

The quality factor: Its impact, foundation, and evolution



In the Spotlight
May 2024

Key Insights

- Quality has been a powerful driver of returns, in part, given its relationship to the consistency and compounding of shareholder returns.
- An assessment of quality should center on financial analysis to help understand corporate health; financial productivity; and a company's competitiveness, management execution, and shareholder returns.
- Quality is increasingly being influenced by a company's exposure to secular change. Companies aligned with long-term, sustainable growth trends appear to be economically more resilient and fundamentally of higher quality.



Laurence Taylor
Equity Solutions
Portfolio Manager



Adam Karp
Equities Risk Manager

The investment landscape of the last 18 months has been unusual in many respects. Looking back, much of the rally has been driven by risk aversion easing back as black swan events were either avoided or diluted in probability. But while headline equity market returns might imply a robust economic backdrop, index returns were achieved despite an economic deceleration—but also

because of a heavy concentration in a handful of stocks, most notably, the “Magnificent Seven”¹ (Figure 1). While these stocks might be loosely bonded by the emerging theme of artificial intelligence (AI) and its infrastructure and future applications, the extreme return concentration over that period merits deeper consideration.

“Quality is increasingly being influenced by a company's exposure to secular change.

— Laurence Taylor
Equity Solutions Portfolio Manager

¹ Apple, Microsoft, NVIDIA, Amazon, Alphabet, Meta Platforms, and Tesla are seven tech companies that have come to be known as the Magnificent Seven.

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– Adam Karp
Equities Risk Manager

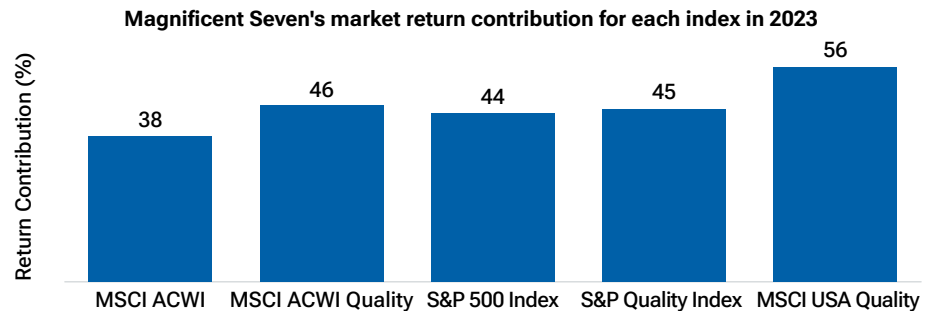
The market capitalization of the Magnificent Seven stocks is one clear linkage, but a key thread when looking at equity returns over the past decade has been a collective improvement in the quality of these companies. This show of quality intertwined with the expectation of future growth and improvement, and stemming from the AI revolution, is at the heart of why these companies have dominated equity returns.

What is quality, and does it work?

Factor definitions—including size, momentum, volatility, growth, and value—have long been viewed with a high degree of consensus among practitioners and academic researchers. While there are variations in the precise metrics used for definition, many factor concepts are widely accepted and understood by investors.

Magnificent Seven ride to the rescue

(Fig. 1) 2023 market returns were dominated by a handful of stocks



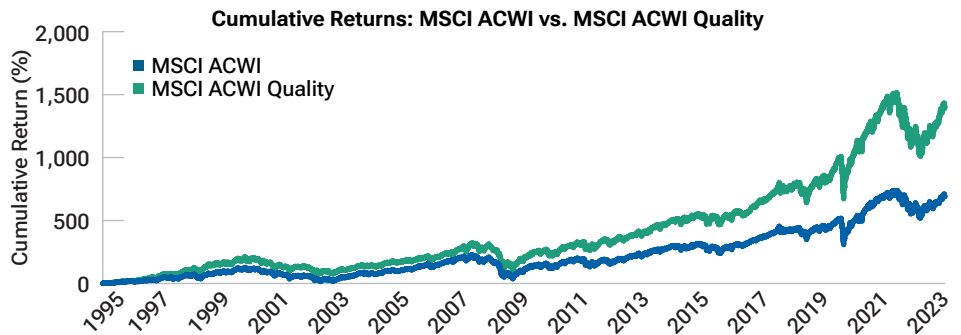
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Quality stocks have outperformed for over 10 years

