JULY 2023

3Q 2023 Strategic Investment Outlook

A Narrow Market and Sentiment

A narrow market, led higher by a small number of stocks, has been doubly painful for many investors in 2023. First, a strong consensus for more cautious positioning earlier this year removed a tailwind, and it's difficult to outperform when leadership is concentrated in a few large cap names. In this note, we discuss what this landscape means for investors, especially as it pertains to the attractiveness of more strategic positions.

Short-term sentiment is not supportive, but as horizons are extended out, there are more supports for risk assets beyond central bank messaging. At long investment horizons, many investors who care about defending purchasing power will likely need to add to equity weights. The difficulty comes in balancing that need with short-term caution.

We discuss what this situation means for active managers. While the recent narrow market has been more challenging, emerging markets and small caps stand out as areas where idiosyncratic alpha has still been achievable.

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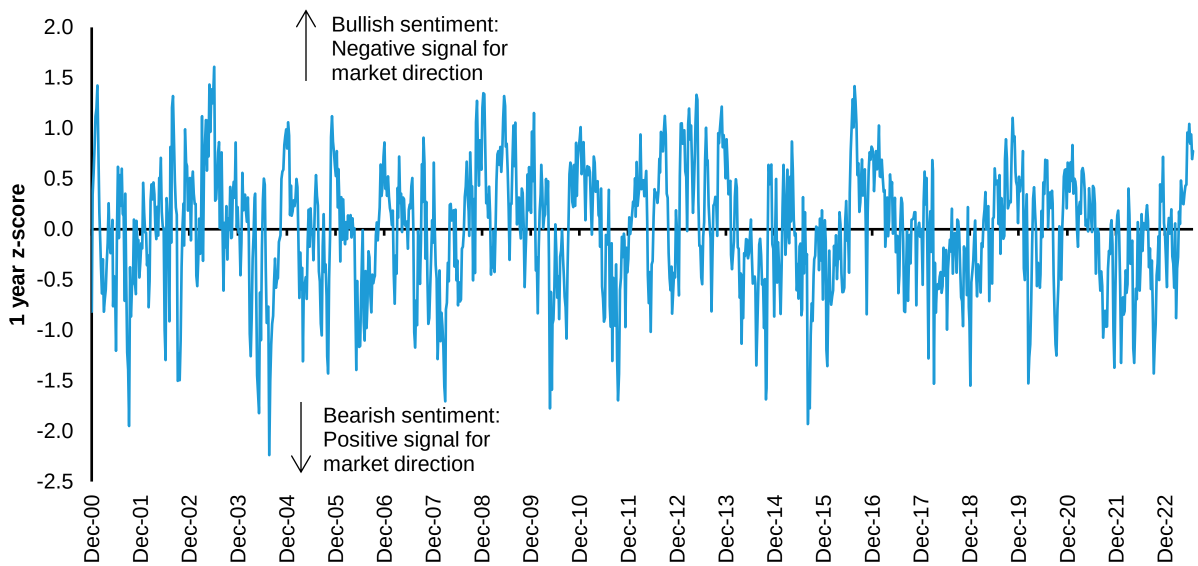
O ye who tread the Narrow Way, By Tophet-flare to Judgement Day[1]

The second-quarter rally in risk assets has been a painful experience for many investors. One of the most common tactical questions we were asked earlier this year was about the apparent contradiction of an inverted yield curve and buoyant markets. If anything, that conundrum has just become more stark. We ourselves were also cautious in previous guidance, anticipating a sideways, volatile market, and our metric of short-term sentiment has since moved even higher. The composite sentiment indicator (*Display 1*) crossed the threshold of one standard deviation above its historical average on June 16. While it has moderated slightly since, it's still relatively elevated; taken at face value, this implies the equity market would retrace some of its recent strength over a short-term tactical horizon.

DISPLAY 1: COMPOSITE SENTIMENT INDICATOR SUGGESTS SHORT-TERM WEAKNESS



Historical analysis and current estimates do not guarantee future results.

