Insights
Active Quantitative Equity (AQE)

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An Evaluation of 80:60 Strategies in Various Global Equity Markets

Bruce Apted
Head of Active Quantitative Equity Portfolio Management
Australia

Adhiraj Mallik, CFA
Active Quantitative Equity Portfolio Strategist

- Defensive equity strategies with 80:60 characteristics can meaningfully outperform their regional benchmarks
- These strategies can also exhibit substantially lower volatility than their benchmarks

In our recent paper, *Upside/Downside Capture: An "80:60 Strategy" Demonstrates the Dual Mandate of a Defensive Equity Portfolio*, we argued that a defensive equity strategy[1] with 80% upside capture and 60% downside capture (80:60) would have outperformed the Dow Jones Industrial Average (DJIA) index by 3.6% per year over the index's 120-year history. The 80:60 strategy also delivered an annual risk reduction of nearly 30% versus the DJIA. Perhaps most interestingly, the analysis concluded that the 80:60 strategy would have beaten the benchmark in 10 out of 12 decades, only marginally underperforming in the other two decades.

In this paper we test the merits of an 80:60 strategy across regions, using benchmark indices in International equities, European equities, Japanese equities and Emerging Markets equities. We acknowledge that the original analysis benefitted from the long history of US equity markets, but are confident that we have been able to fully test the strategy's effectiveness in various global markets over full market cycles.

International Equities (ex-US)

First, we extended the analysis to developed markets outside the US and found the results to be even more compelling. Since 1970 an International Defensive Equity strategy[2] with an 80:60 upside/downside capture would have generated 11.6% in annual returns versus 9.3% for the MSCI World ex-US Index, an increase of 24%. At the same time, the strategy would have delivered annual volatility of 11.8% versus 16.6% for the index, a reduction of 30% (see Figure 1).

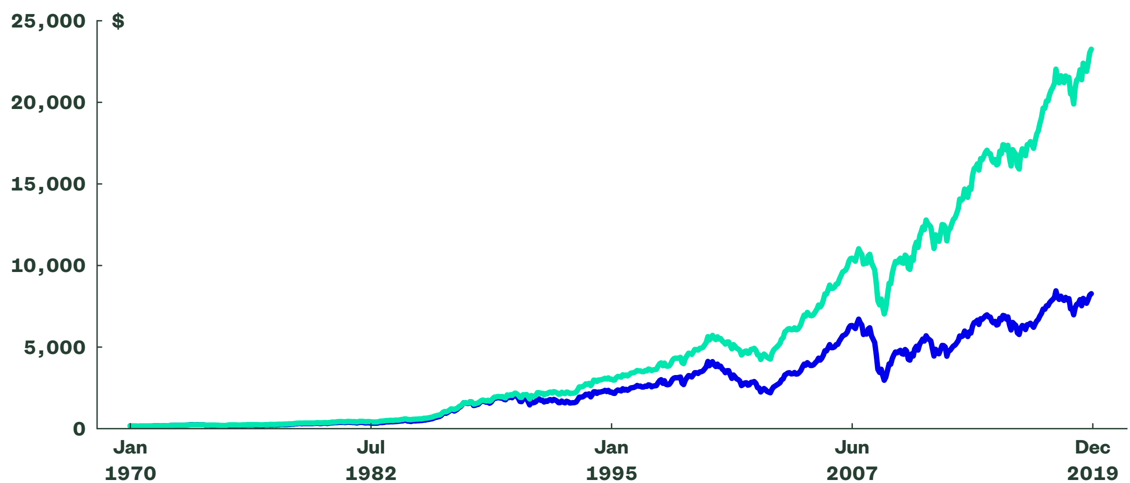
Figure 1
Comparison of Return and Risk Metrics between MSCI World ex-US Index and an International Defensive Strategy with 80:60 Characteristics
January 1, 1970 to December 31, 2019

	MSCI World ex-US Index (%)	Hypothetical International Defensive (80:60) (%)	Difference (%)
Annual Return	9.3	11.6	+2.3 pts
Annual Volatility	16.6	11.8	-4.8 pts
Maximum Drawdown	-56.4	-36.6	+19.8 pts

Source: FactSet, State Street Global Advisors, as of December 31, 2019. The returns of the 80:60 strategy do not represent those of an existing State Street strategy. Past performance does not guarantee future results. Returns are shown in USD. An investor cannot invest in an index; this is for illustrative purposes only.

