

DAVY

Quality Matters

“Quality – More than the sum of its parts”

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It's not just business. **It's personal.**

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01 Executive summary

In this research note, we demonstrate that Davy Asset Management's (DAM) definition of Quality (QUALITY) provides a positive asymmetric return profile, over and above that of any of its four sub-pillars i.e. Profitability, Persistence, Protection and People.

As noted in the last of our working series, Quality Matters – Asymmetric Returns¹, outperforming the market during Down markets is favourable to outperforming in Up markets, due to the long-term effect of compounding returns. If an investment outperforms in a Down market, it has less to recoup and will then be ahead over a longer period, assuming it performs in-line with the market as it rebounds – a simple case of compounding.



When it comes to compounding, I'm not sure everyone understands that percentage losses and gains are not equal. I've always managed to avoid the large losses. Imagine something as simple as that being one of your secret sauces

Frank K. Martin, Author²

¹ Quality Matters Working Series – Asymmetric Returns, Jonty Starbuck CFA, Ph.D April 2019

² Columbia Business School investment letter, Graham & Doddsville Issue XVII, Winter 2013

02 What is DAM QUALITY?

DAM QUALITY is a proprietary multi-factor model consisting of four sub-pillars, Profitability, Persistence, Protection and People. To recap on our original Quality Matters whitepaper³, the four sub-pillars of QUALITY are defined as below:



Profitability

Profitability is one of the most important indicators for investors when considering companies in which to invest. A company without profits, or signs of profits in the near future, should signal a red flag to investors. Metrics such as operating margin and return on equity, among others, can be used to gauge the profitability of a company.



Persistence

The ability of a firm to produce above average returns on an on-going and consistent basis is another key factor to consider when looking to invest in a company. Investors ideally want companies which have the capacity to grow over time and increase profits while doing so. Examining the rate of change of profitability over a given period will indicate the stability of returns generated by a company.



Protection

Protection signifies companies with low volatility and risk. Companies which are “well-protected” are more likely to weather market downturns and continue to provide returns to the investor on an on-going basis over time.



People

When investing in a company it is essential to also consider its management; does the management team allocate capital effectively? Prudent management of capital can bolster returns, and provide further upside to the investor, across the business cycle. Analysis of debt issuance and share buy backs can be used to gauge how a company performs in this area.

Through this four-pillar approach, we invest in companies which:

1. generate higher than normal returns (**Profitability**);
2. produce these higher rates of return on an ongoing basis (**Persistence**);
3. manage their risks effectively (**Protection**); and
4. have management teams who effectively manage their capital allocation (**People**).

³ “Quality Matters” White Paper – Chantal Brennan, Paraic Ryan, Hannah Cooney: May 2016.

03 Analysis

DAM QUALITY, as detailed previously, is represented by a custom index, the DAM QUALITY Index. The DAM QUALITY Index follows a similar methodology to that of the MSCI World Quality Index⁴, and is calculated as the top quintile of MSCI World Index ranked according to the DAM QUALITY score, and is then market-cap weighted⁵.

A similar approach is used to create indices for each of the four sub-pillars whereby the individual pillar indices are constructed as the top quintile of MSCI World Index and ranked by the respective pillar scores. This allows us to analyse the effect of each individual pillar.

Pillar analysis is undertaken using data observed from our live model, which has been in place at DAM since 2016⁶. This proprietary model is based on 15 years of back-tested data, and follows DAM's Quality Philosophy which was established in 2014. For each pillar, we assess the return profile and Up/Down market capture rates and compare versus the overall DAM QUALITY model.



the whole is greater than the sum of its parts

Aristotle

⁴ Please find the MSCI World Quality Index methodology here: <https://www.msci.com/documents/10199/344aa133-d8fa-4a15-b091-20a8fd024b65>

⁵ The QUALITY score is calculated as an equal weight of the z-scores (i.e. the number of standard deviations from the mean a data point is. Z-scores may be positive or negative, with a positive value indicating the score is above the mean and a negative score indicating it is below the mean.) of each of the four sub-pillar scores, where each sub-pillar score is determined by z-scoring and equal weighting individual pillar factors.

⁶ The model is updated monthly. Returns data for the indices is sourced from Bloomberg and is stated in USD. The benchmark used is MSCI World Index; a 'Down' market is when the benchmark posts negative returns, and conversely an 'Up' market is defined as positive returns from the benchmark.

