

The many faces of growth

- Investors often wonder: Is there a distinct growth factor premium?
- Growth can be the opposite of value, a dimension of quality, or business momentum
- Expected premium can be negative, flat, or positive depending on the definition

Quantitative investing is inspired by the finding that various stock characteristics are associated with higher returns. Widely recognized factor premiums include value, momentum, quality, and the low-risk effect. In this article we examine whether a distinct *growth* factor premium can be identified alongside these thoroughly established factors.

We argue that there is no unequivocal answer to this question because growth can be defined in many different ways. And, depending on whether growth is interpreted as the opposite of value, a dimension of quality, or business momentum, the expected growth premium can be either negative, flat, or positive.

Growth as the opposite of Value

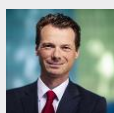
The value premium reflects the return difference between stocks with cheap versus expensive valuation multiples, based on metrics such as the price-to-earnings or price-to-book ratio. In the academic literature cheap stocks are commonly referred to as value, while expensive stocks are called growth. In other words, growth is defined as the opposite of value. Since stocks trading at expensive valuation multiples on average tend to underperform in the long run, this implies a growth premium that is negative.

This perspective helps to explain why quantitative investors are often considered to be betting against growth. Indeed, multi-factor strategies tend to invest more in cheap stocks than their expensive counterparts, but valuation is always balanced against all the other factors in the model. An expensive stock may still outperform the market if it has great scores on factors such as quality and momentum, while a cheap stock can underperform if it scores poorly on the other factors – these are the classic ‘value traps’.

In other words, the value factor represents just one of the votes in a multi-factor model, which can effectively be overruled by the rest of the model. As a result, not all expensive stocks are automatically underweighted, nor are all cheap stocks automatically overweighted. This is illustrated in Figure 1, which shows the distribution of the over- and underweights across five valuation buckets for our Enhanced Indexing strategy in Global Developed Markets. Although the cheapest stocks are mostly overweighted, some are also underweighted. Similarly, although the most expensive stocks are generally underweighted, some are actually overweighted. This is a typical outcome for multi-factor models that aim for a balanced exposure to multiple factors at the same time.

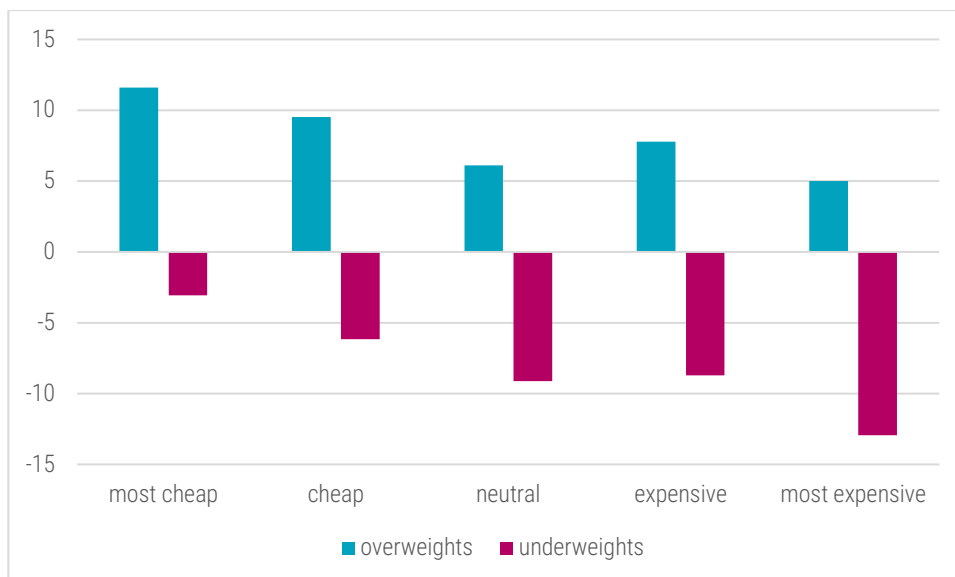
ARTICLE APRIL 2025

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Figure 1 | Over- and underweights in five valuation buckets of Robeco Global Developed Markets Enhanced Indexing strategy, December 2024



Source: Robeco. December 2024. This chart is for illustrative purposes only.