The composite sentiment indicator is a weekly series showing the equal-weighted average of 52-week z-scores of the VIX volatility spread, put/call ratio (based on the total volume of puts and calls on CBOE), CFTC Nasdaq speculative positioning, II survey Bull/Bear ratio, and equity fund flow data from EPFR. The measure is a contrarian indicator: overly bullish sentiment would trigger a sell recommendation and excessively bearish sentiment a buy signal. The signal has the greatest efficacy over short time horizons of about 4 to 6 weeks.

Data as of July 18, 2023

Source: CFTC, CBoE, Bloomberg, Datastream, Bernstein Research Portfolio Strategy, AB

This sentiment indicator integrates a broad range of tactical sentiment signals, but three of the five inputs individually indicate market weakness from here. Specifically, they are 1) 2.2x as many bulls versus bears in the AAII survey; 2) a low number of puts to calls compared to the past year and; 3) an elevated level of non-commercial trader positioning. While these might be construed as more "quant" signals, the results fit within the context of projected slowing growth, the latest projected move higher in interest rates and the prospect of a retrenchment in credit provision.

Having said that, the narrowness of the market is relevant here and raises a question of how much weight to put on these types of indicators. When the increase is really a function of a handful of securities, a degree of caution is suggested in applying such a technical sell signal. However unsatisfying it may be, we suggest that the tactical advice remains caution and positioning for downside risk. Thus, investors looking for an attractive entry point into a more strategic equity position may wish to wait for a better one.

We would argue that the strategic case for equities, by contrast, rests on the need to protect the purchasing power of portfolios with an exposure that counts as a real asset. Our view is that in the new investment regime, inflation will find an equilibrium

[1] Kipling, *Buddha at Kamakura*

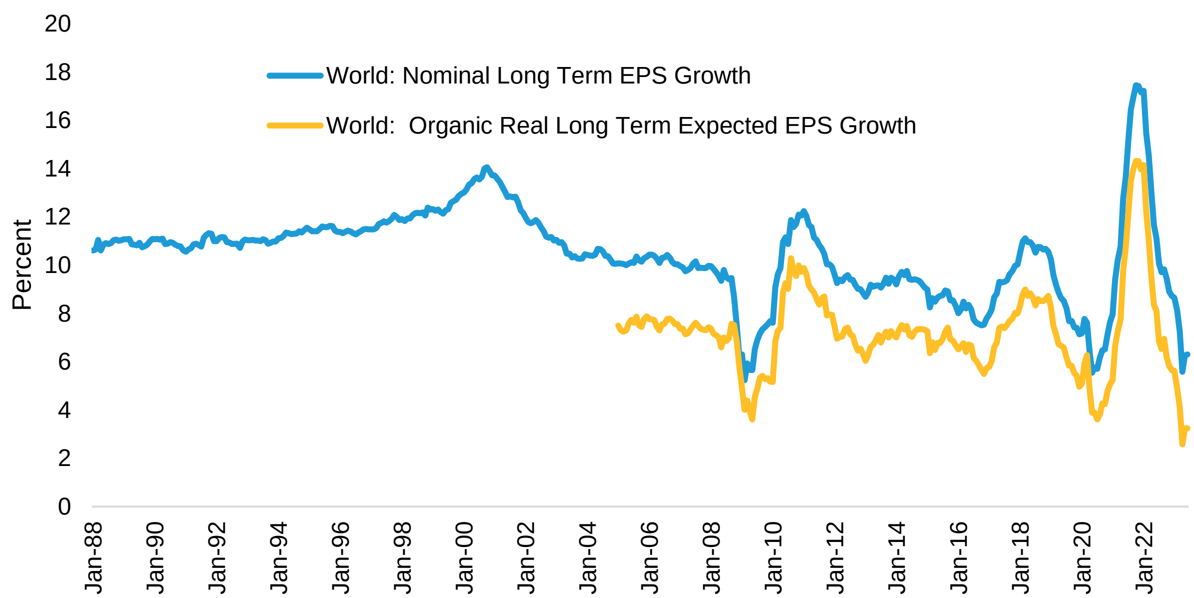
above the pre-pandemic level but not in unanchored territory. At that level, equities behave like a real asset, so equity beta is an important part of a mandate that needs to generate a real return.

Despite the near-term constraints on equities, for investors with longer horizons, there are emerging supports for a medium- and long-term view where risk assets may start to have a narrative of their own, rather than being linked to endless speculation about the rate cycle.