(Fig. 2) The last few years have seen a clear differentiator in performance of quality assets



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Quality, either as a factor or as an investing style, is a notion that lacks a universally agreed-upon definition, however. This makes quality harder to identify and capture, despite strong consensus and evidence that it has strong linkages to financial returns within equity markets.

We examined quality from both a quantitative and qualitative perspective with a goal to understand its foundations, its impact on returns, and its redistribution in an ever-increasing digital world. As a starting point to understand why quality is a much-debated concept, we compared

the MSCI ACWI² with the MSCI ACWI Quality (Figure 2). While there are many definitions available, the MSCI ACWI Quality aims to capture the performance of quality-growth stocks by identifying securities with high quality scores based on three main fundamental variables: high return on equity (ROE), earnings stability, and low financial leverage.³

Outperformance of the quality index is notable, even more so when considering the five-year rolling relative return of the quality index, which exceeds its mainstream equivalent in 85% of

² The MSCI ACWI captures large- and mid-cap representation across 23 developed market (DM) and 24 emerging market (EM) countries. With 2,841 constituents, the index covers approximately 85% of the global investable equity opportunity set.

³ A quality score for each security is calculated by combining Z scores of three winsorized fundamental variables—return on equity, debt to equity, and earnings variability. MSCI then averages the Z scores of each of the three fundamental variables to calculate a composite quality Z score for each security and then ranks all constituents of the parent index based on their quality scores.

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...the quality index often experienced underperformance during extreme risk-on periods.

– Adam Karp
Equities Risk Manager

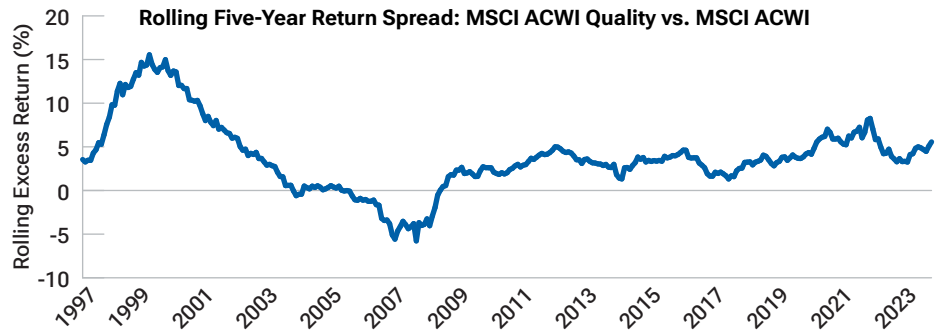
observations since 1997 (Figure 3). At least through the lens of one index definition, quality has been a consistent outperformer, albeit with cyclicality and notable periods of drawdown.

This cyclicality is better observed through an evaluation of shorter-term data. In Figure 4, we show the same analysis over a rolling six-month time frame, observing that the quality index often experienced underperformance during extreme risk-on periods. These have often followed in the wake of crisis-type events. This pattern is intuitive given that such recovery periods are often defined by broad-based improvement and high-risk tolerance. The exit from the financial crisis of 2008–2009 and the reopening of the global economy following the COVID-19 pandemic are two such examples of quality underperformance.