Figure 2 illustrates the returns over the same time frame on a cumulative basis. $100 invested in the MSCI World ex-US Index would have grown to $8,465 whereas the same investment in an International Defensive strategy would have grown to $24,258, an increase of 181% over the index investment.

Figure 2
Growth of $100 Invested in an International Defensive Strategy with 80:60 Characteristics versus the MSCI World ex-US Index
January 1, 1970 to December 31, 2019
Growth of $100 in International Equities



MSCI World ex-US Index
International 80:60 Strategy

Source: FactSet, State Street Global Advisors, as of December 31, 2019. Past performance does not guarantee future results. The results depicted here are not those of an existing State Street Global Advisors strategy. Returns are shown in USD. An investor cannot invest in an index; this is for illustrative purposes only. Index returns are unmanaged and do not reflect the deduction of any fees or expenses.

European Equities

We then extended our analysis to the European equities market, using the MSCI Europe Index as the proxy investment universe. The results of a Europe Defensive strategy with 80:60 characteristics are even more impressive. Since 1970 the 80:60 strategy would have generated 12.2% in annual returns with 12.1% annual volatility, whereas the benchmark's annual returns and volatility were 9.9% and 17.2%, respectively (see Figure 3).

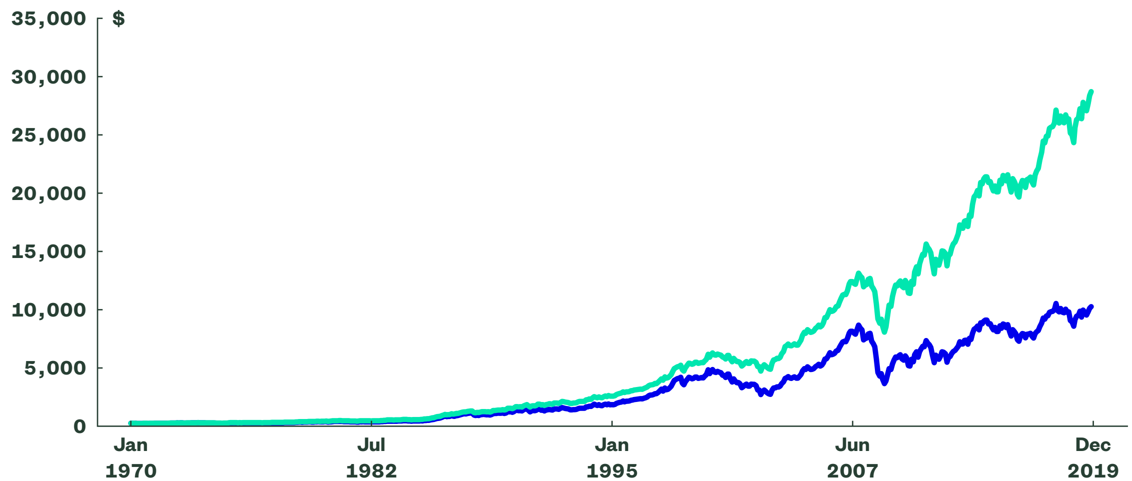
Figure 3
Comparison of Return and Risk Metrics between MSCI Europe Index and a Europe Defensive Strategy with 80:60 Characteristics
January 1, 1970, to December 31, 2019

	MSCI Europe Index (%)	Hypothetical Europe Defensive (80:60) (%)	Difference (%)
Annual Return	9.9	12.2	+2.3 pts
Annual Volatility	17.2	12.1	-5.1 pts
Maximum Drawdown	-59.0	-38.9	+20.1 pts

Source: FactSet, State Street Global Advisors as of December 31, 2019. The returns of the 80:60 strategy do not represent those of an existing State Street strategy. Past performance does not guarantee future results. Returns are shown in USD. An investor cannot invest in an index, this is for illustrative purposes only.

