

Quality Investing

Building a resilient portfolio for changing economic environments

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Executive Summary

The foundations of "quality" investing were borne from the development of stock markets, as investors sought companies with strong financial positions and expectations that earnings would be dependable over time.

In this paper, we set out the foundations of quality investing. We then compare its performance and its risk (as measured by standard deviation of returns) to other identifiable investing 'factors' using over 25 years of history.

Quality, like other factors, behaves differently during different economic regimes.

Our results show, as a factor, quality has the best risk-adjusted returns above the benchmark. Additionally, it exhibits defensive characteristics, outperforming during economic slowdowns, experiencing smaller declines during market downturns, and recovering more swiftly to previous highs.

These results have important implications for asset allocators. Predicting the changes in economic trends can be difficult, so having a meaningful allocation to the quality factor as a core part of the portfolio could serve investors over the long term. Around this position, other factors and sector positions could be taken depending on the expectations and risk tolerance of the investor.

Our results show, as a factor, quality has the best risk-adjusted returns above the benchmark.

Introduction to quality and factor investing

From an investment perspective, "quality" is known as a "factor". Factors are identifiable, persistent drivers of risk and return. According to index provider MSCI, there are six main equity style factors: quality, size, value, momentum, dividend yield and volatility. Quality, in particular, has been receiving a lot of attention recently.

Quality investing encompasses several considerations, much to do with the financial characteristics of a company.

Commonly accepted attributes of a 'quality' company include its profitability, earnings reliability, debt levels and balance sheet strength. These characteristics are not plucked out of the air, rather they have been empirically researched, tested, finessed and retested since the 1930s.

Identifying quality companies has been a focus of investors for a long time, <u>Benjamin Graham</u> wrote about it in *Security Analysis* way back in 1934. He followed up that with The Intelligent Investor, where he outlined, what has become the basis for, the quality factor. Graham said investors should demand from a company "a sufficiently strong financial position and the potential that its earnings will at least be maintained over the years." Such companies, he claimed, show resilience by falling less in a downturn and recovering to previous highs quicker than other companies.

These tenets, strong financial position and dependable earnings have been used to identify quality companies since then, and researchers have tested their efficacy and refined quality to help investors understand the factor and improve investor outcomes.

In the academic world, Friend and Lang (1987) included a "quality ranking" in their analysis of the size effect. This is likely the earliest reference to quality as a standalone systematic factor in academic literature.

Over the next three decades, many more professors, researchers and the industry undertook research to define quality, understand why it behaved the way it did and to help identify the characteristics of quality companies.

After considering the academic and commercial research, MSCI's review of the quality factor found that a company's quality can be evaluated along five key dimensions: profitability, earnings quality, financial leverage, asset growth and corporate governance.

The table below summarises how these dimensions can be measured.

Dimension of quality	Metric for measurement	
Profitability	Return on equity (ROE), return on assets (ROA), gross profitability, gross margin and asset turnover	
Earnings quality	Persistency and predictability of earnings	
Financial leverage	Debt to equity, debt to assets	
Asset Growth	Share issuance growth, capex growth, recent capex	
Corporate Governance	Good corporate behaviour, board independence, gender diversity and audit committee independence	

Table 1: Measurable metrics for assessing quality

Source: MSCI

Asset growth and corporate governance tend to be more difficult to quantify. Profitability, earnings quality and financial leverage are readily available in financial statements and thus can be used to construct transparent, rules-based indices. Indices are MSCI's bread and butter.

To work out how to best construct an index that captured the quality factor and understand how these metrics perform, MSCI created 10 portfolios with varying exposures. These portfolios targeted companies with high ROE, low debt to equity and low earnings variability, utilising an equal-weighted composite score of the three descriptors. These metrics and equal weighting were chosen because, in addition to being supported by academic research, they were tangible, transparent and readily available in financial statements.

It was found that indices that considered these metrics individually achieved a positive return against the MSCI World Index. However, combining all three equally provided superior performance to the standalone indices or different combinations of the metrics. From this, MSCI had the foundation for its MSCI World Quality Index.