Examining the results of the analysis, Table 1 shows the favourable return capture profile for QUALITY, when compared to the sub-pillars. QUALITY captures 104% of the MSCI World Index (benchmark) return in Up markets but captures only 91% of the return in a downturn. Indeed, some of the other pillars, such as Profitability and Persistence, have a higher return capture in Up markets, but they also have a significantly higher return capture in Down markets.

Table 1: Up and Down performance of QUALITY and its pillars (February 2016 to July 2019)

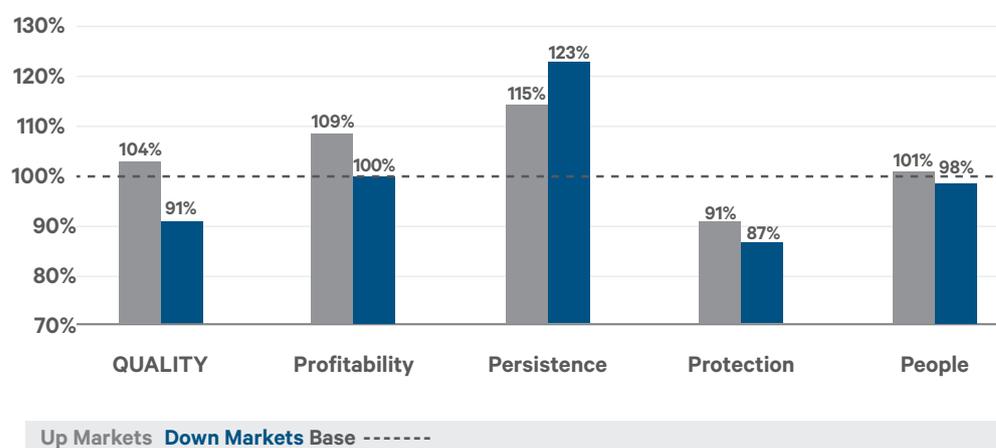
		Months Above Benchmark	Months Below Benchmark	Total Months	Proportion of Months Above Benchmark	Average Portfolio Return (%)	Average Benchmark Return (%)	Average Excess Return (%)	Return Capture (%)
QUALITY	Up Markets	15	18	33	45%	2.4%	2.3%	0.1%	104%
	Down Markets	7	2	9	78%	-3.1%	-3.4%	0.3%	91%
	Total	22	20	42	52%	1.2%	1.1%	0.1%	-
Profitability	Up Markets	19	14	33	58%	2.5%	2.3%	0.2%	109%
	Down Markets	4	5	9	44%	-3.4%	-3.4%	0.0%	100%
	Total	23	19	42	55%	1.2%	1.1%	0.2%	-
Persistence	Up Markets	18	15	33	55%	2.6%	2.3%	0.4%	115%
	Down Markets	1	8	9	11%	-4.2%	-3.4%	-0.8%	123%
	Total	19	23	42	45%	1.2%	1.1%	0.1%	-
Protection	Up Markets	12	21	33	36%	2.1%	2.3%	-0.2%	91%
	Down Markets	6	3	9	67%	-3.0%	-3.4%	0.4%	87%
	Total	18	24	42	43%	1.0%	1.1%	-0.1%	-
People	Up Markets	18	15	33	55%	2.3%	2.3%	0.0%	101%
	Down Markets	4	5	9	44%	-3.3%	-3.4%	0.1%	98%
	Total	22	20	42	52%	1.1%	1.1%	0.0%	-

Source: Davy Asset Management, MSCI, and Bloomberg as at 31st July 2019, in USD. The benchmark used is the MSCI World Index.

Warning: Past performance is not a reliable guide to future performance, there can be no assurance that any future investments will achieve similar results. Investments may go down as well as up. Performance may be affected by changes in currency exchange rates.

Looking at the differential between return captures in Up and Down markets, we can see that QUALITY and three of the four pillars – Profitability, Protection and People – deliver positive asymmetric returns, as seen in Figure 1. Although Persistence does not deliver positive asymmetric returns, it compensates with an above average return in Up markets. Given QUALITY generates the strongest asymmetric return profile with an Up and Down capture of 104% and 91% respectively, this leads us to believe that QUALITY is in fact more than the sum of its individual pillars.

■ **Figure 1: Average monthly return capture of QUALITY and pillar performance relative to MSCI World Index (February 2016 to July 2019)**



Source: Davy Asset Management, MSCI, and Bloomberg as at 31st July 2019, in USD. The benchmark used is the MSCI World Index

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06 Conclusion

In the latest of our insights, we take a deeper dive into the four individual sub-pillars making up the DAM QUALITY model Profitability, Persistence, Protection, and People. We believe that these four pillars are essential to achieving better positive asymmetric returns. We find that while three of the four sub-pillars of QUALITY provide asymmetric returns, none do so to the same extent as QUALITY, highlighting that QUALITY is more than the sum of its parts.