As a result, $100 invested in the MSCI Europe Index in 1970 would have grown to $10,747 at the end of 2019. The same investment in a Europe Defensive strategy would have yielded $30,115, an increase of 180% (see Figure 4). This is similar to the level of improvement observed with International equities.

Figure 4
Growth of $100 Invested in a Europe Defensive Strategy with 80:60 Characteristics versus the MSCI Europe Index
January 1, 1970 to December 31, 2019
Growth of $100 in European Equities



MSCI Europe Index
Europe 80:60 Strategy

Source: FactSet, State Street Global Advisors as of December 31, 2019. Past performance does not guarantee future results. The results depicted here are not those of an existing State Street Global Advisors strategy. Returns are shown in USD. An investor cannot invest in an index, this is for illustrative purposes only.

Japanese Equities

Japanese equities have been a "sideways" market since the late 1980s. An investor in the MSCI Japan Index at the market peak of 7 December 1989, would have generated a total return of -3.9% as of 31 December 2019. In addition, the market has been quite volatile for the past 20 years. As it turns out, a sideways, volatile market is fertile ground for an 80:60 strategy to flourish. As Figure 5 demonstrates, a Japan Defensive strategy with 80:60 characteristics would generate an annual return of 12.6% with annual volatility of 14.7%, whereas the MSCI Japan Index would have returned 9.1% with annual volatility of 20.5%.

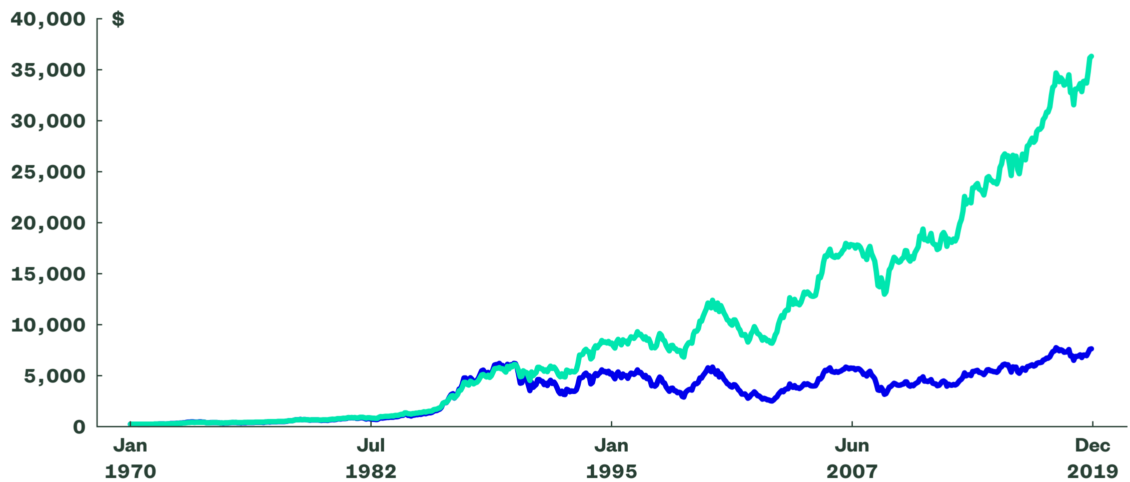
Figure 5
Comparison of Return and Risk Metrics between MSCI Japan Index and a Japan Defensive Strategy with 80:60 Characteristics
January 1, 1970 to December 31, 2019

	MSCI Japan Index (%)	Hypothetical Japan Defensive (80:60) (%)	Difference (%)
Annual Return	9.1	12.6	+3.5 pts
Annual Volatility	20.5	14.7	-5.8 pts
Maximum Drawdown	-61.1	-34.4	+26.7 pts

Source: FactSet, State Street Global Advisors, as of December 31, 2019. The returns of the 80:60 strategy do not represent those of an existing State Street strategy. Past performance does not guarantee future results. Returns are shown in USD. An investor cannot invest in an index; this is for illustrative purposes only.

