Evoke | ARIS Insights: Risk Parity vs. 60/40 Top Performers

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The enviable title of "conventional balanced portfolio" has long been held by the 60% stock, 40% bond mix. This traditional allocation forms the foundation for investors and professional financial advisors to construct portfolios by allocating to managers across various equity styles and fixed income investments.

We believe a new challenger may be emerging. If 60/40 is considered balanced, then we think Risk Parity potentially represents an ultra-balanced portfolio solution. Improved diversification is achieved by investing across multiple asset classes beyond just equities and intermediate core bonds. Importantly, each asset class is structured to deliver a long-term return (and risk) in line with equities. As a result, Risk Parity should outperform 60/40 over the long run with comparable volatility and potentially more attractive downside protection (because of broader diversification).

In this edition of *ARIS Insights*, we attempt to compare the performance of these two allocation strategies over the past two decades. To give all benefit to the reigning champion, the 60/40 portfolio will consist of the single best performing mutual fund in each of 12 categories (11 equity styles plus the best performing core bond fund). We will call this portfolio "60/40 Top Performers." Considering that there are over 2,700 unique funds with 20+ years of return history, the performance of this portfolio is intended to represent the best-case scenario assuming perfect foresight. To further stack the odds in favor of the 60/40 strategy, we will also assume that the Risk Parity portfolio invests entirely in index funds and we will only compare returns gross of fees (recognizing that 60/40's fees would likely be higher than Risk Parity's). The results may surprise you!

<u>20-Year Performance Comparison</u>

Exhibit 1 lists the single best performing fund in each category over the past 20 years ending December 31, 2019 relative to the respective index returns. Note that a passive 60/40 portfolio would have returned an annualized 5.3% over the 20-year period,[1] while 60/40 Top Performers comfortably outperformed delivering 9.6% per annum (gross of fees). Clearly these returns are in many ways too good to be true since no one actually had the perfect foresight to hold this exact mix.

Exhibit 1: 60/40 Top Performing Funds (2000-2019)

60/40 Allocation	Investment Style	Top Performing Fund	Gross Fund Return	Index Return
8.2%	Large Cap Blend	Parnassus Core Equity (PRBLX)	10.5%	6.3%
8.2%	Large Cap Growth	BlackRock Advantage Lg. Cap Growth (BMCAX)	10.4%	5.2%
8.2%	Large Cap Value	AMG Yacktman Focused (YAFFX)	12.8%	7.0%
2.0%	Mid Cap Blend	Meridian Contrarian Legacy (MVALX)	11.3%	9.0%
2.0%	Mid Cap Growth	Hennessy Focus (HFCSX)	13.7%	6.6%
2.0%	Mid Cap Value	JPMorgan Mid Cap Value (JAMCX)	12.3%	10.0%
0.8%	Small Cap Blend	Hartford Schroders US Small Cap Opps. (SCUIX)	12.1%	7.6%
0.8%	Small Cap Growth	Wasatch Micro Cap (WMICX)	14.9%	5.6%
0.8%	Small Cap Value	Lord Abbett Focused Small Cap Value (LFVAX)	14.0%	9.4%
19.8%	International	First Eagle Overseas (SGOVX)	10.4%	4.4%
7.2%	Emerging Markets	Invesco Oppenheimer Developing Mkt. (ODVYX)	11.9%	6.7%
40.0%	Core Bond	Vanguard Intermediate-Term Bond (VBILX)	5.9%	5.0%
100.0%	**60/40 Top Performers**	**--**	**9.6%**	**5.3%**

Top performing funds generated the highest 20-year annualized return in each investment style as sourced by Bloomberg from 12/31/99 – 12/31/19. The 60/40 Top Performers portfolio allocates 60% to the 11 equity investment styles listed above and 40% to core bonds. ARIS used market segment totals from equity indices (MSCI ACWI, Russell 3000), rebased from 100 to 60, as the weightings for the different equity investment styles. The 60/40 Top Performers return stream is based on weighted attributions from the funds listed above, rebalanced annually. Indices represent industry standards for each investment style and are listed in the back. The index return for the 60/40 Top Performers index represents the MSCI ACWI (60%) and Barclays Aggregate Bond Index (40%), rebalanced annually. Please see the *60/40 Top Performers Disclosure* and the *Fund/Index Disclosure* for detail.