With that point in mind, there is inevitably much debate about whether near-term consensus earnings-growth expectations have been adequately adjusted for slowing growth and a contraction in credit availability. We think analysts are most of the way though that adjustment (our own indicator of one-year-ahead US earnings growth has stabilized recently at around 2.5%). We see a more stark signal in forecasts of long-term earnings-growth expectations, which have fallen to historically low levels. The aggregate consensus expectation for long-term earnings-per-share (EPS) growth has fallen to 6.3% annualized (*Display 2*), in line with the lowest levels reached before during the Global Financial Crisis and the COVID-19 lockdown.

That might be a strong signal in itself, but we would stress that security analysts make forecasts in nominal terms, while corporations exist in the real economy, able to pass through at least some inflation. If we subtract expected inflation,[2] forecasts look even more stark. A further adjustment is also required, because EPS is lifted by net buybacks. We expect the rate of net buybacks to abate from the current record level, but there is strong evidence that buybacks will continue to exceed issuance over the forecast period. Thus, we subtract the 10-year average level of net buybacks to derive a real, organic expected EPS growth estimate. This figure was 2.6% at the end of April, by far its lowest level ever, suggesting that sentiment for corporate-sector growth over the next five years is too low.

DISPLAY 2: EXPECTATIONS OF LONG-TERM EARNINGS GROWTH ARE HISTORICALLY LOW



Historical analysis and current estimates do not guarantee future results.

The organic real LTG series shows the Global Long Term EPS Growth consensus forecast deflated by the US 10-year breakeven inflation rate and adjusted for 10-year average net equity issuance.

As of June 30, 2023

Source: Factset, IBES, MSCI and AB

This depressed forecast comes with an abundance of health warnings. Specifically, the number of analysts submitting a long-term growth estimate has been declining over time (although not markedly during the abrupt decline in forecasts over the past

[2] We subtract the 10-year breakeven inflation number

year). Fewer forecasts means that, for many large cap stocks, there are only one, two or even no forecasts available—clearly a less densely populated forecast than one would ideally prefer to form a strong conclusion.

Having said that, the pattern is very similar across regions and sectors; the median forecast is also close to the bottom end of its historical range at 8.6%, implying the aggregate is not skewed by outliers. An element of this situation is a very bleak long-term assessment of the EPS outlook for global energy and commodity stocks. Presumably, this partly reflects a cyclical downturn in commodity demand and fears about the impact of the energy transition on this sector, but within growth sectors such as tech and healthcare, expectations are low both in the US and globally.

The shift down in long-term growth expectations sits especially oddly with the latest move up in the market, which has been driven largely by speculation of productivity and growth gains from artificial intelligence (AI). We will leave a discussion of AI's possible role in changing the trajectory of aggregate growth for a future note, but it is odd that this driver has coincided with an outright decline in expectations.

To be clear: we do think that both growth and profit margins are set to decline from the very high levels of recent years, and it's possible that this low-growth forecast partly reflects that. We would expect margins to return to average levels of recent decades, but the forecast of the lowest-ever real earnings growth is too much—we think analysts have become too bearish.

The conclusion from this is that in a strategic context, investors who ultimately must beat inflation likely still have to increase risk levels, whether that's through illiquid assets, equities, factors or active management. This was the conclusion of our recent Black Book. There are also emerging points of medium-term support for equities. However, for investors who can be tactical, they can likely find a better entry point for risk assets.

A Tough Time for Active Management– Except for Emerging Markets

The market structure we discussed in the previous section—extremely narrow leadership by a handful of mega-cap growth stocks—is having significant implications for the active management industry. When the index is as concentrated—in both market cap and performance—in a few very large names as it is today, it becomes extremely difficult to keep up with it, even for the most concentrated managers. Effectively, the narrow market reduces the number of profitable opportunities for active managers. The framework laid out by Grinold in his Fundamental Law of Active Management linked performance, measured by Information Ratio (IR) to manager skill, measured by the Information Coefficient (IC), and breadth of opportunity (B), representing the number of independent trades available to managers:

