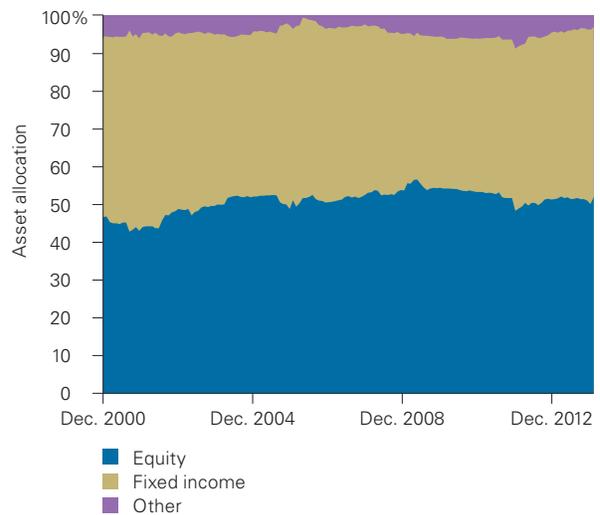


Figure A-4. Go-anywhere funds style analysis: Broad asset allocation, January 1, 1998–June 30, 2013



Notes: Figures A-1 through A-4 use data for all funds categorized by Morningstar as “flexible asset allocation.” A total of 110 “flexible asset allocation” funds met these constraints. Results calculated using monthly fund returns based on an equal-weighted index of all go-anywhere funds in existence for at least 36 months over the analysis period: January 1, 1998–June 30, 2013. Funds analyzed had varied time horizons. In Figure A-1, “Absolute return/volatility” refers to absolute value of return/standard deviation. See Appendix II for details on style-analysis approach used in Figures A-3 and A-4.

Sources: Vanguard calculations, based on data from Morningstar, Inc.

Growth of \$100,000

We also compared the growth of an initial \$100K investment in the 60% equity/40% bonds portfolio versus an average, equal-weighted index of go-anywhere fund returns from January 1, 1998, through June 30, 2013. The FAF index tracked the 60%/40% portfolio fairly closely. This was not surprising, given our style-analysis results, which showed the go-anywhere funds had risk exposure of roughly 46% equity and 46% fixed income (see Figure A-4). There were periods of slight outperformance for these funds, most notably during 2001–2006, when their equity allocations were rising and their cash allocations declining. Average returns from 2001–2006 were higher for the equity index and lower for cash than was the average for these asset classes over the entire analysis period. Also, equity allocations began to rise and cash allocations to drop most rapidly in 2002 for go-anywhere funds, perhaps indicating that those funds avoided some of the 2000–2002 bear market and had some limited success with market-timing. However, go-anywhere funds' allocation changes were not so timely in 2008. Equity allocations peaked for go-anywhere funds at the end of 2008, the worst-performing year for equities over the full analysis period. And again, for the entire period, even without accounting for differences in risk, we found that the go-anywhere fund portfolio underperformed the passive 60%/40% portfolio on a cumulative basis by about \$17K (\$245K versus \$228K).

Appendix II. Style and risk-factor analyses

Style analysis

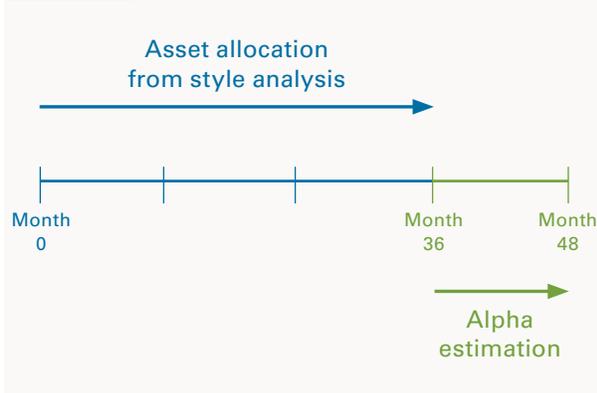
Style analysis uses quadratic programming to determine a fund's exposure to specific asset classes and also to measure alpha. We used the following equation:

$$\tilde{\epsilon}_i = \tilde{R}_i - [b_{i1}\tilde{F}_1 + b_{i2}\tilde{F}_2 + \dots + b_{in}\tilde{F}_n]$$

The specific steps of our approach were as follows:

- First, determine asset allocation from style analysis based on months 1–36.
- Second, calculate the returns to a passive portfolio for months 37–48 from the step-1 allocations.
- Third, calculate actual fund returns for months 37–48.
- Fourth, compare passive returns to fund returns to get alpha.
- Fifth, roll forward 12 months and start again with step 1.
- Continue loop through period end.
(See Figure A-5.)

Figure A-5. Steps in style analysis



Go-anywhere fund returns in our analysis were based on average monthly lifetime performance results for all Morningstar-identified “flexible asset allocation” funds in existence for at least 36 months during the analysis period: January 1, 1998–June 30, 2013. This analysis used the general methodology developed by William F. Sharpe (1992). Indexes used in the style analysis were: Citigroup 3-Month U.S. T-Bill Index, Barclays U.S. Aggregate Bond Index, Barclays Global Aggregate Bond Index, MSCI World Index ex USA, Russell 2000 Index, Russell 1000 Index, Dow Jones-UBS Commodity Index Total Return, and Gold Bullion (London Bullion Market, USD).

Risk-factor analysis

Factor models employ a simple linear regression approach to identify sources of return. Results reveal the portion of return attributable to the risk factors and to the residual component, or alpha. We used the following equation:

$$R_{\text{fund}} - R_{\text{risk-free}} = \alpha + \beta_1 * F_{\text{market}} + \beta_2 * F_{\text{size}} + \beta_3 * F_{\text{value}} + \beta_4 * F_{\text{momentum}} + \beta_5 * F_{\text{credit spread}} + \beta_6 * F_{\text{term spread}} + \epsilon$$

Where

R_{fund} = fund return;

$R_{\text{risk-free}}$ = Citigroup 3-Month U.S. T-Bill Index.

Excess returns regressed on:

Carhart plus Fama/French factors: market, size, value, and momentum;

Credit spread: Return difference between long-term credit and long-term Treasury indexes;

Term spread: Difference between long-term and short-term Treasury.

Go-anywhere funds’ returns in our analysis were based on an unweighted monthly average for all funds in existence at least 36 months.



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