With each observation representing six-month periods rolled one month forward, we found that in 65% of observations, the MSCI ACWI Quality produced positive excess return relative to the MSCI ACWI. Midcycle and/or less directional markets are where quality tends to deliver a return advantage, especially where a scarcity component emerges. This growth scarcity was evident in 2023, and also in the period preceding the pandemic, where economic and earnings

Long-term outperformance of quality assets

(Fig. 3) Five-year rolling relative returns of the quality index have exceeded its mainstream equivalent in 85% of observations since 1997



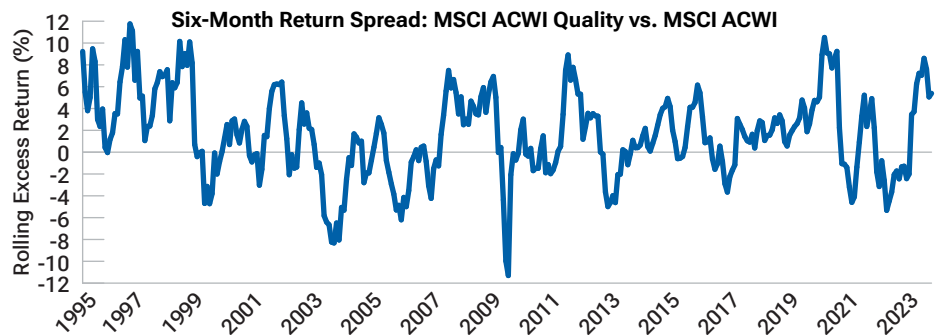
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Source: Bloomberg Finance L.P. Monthly returns.

Risk attitudes define quality asset cycles

(Fig. 4) Quality often experiences underperformance during extreme risk-on periods



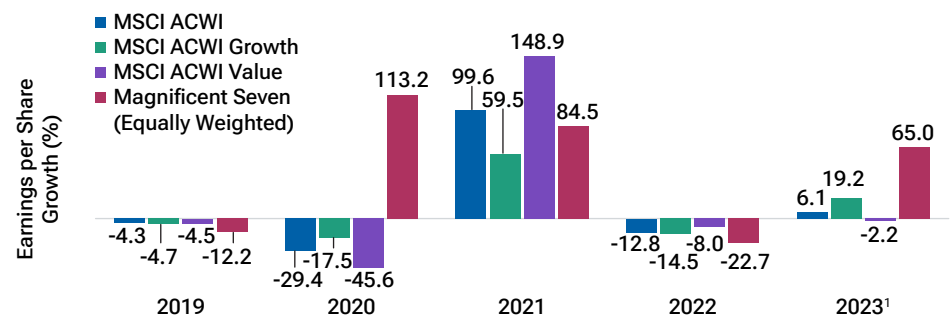
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Source: Bloomberg Finance L.P.

Robust reasons for outperformance of the Magnificent Seven

(Fig. 5) Since the pandemic, earnings growth has been markedly better than for other styles



As of December 31, 2023.

¹ 2023 consensus estimates. Actual outcomes may differ materially from estimates. Estimates are subject to change.

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growth were muted. As with any scarce commodity, as growth becomes harder to come by, investors are more willing to pay a premium.

The more recent outperformance of quality has been driven by the absence of broad economic and earnings growth, in tandem with a concentration of earnings

growth centered on the Magnificent Seven (Figure 5), a group of stocks that has risen in significance for quality investors.

The foundations of quality

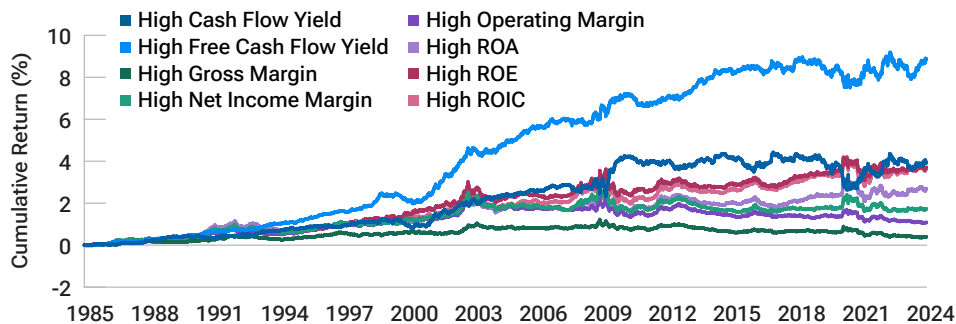
We believe there is no static definition to fully isolate “quality” given the constant evolution of economic, secular, and competitive factors that drive change within sectors and across equity cycles. While quality (alongside value and growth) is evolutionary, it is nevertheless critical to evaluate where stock fundamentals imply dimensions of quality and how this may have strong efficacy for future returns.