Further analysis of the four pillars and their interactions is essential in understanding the drivers of QUALITY. In other insights, we will explore these relationships and how they generalise to a wider universe. We will also explore whether it is possible to under/over-weight pillars dependent on fundamentals and market conditions to achieve above average performance over a static model.

07 About Davy Asset Management

We believe high-QUALITY companies outperform over the long term. By combining the strengths of both quantitative and fundamental (Quantamental) analysis while focussing on our bespoke definition of Quality (QUALITY), we aim to improve our insights and provide consistent performance for all of our strategies. The result is an integrated investment philosophy and process, culminating in high-conviction portfolios of high-QUALITY stocks held at appropriate valuations.

We view responsible investing as a key part of our fiduciary duty to our clients. Fundamentally, we view a company's ability to manage its environmental, social and governance (ESG) risks as representative of how it manages its long-term business risks, and complementary to our QUALITY philosophy.

DAM is part of the Davy Group (Group), one of Ireland's leading providers of asset management, wealth management, capital markets and financial advisory services. DAM was formed through the mergers of the Group's in-house investment manager Focus Investments and Bloxham Investment Managers in 2012, and the acquisition of Prescient Investment Managers in 2014.

We maintain the reputation established by the Group since its inception in 1926 as a recognised leader in investment management. Our objective is to understand the circumstances and aspirations of each of our clients with the aim of sharing the commitment towards achieving their unique goals.

About the authors



Emma O'Donnell
Quantitative Analyst

Emma is a quantitative analyst in the global equities investment team. She is responsible for the research and development of models used in the management of our portfolios and strategies. Prior to joining Davy Asset Management in 2018, Emma worked as a risk analyst in Bank of Ireland, where she was responsible for developing stress testing models within enterprise risk management. Previously, she worked for the Aon Centre for Innovation and Analytics as a data scientist, where she focused on research & development. Emma has a Bachelor of Science in Statistics from University College Dublin, as well as a Master of Science in Quantitative Finance from UCD Michael Smurfit Graduate Business School.



Jeremy Humphries
Fund Manager

Jeremy Humphries is a fund manager for growth-orientated strategies. He is responsible for quantitative analysis and portfolio management on the global equity team. Prior to joining Davy Asset Management in 2015, he worked on the quantitative equity products (QEP) team at Schroders in London. Jeremy began his investment career in 2007 at Pioneer Investments where he worked as a quantitative equity analyst within the global quantitative research and management team. Jeremy holds a Master in Science in Quantitative Finance from University College Dublin and a Bachelor of Engineering (Hons) in Mechanical and Manufacturing Engineering from Trinity College, Dublin.

Market data

	2018 (%)	2017 (%)	2016 (%)	2015 (%)	2014 (%)
MSCI World Index	-8.2	23.1	8.2	-0.3	5.6
QUALITY	-4.4	29.1	2.8	3.0	11.7
Profitability	-4.1	28.4	-	-	-
Persistence	-7.4	29.6	-	-	-
Protection	-7.7	24.8	-	-	-
People	-4.2	21.9	-	-	-

Source: Davy Asset Management, MSCI and Bloomberg as at 31st December in USD. QUALITY, Profitability, Persistence, Protection and People performance is from our live model, which has been in place at DAM since 2016.

MSCI World Index captures large and mid cap representation across 23 Developed Markets (DM) countries. With 1,650 constituents, the index covers approximately 85% of the free float-adjusted market capitalization in each country.

Warning: Past performance is not a reliable guide to future performance. Investments may go down as well as up. This product may be affected by changes in currency exchange rates.

Disclosures

Warning: Past performance is not a reliable guide to future performance, there can be no assurance that any future investments will achieve similar results. Investments may go down as well as up. Performance may be affected by changes in currency exchange rates.

Warning: Simulated past performance is not a reliable guide to future performance.

Important factors for back-tested Performance:

- Prepared with the benefit of hindsight/tends to produce favourable returns
- Does not account for financial risk
- Not necessarily indicative of the skill of Davy Asset Management
- Investors may experience loss

Please note: Back-tested data presented for QUALITY prior to its inception was prepared by applying the QUALITY criteria to the investment universe and presenting the aggregate performance of investments meeting those criteria from 31 December, 2003 until inception.

Please note: It is not possible to invest directly in any Index.

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