MSCI has also created indices based on the other equity style factors it identified using similar rigorous research.

Factor	Objective	Academic research	MSCI single factor criterion	
Enhanced Value	Value investing selects 'cheap' companies trading a low price to valuation multiples relative to peers. Value seeks to provide excess returns as company valuations relative to price return to market average.	The value factor is also grounded on the work of Benjamin Graham and David Dodd in the 1930s and academic research by Basu (1977) and Fama and French (1992).	 Book value to price ratio Forward price to earnings Enterprise value to cash flow from operations 	
Size	Size investing up weights exposure to mid and small caps relative to large caps.	Investing in small companies is supported by academics including Banz (1981), Fama and French (1992).	Equal weighting	
Momentum	Momentum investing select companies that recently had strong positive pricing sentiment. The strategy seeks to provide excess returns by investing in companies with strong pricing historical performance tailwinds.	Momentum, as a factor, is supported by academic research by Jegadeesh and Titman (1993) which was reinforced by Carhart (1997) and Rowenhorst (1998).	 6 month local share price return 12 month local share price return 	
Minimum Volatility	The volatility factor captures the outperformance of stocks with lower than average volatility, as measured by the standard deviation of regular-interval returns (e.g. weekly, monthly, etc.).	Haugen and Heins (1972) noted the "abnormality" of lower volatility portfolios delivered superior returns to the market portfolio. This was reinforced by Haugen and Baker (1991) and Clarke, Silva, and Thorley (2006).	 Beta Volatility of returns 	
High Dividend	Companies with the ability to pay out high dividends typically have competitive business models and robust balance sheets with strong cash flows. Paying dividends also indicates that the company may be profitable and is used to determine future earnings.	According to Wharton Professor Jeremy Seigel, (2005) dividends have provided the majority of the stock market's total return over time and by allocating only to dividend paying stocks Siegel has been able to demonstrate outperformance.	• Dividend yield	

Table 2: Single factor strategy definitions

Source: MSCI

Only the Global High Dividend Index has underperformed the MSCI World Index since the beginning of 1999.



Chart 1: Cumulative performance of factor indices and global equity index

Source: Bloomberg, MSCI, 1 January 1999 to 31 January 2025. Global equity index is MSCI World Index, Quality is MSCI World Quality Index, Momentum is MSCI World Momentum Index, Minimum Volatility is MSCI World Minimum Volatility Index, High Yield is MSCI World High Dividend Yield Index, Equal weight is MSCI World Equal Weight Index, Enhanced value is MSCI World Enhanced Value Index. You cannot invest in an index. Past performance is not a reliable indicator of future performance.

You can see in Chart 1 above that each of the factor indices performs differently at different times, for example, the enhanced value factor performed well throughout the lead-up to the GFC, and after that time quality has been the go-to factor as apparent by its rise over the past decade.

The rises and falls of all the factor indices differ in steepness and length.

Assessing the performance of different factors during different economic regimes

To better understand how these factor indices have behaved in different economic regimes since 1999 we have analysed the performance of each of the factor indices through the economic cycles.

Four identifiable stages make up the economic cycle. They are expansion, slowdown, contraction and recovery.

Chart 2: The economic cycle



The direction and the pace of economic activity An expansionary environment is when growth is expanding at a faster rate;

- · A slowdown occurs when economic activity is slowing down after an expansion;
- · A contraction occurs when economic growth is negative and it is still falling; and
- A recovery is when economic growth, after the trough of a contraction, starts to head toward growth.

For the purposes of the analyses, we have used the Purchasing Managers' Index (PMI). The PMI is an index used to measure the prevailing direction of economic trends in the manufacturing and service sectors. It measures the change in production levels across the economy from month-to-month so is considered a key indicator of the state of the economy. The chart below shows the three-month rolling PMI changes since 1997, highlighting the stage of the economic cycle at that time.