To demonstrate this point, we focused on the history of U.S. equity markets by evaluating the long-term compounded returns of the S&P 1500 Index⁴ (sector neutral) since 1985. Our approach aimed to give a perspective on the importance of capturing the correct definition of quality and how investors reward differing capital allocation decisions, including reinvestment for future growth, versus the return of capital via dividends.

We grouped potential characteristics into the following two broad groups using sector neutral quintile analysis.

Companies with higher ROE, ROIC, and ROA tended to shine

(Fig. 6) Companies with high free cash flow performed best



As of December 31, 2023.

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Calculations are based on trailing 12-months. This chart reflects the profitability and financial productivity measurements for the S&P 1500 Index. Where the term “high” appears in the legend of Figures 6 and 7, we imply (Quintile 1–Quintile 5), conversely, where the term “low” precedes the factor name we imply (Quintile 5–Quintile 1). In terms of factor performance of (Q1–Q5) – High minus Low and or (Q5–Q1) – Low minus High. The process involves analyzing the performance of stock baskets based on factors (Q1–Q5) or (Q5–Q1), which are created by grouping stocks within sectors and adjusting for sector bias/ i.e. sector neutral. Stocks within each sector are ranked based on factor values and divided into quintile baskets. These baskets are then aggregated across sectors to form the final baskets for the entire universe. This approach aims to ensure a balanced distribution across sectors within each factor basket, mirroring the sector. Quintiles are reconstituted monthly. Further information on factor definition can be provided on request. Sources: T. Rowe Price, Piper Sandler.

Profitability measures and economic efficacy

One of the pillars of quality focuses on profitability metrics and measures of economic productivity, including return on equity and return on invested capital (ROIC). Considering the S&P 1500 on a sector neutral basis since 1985, we found that companies

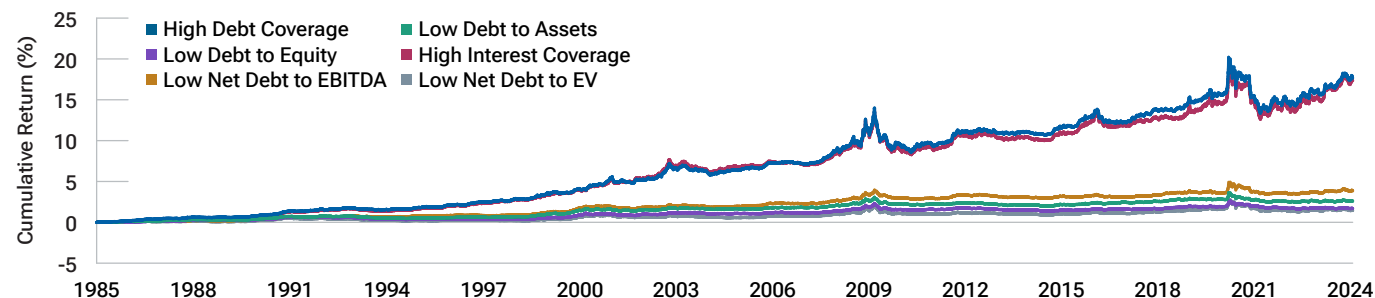
with high cash flow yield had been the dominant driver of returns within measures of profitability and financial productivity.