In real life, however, practitioners do not usually define growth as the polar opposite of value. Growth investors in particular object to their investment style being characterized as buying stocks trading at the most expensive valuation multiples. Instead, they see their objective as being to identify stocks likely to deliver (even) more growth than priced in by the market. Although this typically leads to a portfolio with an elevated valuation level, this tilt arises as a byproduct of the investment style rather than actually being the goal in itself. Thus, value and growth investing are not inherently contradictory but represent distinct approaches focused on different aspects of a stock's potential.

The MSCI Value and Growth indices, which each target 50% of total market cap, consider both these approaches. Value scores are based on the (i) book value to price ratio, (ii) 12-month forward earnings to price ratio, and (iii) dividend yield. The growth dimension is based on the (i) long-term forward EPS growth rate, (ii) short-term forward EPS growth rate, (iii) current internal growth rate, (iv) long-term historical EPS growth trend, and (v) long-term historical sales per share growth trend.

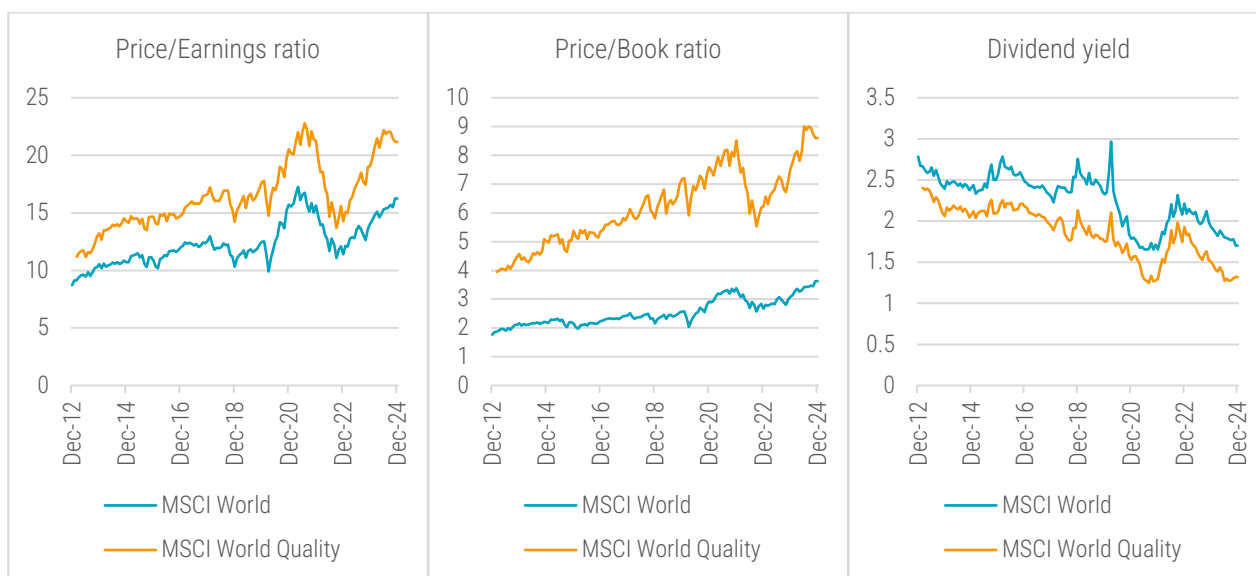
In other words, value stocks have cheap valuation multiples, while growth stocks have high past and future expected growth in earnings and sales. Although the majority of stocks are either firmly value or growth according to this definition, there are also plenty of examples of stocks that qualify as both, or as neither.

Growth as a dimension of Quality

Quants are quite familiar with the kind of earnings and sales growth metrics used by MSCI or fundamental investors, but usually consider these to be a potential dimension within a broader quality factor. This factor is about the strength of company fundamentals without taking into consideration how much has to be paid for this; something that also applies to growth metrics.

Moreover, and also similar to growth, quality tends to veer towards more expensive stocks. This is illustrated in Figure 2, where three charts show the valuation of the MSCI World Quality index versus the parent market index over time. Regardless of whether we consider the P/E, P/B, or dividend yield, the Quality index is structurally more expensive than the market. All this supports the idea of treating growth as a potential dimension of quality.

Figure 2 | Relative valuation MSCI World Quality, December 2012 to December 2024



Source: Robeco, MSCI World, MSCI World Quality index. December 2012 to December 2024. These charts are for illustrative purposes only and do not represent any particular product or strategy.

Of course, growth could potentially be elevated from a building block for the quality factor definition to a primary factor in its own right. For that, however, it would need to have compelling performance and be clearly distinct from other factors, quality or otherwise.