[1] Bloomberg, 60% allocation to MSCI ACWI Index, 40% allocation to Barclays US Aggregate Bond Index, 12/31/99 – 12/31/19.

A risk parity investment philosophy seeks to balance across four diverse asset classes: global equities, commodities (including physical gold), Treasuries and TIPS (Treasury Inflation-Protected Securities). This passive approach to holding a highly diversified portfolio automatically rebalances back to an equal risk weight among these segments once per quarter. In 2014, we published a book on the subject (*Balanced Asset Allocation*) that provides long-term data on this investment strategy since the 1930s. We also created a benchmark called Advanced Research Risk Parity Index that has daily back-tested performance going back to 1998 and most recently launched an exchange traded fund that closely tracks the index.

Interestingly, Risk Parity's returns slightly outpaced 60/40 Top Performers gross of fees over the past two decades: 9.9% versus 9.6%!

How would the number one global tactical asset allocation fund over the 20 years ("Top GTAA") fare versus Risk Parity? These are managers that have flexibility to tactically allocate across securities utilizing their unique insight within a 60/40 framework. They have the experience, expertise and flexibility to navigate volatile markets to potentially avoid the drops and participate in the upswings. The top manager in this category during the past 20 years is Oakmark Equity and Income Fund (OAKBX), which posted an average annualized gross return of 9.6%[2] (which is coincidentally identical to the 60/40 Top Performers). While this is an outstanding return relative to the 60/40 index, Risk Parity outperformed again.

Risk Comparison

Perhaps Risk Parity's historical outperformance is because it takes considerably more risk than 60/40. Risk can be measured in two key ways: 1) volatility, and 2) results during bear markets. Exhibit 2 summarizes the risk of the three portfolios since 2000. Risk Parity not only has comparable long-term volatility as the others, but it has outperformed during historical bear markets. Impressively, Risk Parity has delivered a nearly flat cumulative return during the four worst bear markets over the past two decades. These data points are meaningful because the market downturns since 2000 include some of the worst on record.

Exhibit 2: Risk Comparison

Strategy	Average Volatility (since 2000)	Bear Market Performance				
		Jan. '20 – Mar. '20	May '11 – Sep. '11	Nov. '07 – Feb. '09	Apr. '00 – Sep. '02	Cumulative Bear Market
Risk Parity	**10%**	**-4%**	**+1%**	**-17%**	**+21%**	**-3%**
60/40 Top Performers	8%	-10%	-7%	-25%	+18%	**-26%**
Top GTAA	10%	-22%	-14%	-25%	+25%	**-37%**
60/40 Index	9%	-12%	-11%	-34%	-22%	**-59%**

Data Source: Bloomberg, as of 3/31/20. The Risk Parity strategy represents the Advanced Research Risk Parity Index (RPARTR). The 60/40 Top Performers return stream is based on weighted attributions from the funds listed in Exhibit 1, rebalanced annually. The Top GTAA (global tactical asset allocation) strategy represents the Oakmark Equity and Income Fund (OAKBX). The 60/40 Index represents a 60% allocation to MSCI ACWI Index and a 40% to Barclays US Aggregate Bond Index, rebalanced annually. The Cumulative Bear Market column represents the cumulative performance across all bear market periods listed. Please see the *60/40 Top Performers Disclosure* and the *Fund/Index Disclosure* for more detail.

What Distinguishes Risk Parity Over the Long Run?

How can a passive index outperform a portfolio made up of the single best funds in each category and the number one GTAA active strategy over 20 years? These compelling data points raise the obvious question of why anyone would try to pick outperforming managers when complete prescience still yields underwhelming results. If a compilation of the best can't beat a simple passive portfolio then we believe the average manager is certain to fall way short. And this doesn't even account for

[2] Data Source: Bloomberg, 12/31/99 – 12/31/19.

additional headwinds including fees, taxes (if applicable) and the negative impact from investor behavioral biases (all of which are the subject of the next *ARIS Insights*).