Chart 3: ISM Manufacturing PMI Index

Source: VanEck, Bloomberg. November 1998 to January 2025.

The table below shows the frequency of the four economic regimes over the approximately 26 years of the analysis. Expansions (growth expanding at a faster rate) and slowdowns (growth slowing down after an expansion) have been the most common regimes, followed by contraction, and then recovery.

Table 3: Frequency of economic regimes since November 1997

Period	Frequency		
Recovery	8%		
Expansion	39%		
Slowdown	35%		
Contraction	18%		

Source: VanEck, Bloomberg, November 1998 to December 2024.

Table 4 below shows the historical results of each of the factor indices since 1999. The first column shows the returns over the entire period. The MSCI World Index had a positive return of 6.32% per annum (p.a.). As noted above, only the World High Yield Dividend Index underperformed the broad market index.

The table then works its way through the results, left to right, starting with the least frequently observed economic regime (recovery), then through the cycle, expansion, followed by slowdown, then contraction.

Period	Since Inception	Recovery	Expansion	Slowdown	Contraction
MSCI World	6.32%	0.95%	16.78%	-1.70%	4.74%
Quality	8.11%	7.06%	15.44%	0.38%	9.71%
Momentum	8.51%	7.93%	22.31%	1.74%	-3.55%
Minimum Volatility	6.58%	0.10%	12.81%	3.16%	3.84%
High Dividend Yield	5.95%	1.51%	12.78%	0.41%	4.90%
Equal Weight	7.22%	-1.59%	18.29%	-1.50%	7.10%
Enhanced Value	8.07%	4.08%	20.04%	-0.87%	4.24%

Table 4: MSCI World and factor index performance since January 1999 (p.a.)

Source: Bloomberg, MSCI, 1 January 1999 to 31 January 2025. Figures are annualised. Quality is MSCI World Quality Index, Momentum is MSCI World Momentum Index, Minimum Volatility is MSCI World Minimum Volatility Index, High Yield is MSCI World High Dividend Yield Index, Equal weight is MSCI World Equal Weight Index, Enhanced value is MSCI World Enhanced Value Index. You cannot invest in an index. Past performance is not a reliable indicator of future performance.

In the periods of recovery, quality, momentum and enhanced value were standouts. In terms of relative performance (Table 5), each of these factor indices returned over 3% p.a. beyond the benchmark index returns during periods of recovery, with quality and momentum exceeding 6% p.a.

During the most common economic environment, expansions, enhanced value and momentum performed best.

During contractions, quality and size (equal weight) were the best-performing factors. Quality also did relatively well in a slowdown, marginally behind high dividend. Momentum and minimum volatility had the strongest returns during these slowdown periods.

Table 5: Relative factor index performance since January 1999 to MSCI World Index (p.a.)

Period	Since Inception	Recovery	Expansion	Slowdown	Contraction
Quality	1.79%	6.11%	-1.34%	2.08%	4.98%
Momentum	2.19%	6.98%	5.53%	3.44%	-8.29%
Minimum Volatility	0.26%	-0.85%	-3.97%	4.86%	-0.90%
High Dividend Yield	-0.36%	0.57%	-4.00%	2.11%	0.16%
Equal Weight	0.91%	-2.54%	1.51%	0.20%	2.36%
Enhanced Value	1.75%	3.13%	3.26%	0.83%	-0.50%

Source: Bloomberg, MSCI, 1 January 1999 to 31 January 2025. Figures are annualised. Quality is MSCI World Quality Index, Momentum is MSCI World Momentum Index, Minimum Volatility is MSCI World Minimum Volatility Index, High Yield is MSCI World High Dividend Yield Index, Equal weight is MSCI World Equal Weight Index, Enhanced value is MSCI World Enhanced Value Index. You cannot invest in an index. Past performance is not a reliable indicator of future performance.