To examine whether this is the case we employ the factor library of Jensen, Kelly, and Pedersen¹, which contains historical returns of over 150 factors. We consider the factors for the US stock market that are available with a history of more than 60 years, calculated with the default 'capped value weighting' methodology which ensures that neither micro-caps nor mega-caps dominate the results.

Figure 3 shows premiums of around 5 to 7% per annum for value factors such as the free cash-flow to price ratio and the EBITDA to enterprise value ratio; momentum factors based on the stock return over the past twelve months excluding the most recent month; and quality factors such as cash-based operating profitability and net operating assets, which can be interpreted as cumulated accruals and investments.

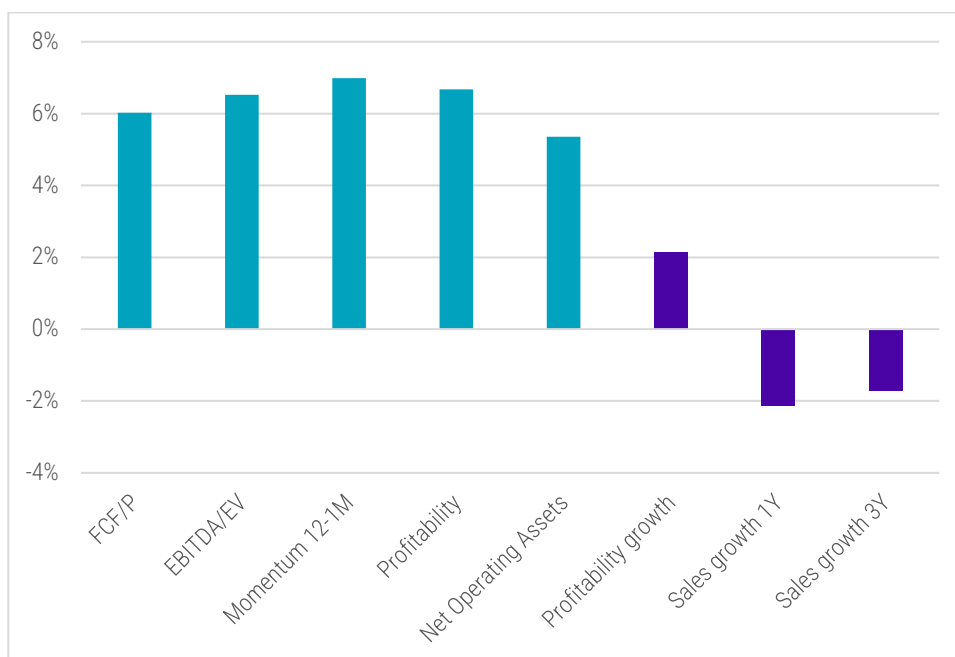
By contrast, profitability growth, a composite measure of the growth in various profitability ratios, carries a return of just 2%, while sales growth even has a negative return of around -2%. In other words, companies with high sales growth over the previous one or three years tend to have below-average subsequent returns.

The latter result is consistent with the findings in the classic study on value investing by Lakonishok, Shleifer, and Vishny (1994)². They argue that investors tend to extrapolate past growth too far into the future, causing these stocks to become overpriced. Although some growth stocks may live up to the high expectations that are priced in, the vast majority fails to do so due to competitive pressure, resulting in underperformance. Similarly, cheap stocks with poor growth in the past tend to bounce back more frequently than anticipated, for instance following reorganizations or changes in leadership.

¹ Available at <https://jkpfactors.com>

² www.jstor.org/stable/2329262

Figure 3 | Historical performance of selected US factors, July 1963 to December 2023



Source: Jensen, Kelly, and Pedersen factor library. July 1963-2023. This chart is for illustrative purposes only and does not represent an actual product or strategy.

The weak or even negative stand-alone performance of growth factors implies that they are not top candidates for inclusion in a multi-factor quantitative stock selection model. While a small weight within a broader quality factor basket might have diversification benefits, it is clear that growth is not a solid factor in its own right on a par with established quant factors.