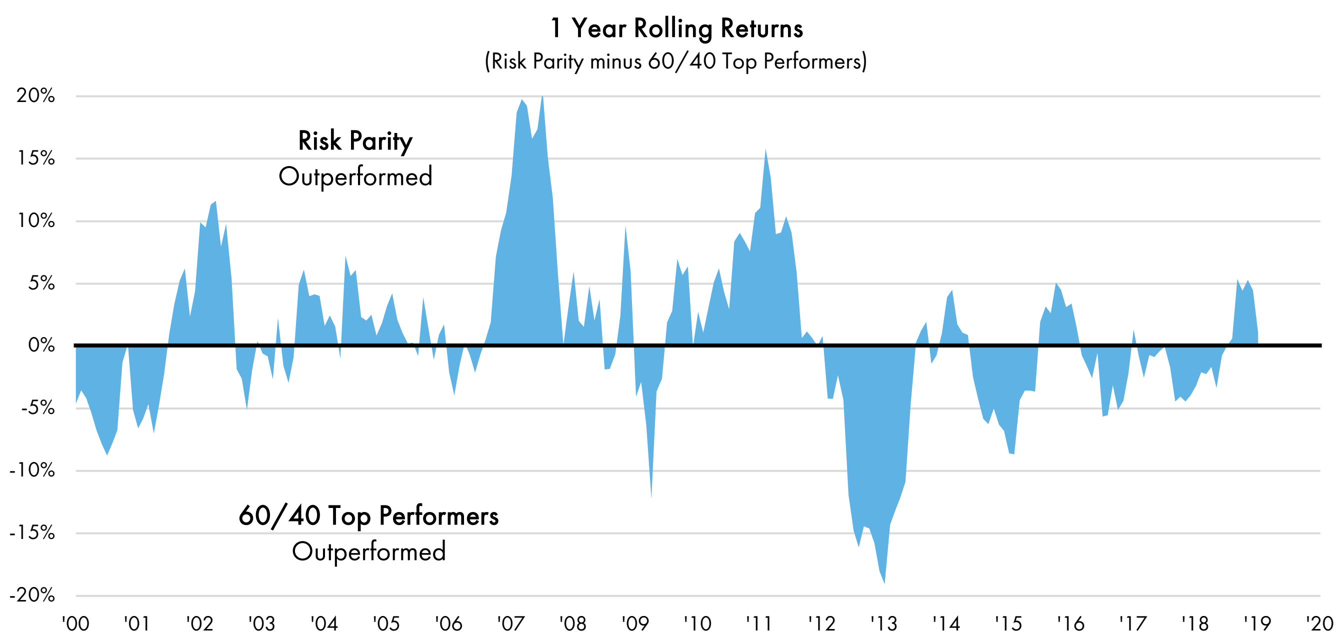
Most importantly, this exercise exposes what we believe is the inefficiency of the 60/40 portfolio framework relative to Risk Parity. The main advantage Risk Parity has over 60/40 is that it is structured to have a higher long-term expected return. Each of Risk Parity's four asset classes is constructed in a way to produce equity-like returns over the long run (and have performed in line with this expectation historically). In contrast, the 40% core bond component of 60/40 has a much lower long-term expected return commensurate with its lower risk profile.

In addition to a long-term return advantage, Risk Parity offers enhanced diversification to better withstand market sell-offs. Losing less on the downturns can meaningfully improve long-term results. The notion that the math disproportionally punishes losses is widely recognized (e.g., a loss of 33% requires a 50% gain to break even). Moreover, Risk Parity is much less likely to experience an extended period of poor results since its success is less dependent on an equity bull market. Consider that equities lost money during the full decade of the 2000s, which posed an insurmountable headwind for portfolios that are heavily weighted to this single asset class.

Risk Parity *Over* Time, But Not *All* the Time

Risk Parity is far from a perfect solution that works all the time. Although Risk Parity may have outperformed relative to certain other strategies over the entire 20 years as discussed above, it would have gone through painful stretches of relative underperformance along the way. Exhibit 3 displays the relative returns of Risk Parity versus 60/40 Top Performers over the full measurement period. The chart provides the rolling 1 year excess return of Risk Parity over 60/40 Top Performers. Positive 1 year rolling returns (shaded above the horizontal 0% axis) represent times when Risk Parity outperformed and negative returns (shaded below the axis) represent times the strategy underperformed.

Exhibit 3: Portfolio Relative Performance (2000-2019)



Data Source: Bloomberg, as of 3/31/20. Risk Parity corresponds to performance for the Advanced Research Risk Parity Index (RPARTR). 60/40 Top Performers corresponds to the weighted return stream based on the allocations and funds listed in the Exhibit 1, rebalanced annually. This chart was created by subtracting the rolling 1 year return for the 60/40 Top Performers from the rolling 1 year return for the Advanced Research Risk Parity Index (RPARTR). See *Fund/Index Disclosures* in back for detail.