	Recovery	Expansion	Slowdown	Contraction
Top 2	Momentum	Momentum	Minimum Volatility	Quality
	(+6.98%)	(+5.53%)	(+4.86%)	(+4.98%)
1002	Quality	Enhanced Value	Momentum	Equal Weight
	(+6.11%)	(+3.26%)	(+3.44%)	(+2.36%)
Dettern 2	Equal Weight	High yield	Equal Weight	Momentum
	(-2.54%)	(-4.00%)	(+0.20%)	(-8.29%)
Bottom 2	Minimum Volatility	Minimum Volatility	Enhanced Value	Minimum Volatility
	(-0.85%)	(-3.97%)	(+0.83%)	(-0.90%)

Table 6: Summarises the results by top and bottom factors (relative outperformance in brackets, p.a.)

Source: Bloomberg, MSCI, 1 January 1999 to 31 January 2025. Figures are annualised. Quality is MSCI World Quality Index, Momentum is MSCI World Momentum Index, Minimum Volatility is MSCI World Minimum Volatility Index, High Yield is MSCI World High Dividend Yield Index, Equal weight is MSCI World Equal Weight Index, Enhanced value is MSCI World Enhanced Value Index. You cannot invest in an index. Past performance is not a reliable indicator of future performance.

Over all four of the economic regimes, quality is the only factor that does not appear in the bottom two.

Momentum appears three times in the top two, but it has the largest number (on an absolute basis) with its -8.29% p.a. underperformance during contractions. Quality is the only other factor that appears in the top two more than once. The two periods, quality was not in the top two were slowdowns and expansions. It outperformed by more than 2% p.a. during a slowdown. Its relative underperformance during expansion is dwarfed by its strong relative performance during the other three economic regimes, as evidenced by its outperformance of the MSCI World Index, since 1999.

The quality factor's performance during recoveries, contractions and slowdowns exhibits the performance Graham predicted in The Intelligent Investor. As a result of these performance characteristics, the quality factor has earned the reputation as being a 'defensive factor'. Quality companies have dependable earnings and are lowly leveraged, so they can better withstand the extremes of the economic cycle.

This is also reflected in quality's relative lower volatility, as measured by the standard deviation of returns.

Period	Since Inception	Recovery	Expansion	Slowdown	Contraction
Quality	14.75%	21.33%	12.73%	13.44%	16.49%
Momentum	26.98%	32.16%	23.90%	24.73%	31.99%
Minimum Volatility	26.02%	26.29%	22.54%	24.35%	33.78%
High Dividend Yield	20.57%	21.85%	17.44%	19.03%	27.34%
Equal Weight	15.61%	24.02%	15.08%	10.49%	19.54%
Enhanced Value	22.30%	27.54%	21.82%	19.14%	25.87%

Table 7: Relative factor performance volatility since January 1999 to MSCI World Index

Source: Bloomberg, MSCI, 1 January 1999 to 31 January 2025. Performance volatility is measured as the standard deviation of returns. Quality is MSCI World Quality Index, Momentum is MSCI World Momentum Index, Minimum Volatility is MSCI World Minimum Volatility Index, High Yield is MSCI World High Dividend Yield Index, Equal weight is MSCI World Equal Weight Index, Enhanced value is MSCI World Enhanced Value Index. You cannot invest in an index. Past performance is not a reliable indicator of future performance.

Quality has the lowest relative volatility since inception. It has the lowest volatility during recoveries, contractions and expansions. Impressively it has the second lowest volatility across the other economic regimes being slowdowns.