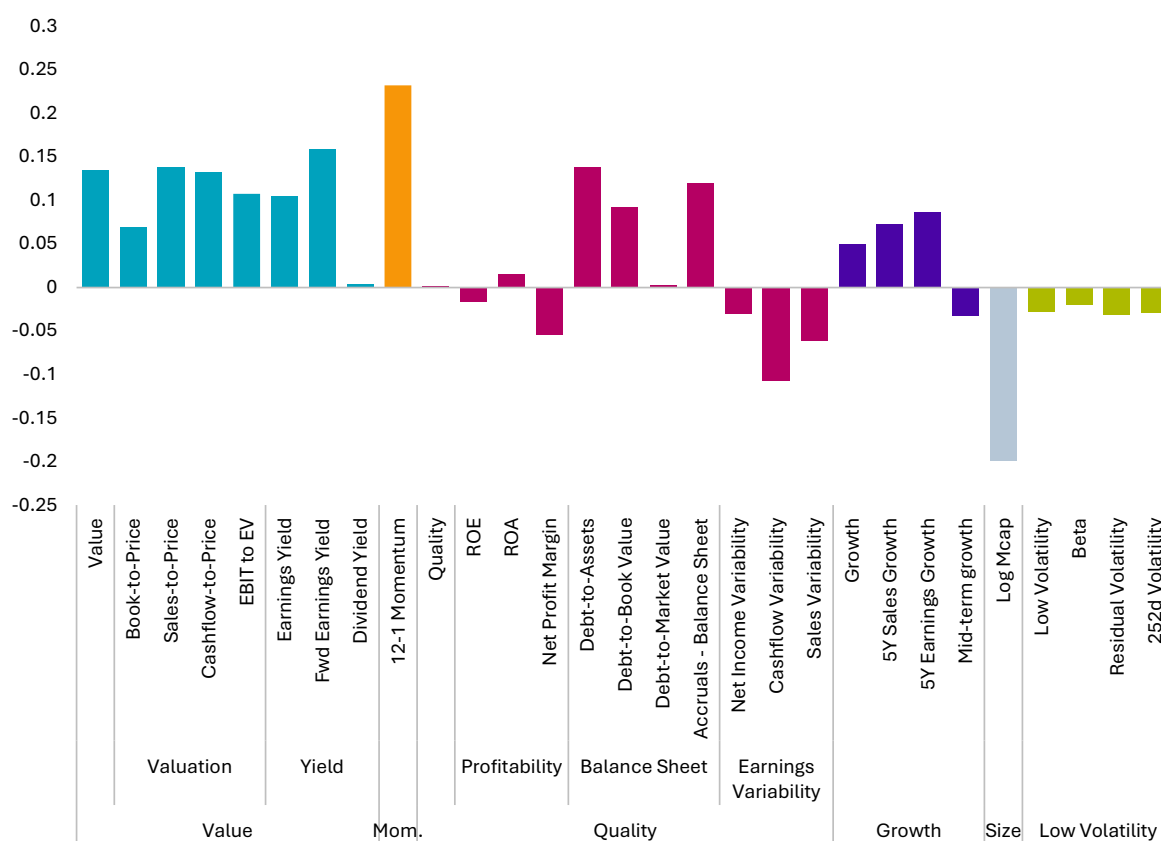
Furthermore, in our paper Factor Zoo (dot Zip)³ we conduct a horse race to identify the dominant factors in the factor zoo and find that growth factors fail to make it into the top 15. For these reasons our portfolios typically have little exposure towards earnings or sales growth factors: we do not believe there is a lot to be gained by tilting strongly towards growth, but also prefer not to bet too heavily against it.

This is illustrated in Figure 4, which shows the exposures of our Enhanced Indexing strategy in Global Developed Markets to various generic factor definitions. As discussed in our recent article on third-party style analysis tools⁴, the portfolio tilts towards value and momentum are easily detected. Tilts towards quality factors are less clearcut, because our proprietary quality factors differ significantly from generic definitions. Exposures towards growth factors are marginally positive on average, but dwarfed by the exposures to other factors.

³ www.pm-research.com/content/iijpormgmt/50/3/11

⁴ www.robeco.com/en-int/insights/2024/11/more-than-meets-the-factor-eye-hidden-depths-in-next-gen-quant-investing

Figure 4 | Exposures of Robeco Global Developed Markets Enhanced Indexing strategy to generic factors,



Source: Robeco. July 2024. This chart is for illustrative purposes only.

Growth as Business Momentum

So far, we have defined growth as either (1) the opposite of value, i.e. expensive stocks, or as (2) high growth in earnings or sales, based on backward-looking data or derived from analyst expectations. The former interpretation justifies a negative exposure, while the latter interpretation argues for little or no exposure. However, the concept of growth is open to many more interpretations, which may help explain why growth can be prominent in the models of some quant managers.