Within developed market regions, the returns on a cumulative basis are most impressive in Japan. We believe a $100 investment in the MSCI Japan Index on January 1, 1970, would have grown to $7,793 as of December 31, 2019. A similar investment in a Japan Defensive (80:60) strategy would have grown to an astonishing $37,506, or 381% higher (see Figure 6).

Figure 6
Growth of $100 Invested in a Japan Defensive Strategy with 80:60 Characteristics versus the MSCI Japan Index
January 1, 1970 to December 31, 2019
Growth of $100 in Japanese Equities



MSCI Japan Index
Japan 80:60 Strategy

Source: FactSet, State Street Global Advisors, as of December 31, 2019. Past performance does not guarantee future results. The results depicted here are not those of an existing State Street Global Advisors strategy. Returns are shown in USD. An investor cannot invest in an index; this is for illustrative purposes only.

Emerging Markets

Emerging Markets arguably have the potential to outperform developed markets broadly over the next decade. We wondered whether a strategy that captures only 80% of a bull market's upside can consistently outperform the MSCI Emerging Markets Index. Our analysis suggests that the merits of a defensive (80:60) strategy hold in Emerging Markets as well. As Figure 7 shows, on an annual return basis an EM 80:60 strategy delivers 14.5% annual returns versus 10.7% for the benchmark. On an annual risk basis, the 80:60 strategy would deliver 12.8% versus 18.0% for the benchmark.[3]

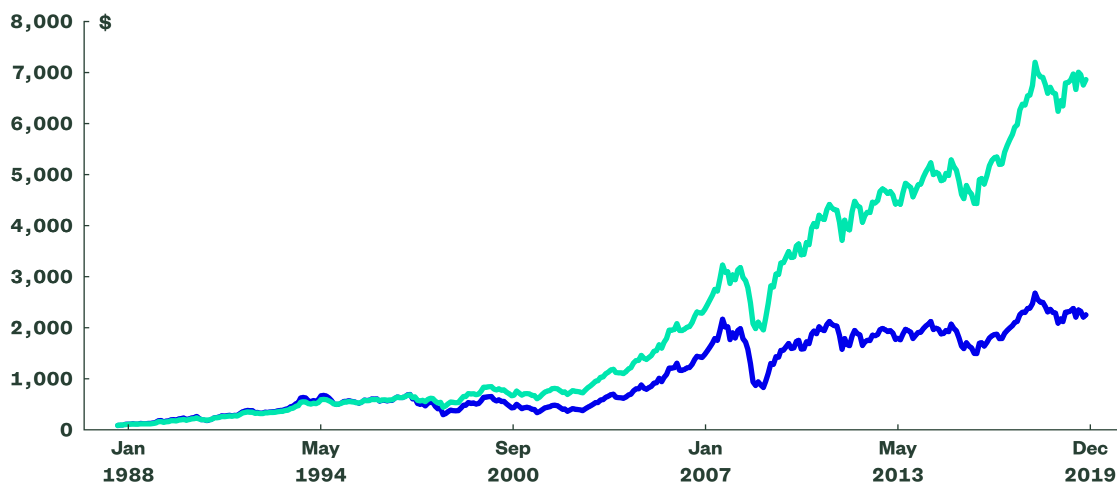
Figure 7
Comparison of Return and Risk Metrics between MSCI Emerging Markets Index and a Emerging Markets Defensive Strategy with 80:60 Characteristics
January 1, 1988 to December 31, 2019

	MSCI Emerging Markets Index (%)	Hypothetical Emerging Markets Defensive (80:60) (%)	Difference (%)
Annual Return	10.7	14.5	+3.8 pts
Annual Volatility	18.0	12.8	-5.2 pts
Maximum Drawdown	-61.4	-39.2	+22.2 pts

Source: FactSet, State Street Global Advisors as of December 31, 2019. The returns of the 80:60 strategy do not represent those of an existing State Street strategy. Past performance does not guarantee future results. Returns are shown in USD. An investor cannot invest in an index, this is for illustrative purposes only.