$$IR = IC\ x\ \sqrt{B}$$

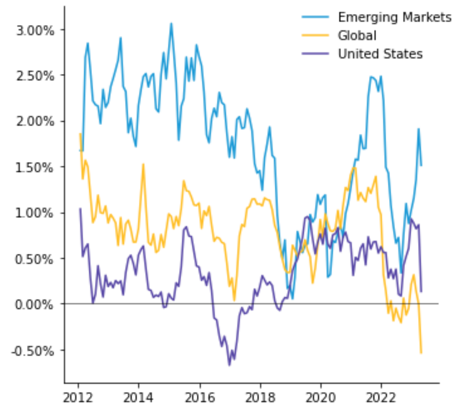
Even for the most skilled managers, it is hard to translate that skill into meaningful positions and generate IR when, on a relative basis, having correct views on most stocks in the index has such little impact on excess returns.

The average three-year annualized excess return for our large sample of active equity managers with global benchmarks is now negative (*Displays 3* and *4*). In fact, the annualized returns delivered by this group over the past three years has been the lowest in a decade. Managers with US benchmarks have also seen their performance deteriorating sharply, but are still just managing to outperform on a three-year horizon. In both regions, performance has also collapsed in idiosyncratic terms—the Idiosyncratic Alpha (IA) US and global managers generate is now negative, so it is not just cyclical headwinds stemming from factor exposures that are hurting managers, but also the lack of ability to generate value through stock picking or tactical timing at the moment.

Emerging markets (EM) is one standout where excess returns are positive and have been improving recently. EM managers are also generating positive IA—that is, they are adding value through investment skill, rather than just from the "luck" of being exposed to the right factors. We will take a more detailed look at where this alpha comes from below, but combined with our positive top-down tactical view on EM[3], this situation strengthens the case for including EM in allocations, in our view.

[3] See Emerging Markets from the Asset Allocator's View

DISPLAY 3: THREE-YEAR ROLLING EXCESS RETURN, % ANNUALIZED

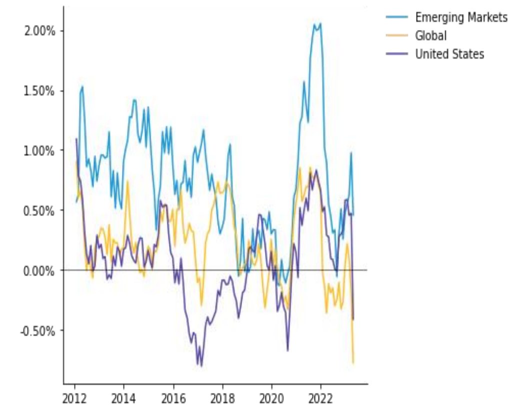


Past performance does not guarantee future results.

As of April 30, 2023

Source: eVestment, FactSet, Morningstar, MSCI, S&P and AB

DISPLAY 4: THREE-YEAR ROLLING TOTAL IDIOSYNCATIC ALPHA (IA), % ANNUALIZED



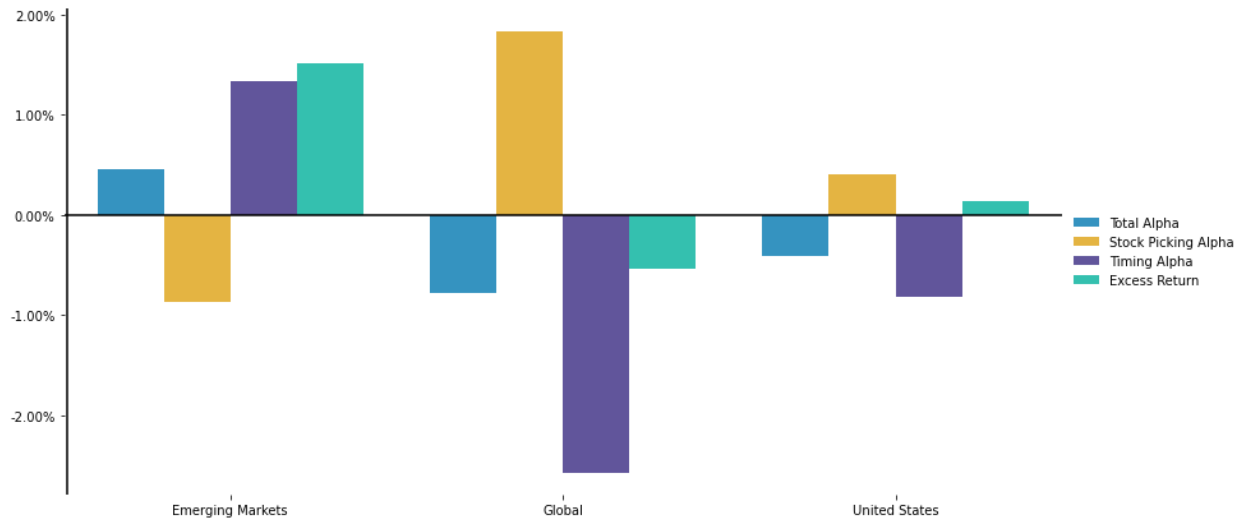
Past performance does not guarantee future results.