Consider, for instance, the factor replication paper of Jensen, Kelly and Pedersen (2023)⁵, which uses statistical clustering techniques to assign over 150 factors to 13 factor clusters. One of these factor clusters is labeled “profit growth” as it contains various factors measuring growth in profitability. However, it also includes factors without any obvious link to profit growth, such as a price momentum factor (return over month $t-12$ to $t-7$), earnings surprise factors, and seasonal signals. The clustering algorithm probably classifies these factors as growth based on their correlations with actual growth factors, although conceptually speaking they could also be assigned to other clusters.

Another example from the academic literature is the expected growth factor of Hou, Mo, Xue, and Zhang (2021)⁶, which aims to measure expected growth in investments. Although the authors call it a growth factor, their results show that it loads heavily on known profitability factors, in particular cash-based operating profitability. Hence, it is probably better understood as an enhanced profitability factor instead of a distinct growth phenomenon.

⁵ <https://onlinelibrary.wiley.com/doi/full/10.1111/jofi.13249>

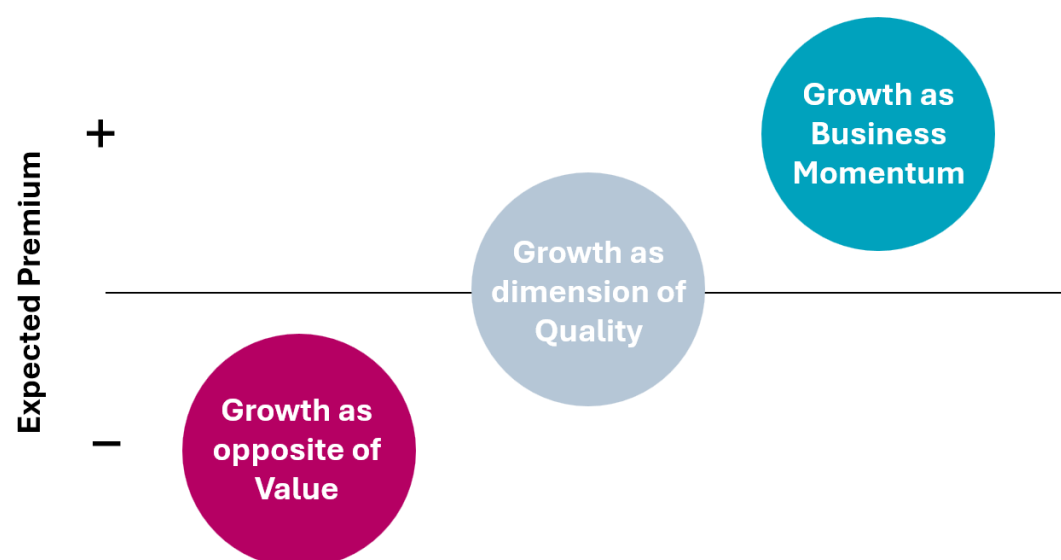
⁶ <https://global-q.org/uploads/1/2/2/6/122679606/q5rf2021.pdf>

Earnings revisions by analysts might also be seen as a growth factor, because when earnings forecasts are revised upwards the implied growth rate compared to past realized earnings increases accordingly. Following this reasoning, many signals that relate to short-term market sentiment or business momentum may be labeled growth, for instance changes in credit card expenditures, increased media attention, new job postings, expansion of analyst coverage, and so forth. This perspective can justify an expected premium for growth that is positive. However, one has to bear in mind that an improved short-term outlook may be quite different from long-term earnings and sales growth pathways.

Summary

When growth is claimed to be an alpha factor, one may first want to determine the specific growth definition used and whether this aligns with one's intuitive understanding of growth, or if a different label would perhaps be more appropriate. In this article, we find that growth may be defined as the opposite of value, a dimension of quality, or as business momentum, and depending on this preference the expected premium may be negative, flat, or positive. Figure 5 summarizes our findings.

Figure 5 | Summary of findings



Source: Robeco. This chart is for illustrative purposes only.

If growth is defined as the opposite of value, i.e. stocks trading at high valuations, quant investing strategies generally come down to betting against growth. Expensive stocks can still enter the portfolio, but only if their high price tag is amply offset by strong scores on other alpha factors such as quality and momentum.

Growth can also be measured as the trend in past or expected earnings or sales. These kind of growth variables are commonly treated as a potential dimension of a broader quality factor. However, their stand-alone performance is generally weak compared to core quality factors such as profitability and accruals, so multi-factor models tend to have little or no exposure to this flavor of growth.

Finally, various price momentum and business sentiment indicators may also be labeled as growth, which helps to explain why growth is sometimes claimed to be an alpha factor on a par with established factors.

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