On a cumulative return basis, $100 invested in the MSCI Emerging Markets Index would have grown to $2,571, whereas that investment in an Emerging Markets 80:60 strategy would have grown to $7,639, or 197% higher (as shown in Figure 8).

Figure 8
Growth of $100 Invested in an Emerging Markets Defensive Strategy with 80:60 Characteristics versus the MSCI Emerging Markets Index
January 1, 1988 to December 31, 2019
Growth of a $100 in Emerging Markets Equities



MSCI Emerging Markets Index
Emerging Markets 80:60 Strategy

Source: FactSet, State Street Global Advisors as of December 31, 2019. The returns of the 80:60 strategy do not represent those of an existing State Street strategy. Past performance does not guarantee future results. Returns are shown in USD. An investor cannot invest in an index, this is for illustrative purposes only.

Closing Thoughts

Across regions, the range of outcomes we found for defensive equity strategies with 80:60 characteristics was consistently narrow. This demonstrates that a portfolio which can successfully cushion itself from market volatility and large drawdowns can, over time, meaningfully outperform its benchmarks, even if it does not fully participate in every bull market.

By avoiding some downside participation while continuing to pursue a large proportion of available upside — an approach encapsulated by the 80:60 capture ratio — well-formulated defensive strategies can effectively exploit the insight that risk is not symmetrically rewarded in the market. By constructing low-risk portfolios using robust, sector-specific metrics capturing key investment themes while optimizing for risk and transaction cost, defensive equity strategies can create compelling return streams while performing well in both up and down markets.

Endnotes

1 In Active Quantitative Equity at State Street Global Advisors, we believe that effective defensive strategies carry a dual risk and return mandate, focused on building portfolios of stocks with desirable return characteristics while optimizing for risk and transaction costs. A given stock may be a strong candidate for inclusion in portfolio based on its individual risk and return characteristics, even if it does not fall within a typically "defensive" industry sector. In general, stocks displaying low volatility, good value, high quality (e.g., low balance sheet accruals), and strong momentum are good candidates for inclusion in a defensive strategy.

2 Benchmarked against the MSCI Word index, excluding the United States.

3 Note the shorter time frame than the other analyses — a consequence of the data limitations on the total returns dataset in Emerging Markets.

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Abu Dhabi: State Street Global Advisors Limited, Middle East Branch, 42801, 28, Al Khatem Tower, Abu Dhabi Global Market Square, Al Maryah Island, Abu Dhabi, United Arab Emirates. Regulated by ADGM Financial Services Regulatory Authority. T: +971 2 245 9000. **Australia:** State Street Global Advisors, Australia Services Limited (ABN 16 108 671 441) (AFSL Number 274900) ("SSGA, ASL"). Registered office: Level 15, 420 George Street, Sydney, NSW 2000, Australia. T: 612 9240-7600. F: 612 9240-7611. **Belgium:** State Street Global Advisors Belgium, Chaussée de La Hulpe 120, 1000 Brussels, Belgium. T: 32 2 663 2036. F: 32 2 672 2077. SSGA Belgium is a branch office of State Street Global Advisors Ireland Limited. 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Hypothetical Portfolio Methodology: Sample portfolio returns are hypothetical and are based on the returns of the underlying market indices in the proportions shown. The returns of the "80:60" strategy were achieved by multiplying positive monthly returns by 80% (0.8) and negative monthly returns by 60% (0.6). Months with performance of 0% remained as such. The views expressed are the views of our Active Quantitative Equity Portfolio team only through February 29, 2020 and are subject to change based on market and other conditions. This document contains certain statements that may be deemed forward-looking statements. Please note that any such statements are not guarantees of any future performance and actual results or developments may differ materially from those projected. Investing involves risk including the risk of loss of principal.

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