High ROE, ROIC, and return on assets (ROA) also appeared to perform well, albeit profit margin indicators do not appear to have strong efficacy on a standalone basis (Figure 6). This provides insight into how

⁴The S&P 1500, or S&P Composite 1500 Index, is a stock market index of U.S. stocks made by Standard & Poor’s. It includes all stocks in the S&P 500, S&P 400, and S&P 600. This index covers approximately 90% of the market capitalization of U.S. stocks and is a broad measure of the U.S. equity market.

Quality companies with high debt coverage can be good predictors of returns

(Fig. 7) Companies with high debt and interest coverage outperformed companies with low absolute measures of leverage



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investors prefer the singular measure of corporate economic success that cannot be materially influenced by accounting practices—free cash flow.

Leverage and debt service

Another component of quality often cited in quantitative and fundamental literature centers on low or sustainable corporate leverage. While leverage and balance sheet sustainability influence the assessment of quality characteristics and corporate outcomes, including free cash flow generation, leverage alone is not sufficient to capture a full perspective on quality.

High debt coverage and interest coverage are far better predictors of prospective returns over the long term versus low or absolute measures of leverage (Figure 7). This perspective links closely to the performance of companies that are defined by debt sustainability, especially through crises—financial or otherwise—and the preparedness of balance sheets for changes in financing conditions, as we saw in 2023.

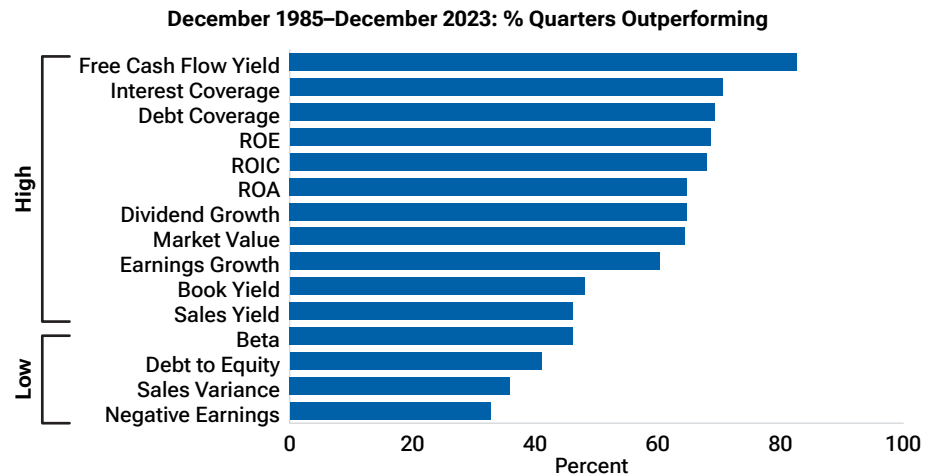
While robust fundamental analysis would always incorporate an assessment of a company's balance sheet and profitability, one clear observation is the potential tailwind that exists when focusing a portfolio on companies with high quality markers. Another way to look at the data is to consider the hit rate of individual factors by analyzing the frequency of outperformance. While affirming the benefits of high free cash flow and debt sustainability, Figure 8 demonstrates that negative earnings, sales volatility, and high levels of debt to equity were headwinds to return generation. This is intuitive given the drawdown that such stocks experienced during times of economic or industry-specific downturn or stress.