Note that Risk Parity trailed 60/40 Top Performers through extended periods and was behind **45% of the time**! This should be expected since no single strategy always outperforms. Included in the measurement period is a challenging time frame during which Risk Parity trailed 60/40 by nearly 20%. Relative underperformance for nearly half the time and by a large margin over extended periods can certainly test one's conviction in the approach.

The Next Decade

As shown in the performance and risk comparisons in this *ARIS* Insights, Risk Parity outpaced 60/40 during the past two decades. How do we think the next decade will fare? If the first quarter of 2020 is any indication, we are in for a wild adventure. We just witnessed one of the worst months in recorded U.S. stock market history as a pandemic struck global markets that was not anticipated by the vast majority of highly skilled, experienced investment managers. The results since January 1 bear this out. The 60/40 Top Performers were down 10.1% in the first quarter of 2020. The Top GTAA fund plunged 22.0%. The Risk Parity Index was only down 4.3%.[3]

Looking ahead, unclear COVID-19 implications, unprecedented economic uncertainty, extreme government stimulus, and growing wealth inequality result in a wide range of future economic conditions and increased risk of extreme outcomes. We can think of no better time to be well balanced within an efficiently managed portfolio.

60/40 TOP PERFOMERS METHODOLOGY:

ARIS evaluated thousands of publicly-traded funds to find the single best performer in each investment style from 12/31/99 – 12/31/19 based on their annualized net-of-fees returns. All funds with a complete 20-year history (across strategy share classes) were included in the universe except for funds that had a minimum investment of $100K and above. The top performing funds were weighted according to their allocations to create the 60/40 Top Performers return stream. Using

[3] Bloomberg, as of 3/31/20.

monthly, gross-of-fees fund data and rebalancing annually, this return stream is used to calculate all performance shown for the 60/40 Top Performers throughout this Insight. All net-of-fees manager returns were sourced from Bloomberg. ARIS removed the net expense ratios (listed in table below) to produce gross-of-fee returns.

The 60/40 allocation represents a 40% allocation to the top performing core bond fund, and a 60% allocation spread across the top performers of 11 equity investment styles (large cap blend, large cap growth, large cap value, mid cap blend, mid cap growth, mid cap value, small cap blend, small cap growth, small cap value, international developed and emerging markets). ARIS used investment style and market segment totals from equity indices (MSCI ACWI, Russell 3000) rebased from 100 to 60 as the weighting for the equity investment styles.

Indices shown do not necessary serve as the benchmark for the top performing fund, rather as an industry standard for the investment style universe. Fund share classes with inceptions after 12/31/99 were backfilled with different share classes for the same strategy. See below all fund/index return and allocation data associated with the exhibits in this Insight.

Alloc.	Investment Style	Top Performing Fund	Net Return 2000-2019	Fees	Index	Index Rtn. 2000-2019
8.2%	Large Cap Blend	Parnassus Core Equity (PRBLX)	9.6%	0.87%	Russell 1000 Index	6.3%
8.2%	Large Cap Growth	BlackRock Advantage Large Cap Growth (BMCAX)	9.5%	0.87%	Russell 1000 Growth Index	5.2%
8.2%	Large Cap Value	AMG Yacktman Focused (YAFFX)	11.5%	1.27%	Russell 1000 Value Index	7.0%
2.0%	Mid Cap Blend	Meridian Contrarian Legacy (MVALX)	10.2%	1.12%	Russell Midcap Index	9.0%
2.0%	Mid Cap Growth	Hennessy Focus (HFCSX)	12.3%	1.47%	Russell Midcap Growth Index	6.6%
2.0%	Mid Cap Value	JPMorgan Mid Cap Value (JAMCX)	11.1%	1.24%	Russell Midcap Value Index	10.0%
0.8%	Small Cap Blend	Hartford Schroders US Small Cap Opps (SCUIX)	10.9%	1.17%	Russell 2000 Index	7.6%
0.8%	Small Cap Growth	Wasatch Micro Cap (WMICX)	13.3%	1.66%	Russell 2000 Growth Index	5.6%
0.8%	Small Cap Value	Lord Abbett Focused Small Cap Value (LFVAX)	12.8%	1.28%	Russell 2000 Value Index	9.4%
19.8%	International	First Eagle Overseas (SGOVX)	9.3%	1.15%	MSCI ACWI Ex US Index	4.4%
7.2%	Emerging Markets	Invesco Oppenheimer Developing Mkts. (ODVYX)	10.9%	1.00%	MSCI Emerging Markets	6.7%
40.0%	Core Bond	Vanguard Intermediate-Term Bond (VBILX)	5.8%	0.07%	BB Barclays US Agg. Bond Index	5.0%
100.0%	60/40 Top Perform.	--	9.6%	-	60% MSCI ACWI Index 40% Barclays US Agg. Bond Index	5.3%