	Recovery	Expansion	Slowdown	Contraction
Top 2	Quality	Quality	Equal Weight	Quality
	(21.33%)	(12.73%)	(10.49%)	(16.49%)
100 2	High Dividend	Equal Weight	Quality	Equal Weight
	(21.85%)	(15.08%)	(13.44%)	(19.54%)
	Momentum	Momentum	Momentum	Minimum Volatility
	(32.16%)	(23.90%)	(24.73%)	(33.78%)
	Enhanced value	Minimum Volatility	Minimum Volatility	Momentum
	(27.54%)	(22.54%)	(24.35%)	(31.99%)

Table 8: Summarises the results by top and bottom factors (volatility in brackets)

Source: Bloomberg, MSCI, 1 January 1999 to 31 January 2025. Performance volatility is measured as the standard deviation of returns. Quality is MSCI World Quality Index, Momentum is MSCI World Momentum Index, Minimum Volatility is MSCI World Minimum Volatility Index, High Yield is MSCI World High Dividend Yield Index, Equal weight is MSCI World Equal Weight Index, Enhanced value is MSCI World Enhanced Value Index. You cannot invest in an index. Past performance is not a reliable indicator of future performance.

Momentum has been the most volatile factor. Interestingly, minimum volatility has been anything but that, particularly during contractions, slowdowns and expansions where it has experienced a high deviation of returns.

Investors must consider the returns, and the risks when considering which approach to take. A way to consider both is the information ratio. The information ratio combines the returns relative to the benchmark with the volatility of those returns. Traditionally, it has been used by investors to evaluate a portfolio manager's skill at generating returns in excess of the benchmark relative to the risks taken to achieve those returns. The higher the information ratio, the better.

In the same way that information ratio is used to assess portfolio managers' 'skill', we can use it to measure the 'skill' of each factor index we've been examining in this paper.

The information ratios for each of the factor indices since 1999, and through each of the economic regimes during that time, are shown below.

Period	Since Inception	Recovery	Expansion	Slowdown	Contraction
Quality	0.42	0.99	-0.36	0.54	1.05
Momentum	0.28	0.75	0.80	0.48	-0.90
Minimum Volatility	0.03	-0.11	-0.61	0.69	-0.09
High Dividend Yield	-0.06	0.09	-0.79	0.38	0.02
Equal Weight	0.20	-0.37	0.35	0.07	0.42
Enhanced Value	0.27	0.39	0.52	0.15	-0.07

Table 9: Information ratio of factor indices

Source: Bloomberg, MSCI, 1 January 1999 to 31 January 2025. Quality is MSCI World Quality Index, Momentum is MSCI World Momentum Index, Minimum Volatility is MSCI World Minimum Volatility Index, High Yield is MSCI World High Dividend Yield Index, Equal weight is MSCI World Equal Weight Index, Enhanced value is MSCI World Enhanced Value Index. You cannot invest in an index. Past performance is not a reliable indicator of future performance.

Quality exhibited its "skill" during contractions and recoveries and has the second-highest information ratio during a slowdown. Table 9 shows that quality has the highest information ratio overall (0.42) since 1999. This is 50% higher than momentum (0.28) and enhanced value (0.27).

Conclusion

A recurrent theme of the last few years among investors has been the changing state of the global economy and its impact on international equities. As such many investors have been considering macroeconomic conditions as a part of their investment considerations.

In this paper, we have conclusively illustrated that the quality factor has the best risk-adjusted returns over the entire economic cycle.

These results have important implications for asset allocators. Predicting the changes in economic trends can be difficult, so having a meaningful allocation to the quality factor as a core part of the portfolio could serve investors over the long term. Around this position, other factors and sector positions could be taken depending on the expectations and risk tolerance of the investor.

The rise of ETFs has made this type of portfolio construction accessible for everyday investors such as VanEck's International Quality ETF (QUAL).

In October 2024, QUAL celebrated its 10th anniversary since its listing. During that time QUAL has enabled investors to take advantage of the quality factor's defensive characteristics and outperform the market, as represented by the MSCI World ex Australian Index. As always, past performance is by no means a reliable indicator of future performance.

Looking back, the last 10 years have presented investors with many unpredictable 'shocks' that have impacted international equity returns and the broader economy.

The economy has shrunk and it has recovered, the cycle repeats.

Successful long-term investors survive short-term falls by sticking to investment principles that have withstood the tests of time. For equities, as it has been since the time of Benjamin Graham, investing in profitable companies with strong balance sheets and stable earnings has historically given resilience to portfolios.

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