The Magnificent Seven and evolution of quality

The investment landscape of the last year and a half has been unusual in many respects. Despite strong headline equity returns, a complex macroeconomic

Free cash flow yield is key

(Fig. 8) Stocks with negative earnings and lower debt to equity have underperformed



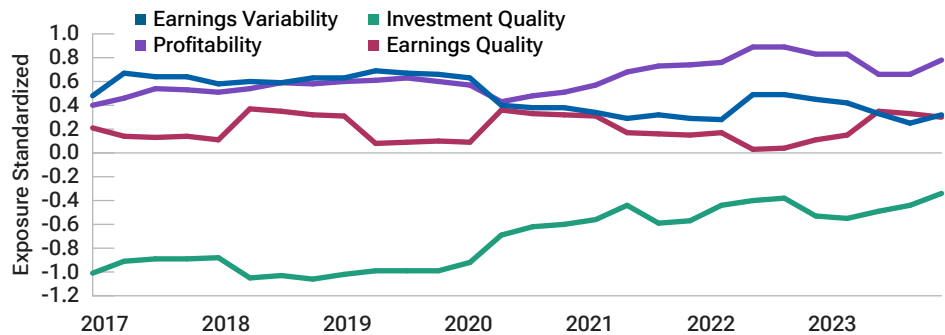
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Negative Earnings are companies which have negative earnings. i.e. <0, they are running a net loss. Sales Variance using a 4-Year Variance in Year-over-Year for trailing 12 months sales growth. Performance spread hit rate is measured by quintiles (Quintile 1 outperforms Quintile 5) for “High” and Quintile 5 outperforms Quintile 1 for “Low.” These are measured on rolling 3month periods – i.e. each period represents a 3 month window which is rolled forward 1 month for every observation. Beta, debt to equity, sales variance and negative earnings are all “low” (Quintile 5–Quintile 1) factors; all other factors in the chart are “high” (Quintile 1–Quintile 5). The quintiles are reconstituted monthly. S&P 1500 is the universe of companies. Sources: T. Rowe Price, Piper Sandler.

The evolution of the Magnificent Seven

(Fig. 9) Investment quality, earnings, and profitability have all improved for this select group of companies



As of December 31, 2023.

Calculated using Barra Risk Model (GEMTL—The Global Equity Model).

The exposure scores represent z-scores/standardized exposure values. This is done in order for comparability and is standard practice in risk models. A score of “0” implies an exposure equal to that of a the regression-cap weighted universe. A positive score indicates a score larger and a negative score indicates a score smaller.

Source: MSCI Barra (see Additional Disclosure).

backdrop persisted throughout the year encompassing:

- Extreme and unpredictable inflation
- Heightened geopolitical tensions

— Bank failures, albeit without any meaningful credit or unemployment cycle

— Anemic global economic and earnings growth—excluding the Magnificent Seven

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The changing nature of the global economy has been a driving force in the emergence and evolution of digital champions, not as concept, but as dominant in their industries and historically profitable cash flow generators.

– Laurence Taylor
Equity Solutions Portfolio Manager

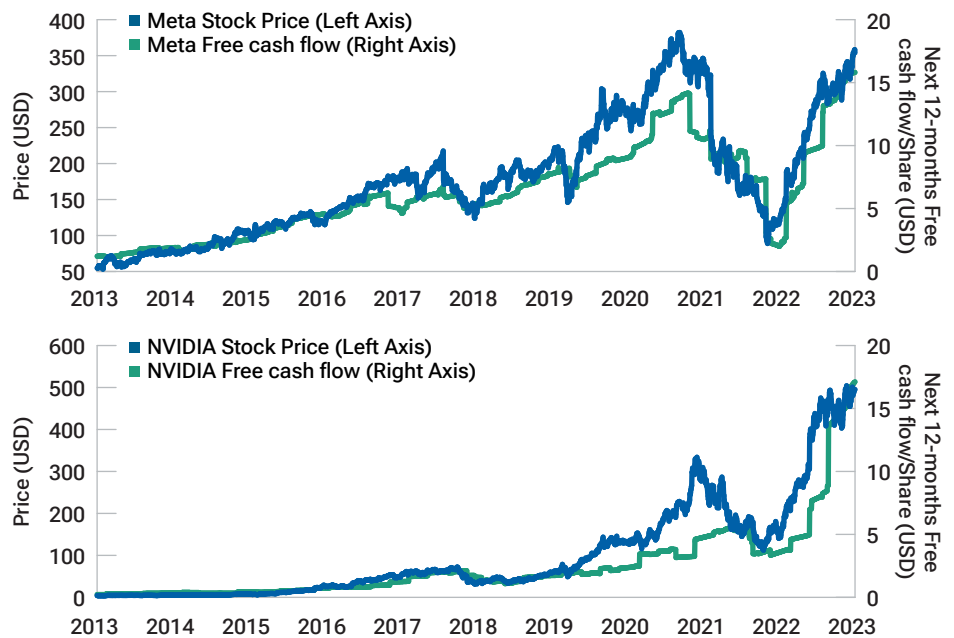
While uncertainty abounded, the Magnificent Seven emerged as an economic force that helped equity markets push through these meaningful economic challenges. One of the clear reasons for the strong performance was the evolution of their individual and collective quality fundamentals. While each company has been through significant evolution and profitability cycles in the age of digitization, more recently, we have witnessed a marked decrease in earnings variability coupled with significant enhancements in profitability and investment quality (Figure 9).