RELEVANT FUND/INDEX DESCRIPTIONS:

The indexes included in this presentation are provided for purposes of comparison only and include dividends and/or interest income. They do not reflect fees or expenses, are unmanaged, and fully invested. There may be no correlation between the performance of any index and any strategies employed by ARIS. The comparison of these strategies' performance to the indexes may be inappropriate because, for instance, their portfolios may not be as diversified and may be more or less volatile than the index, and may include a short portfolio and derivative securities.

Bloomberg Barclays US Aggregate Bond Index: The Bloomberg Barclays US Aggregate Bond Index is a broad-based flagship benchmark that measures the investment grade, US dollar-denominated, fixed-rate taxable bond market. The index includes Treasuries, government-related and corporate securities, MBS (agency fixed-rate pass-throughs), ABS and CMBS (agency and non-agency)

MSCI ACWI Index: The MSCI All Country World Index captures large and mid-cap representation across 23 Developed Markets and 26 Emerging Markets countries. With 3,047 constitutes, the index covers approximately 85% of the global investable equity opportunity set.

MSCI ACWI Ex-US Index: The MSCI All Country World ex USA Index captures large and mid-cap representation across 22 of 23 Developed Markets countries, excluding the USA, and 26 Emerging Markets (EM) countries. With 2,411 constituents, the index covers approximately 85% of the global equity opportunity outside the US.

MSCI Emerging Markets Index: The MSCI Emerging Markets Index captures large and mid-cap representation across 26 Emerging Markets (EM) countries. With 1,404 constituents, the index covers approximately 85% of the free float-adjusted market capitalization in each country.

Risk Parity: The Advanced Research Risk Parity Index seeks to track the performance of a multi-asset strategy that balances risk equivalently among four broad asset categories: Global Equities (U.S., Non-U.S. Developed, and Emerging Markets), Commodities (Gold, Commodity Producer Equities), U.S. Treasury Inflation-Protected Securities (TIPS) and U.S. Treasuries (Futures and T-Bills).

Russell 1000 Indices: The Russell 1000 Index measures the performance of the large-cap segment of the US equity universe. It is a subset of the Russell 3000 Index and includes approximately 1,000 of the largest securities based on a combination of their market cap and current index membership. The Russell 1000 represents approximately 92% of the US market. The Russell 1000® Index is constructed to provide a comprehensive and unbiased barometer for the large-cap segment and is completely reconstituted annually to ensure new and growing equities are included.

Russell Mid Cap Indices: The Russell Midcap Index measures the performance of the mid-cap segment of the US equity universe. The Russell Midcap Index is a subset of the Russell 1000® Index. It includes approximately 800 of the smallest securities based on a combination of their market cap and current index membership. The Russell Midcap Index represents approximately 31% of the total market capitalization of the Russell 1000 companies. The Russell Midcap Index is constructed to provide a comprehensive and unbiased barometer for the mid-cap segment. The index is completely reconstituted annually to ensure larger stocks do not distort the performance and characteristics of the true mid-cap opportunity set.

Russell 2000 Indices: The Russell 2000 Index measures the performance of the small-cap segment of the US equity universe. The Russell 2000 Index is a subset of the Russell 3000 Index representing approximately 10% of the total market capitalization of that index. It includes approximately 2,000 of the smallest securities based on a combination of their market cap and current index membership. The Russell 2000 is constructed to provide a comprehensive and unbiased small-cap barometer and is completely reconstituted annually to ensure larger stocks do not distort the performance and characteristics of the true small-cap opportunity set.