⁵ As defined by Barra.

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Rise in free cash flow is more likely to be rewarded by markets

(Fig. 10) Inflection point in free cash flow for Meta and NVIDIA

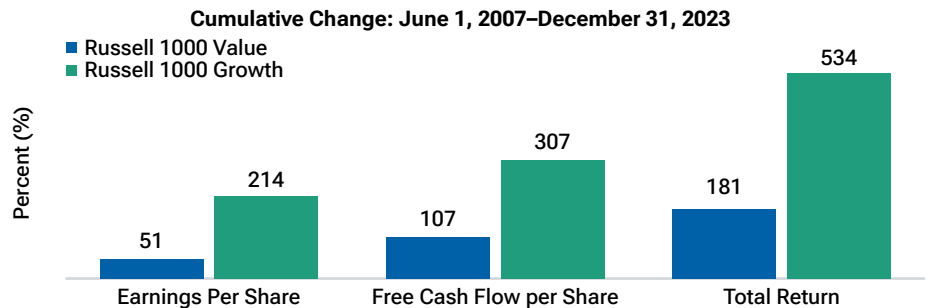


As of December 31, 2023.

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Robust reasons why growth has outperformed value

(Fig. 11) Clear difference in earnings-per-share and free cash flow helped drive growth outperformance



As of December 31, 2023. Trailing 12-months figures.

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In addition, the earnings quality⁵ of these firms has witnessed improvement to the upper end of the range in recent quarters as disruptive concepts have evolved into established and more profitable

businesses. This evolution has adjusted interest in these types of companies to a broader range of investors, including those seeking qualitative or quantitative quality exposure.

Considering the individual characteristics of stocks like Meta and NVIDIA, it is clear to see the change in the fundamental profile from a quality lens. While the drivers of these two stocks have very different origins, the inflection in their free cash flow profiles in 2023 is a clear and dominant force (Figure 10). This is especially notable given that the average company saw its economics and balance sheet squeezed by higher interest rates, while free cash flow levels were challenged by a combination of higher inflation and economic deceleration.

The driving force behind this evolution can be attributed to one component of quality assessment that is less widely recognized: exposure to secular trends. The changing nature of the global economy has been a driving force in the emergence and evolution of digital champions,

not as concept, but as dominant in their industries and historically profitable cash flow generators. In many respects, this has reshaped the fundamental characteristics of growth investing, broadening out the opportunity set and economic maturity/profitability of the growth index (Figure 11).

While the trend of digitization redistributing profits and free cash flow to growth champions has been playing out for many years, an upswing in profitability, coalescing with the beginning of the AI infrastructure cycle, has seen the dimensions of quality evolve. We expect the addition of secular components to become an important part of quality investing going forward, and investors should factor this in to their portfolio construction.

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