As of April 30, 2023

Source: eVestment, FactSet, Morningstar, MSCI, S&P and AB

Display 5 gives a snapshot of the past three years' annualized performance numbers for EM, global and US, and splits total IA into stock picking and timing skill.[4] Interestingly, managers with global and US benchmarks have been effective at picking stocks recently, with the annualized three-year stock-picking alpha positive in both cases. It is timing exposures that, on average, has let managers down. We suspect that, over the past three years, the rotation from growth to value and then back again has proved hard to navigate, whether the tactical timing attempts were explicit or merely accidental to other tactical investment decisions. Again, EM managers have been an exception: their security selection alpha was actually negative, but timing alpha more than made up for that shortfall. On top of that, strategic factor exposures also contributed positively to excess return.

DISPLAY 5: THREE-YEAR TRAILING EXCESS RETURNS, TOTAL IA, STOCK PICKING IA AND TIMING IA



Past performance does not guarantee future results.

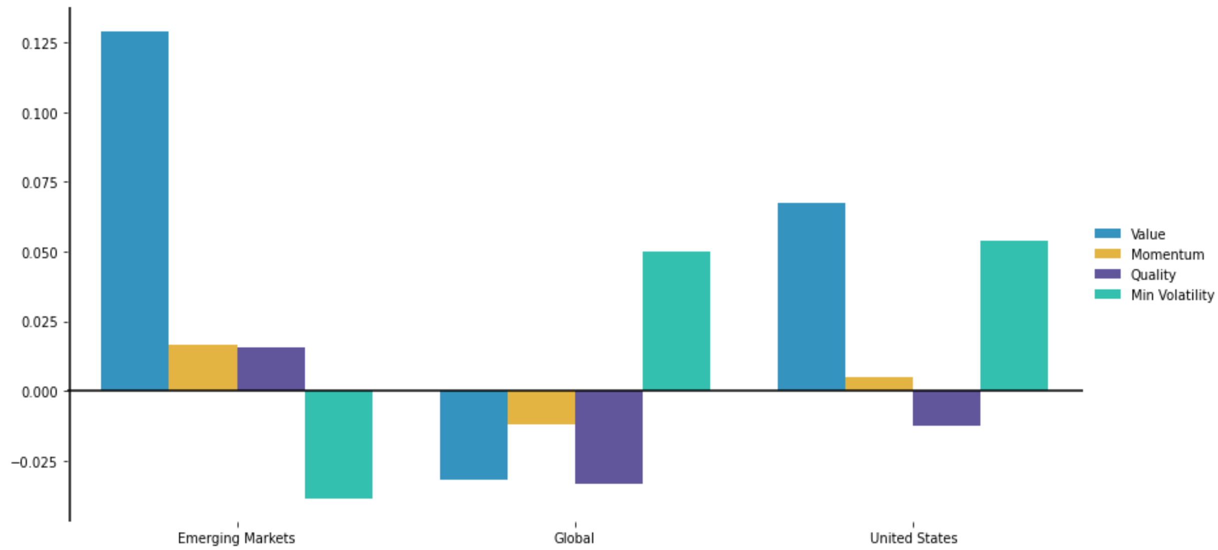
January 30, 2012, through April 30, 2023

Source: eVestment, FactSet, Morningstar, MSCI, S&P and AB

[4] IA is alpha adjusted for common factor exposures. We estimate stock-picking and timing IA via a two-stage linear regression of manager excess returns on the excess returns of value, quality, momentum and minimum volatility; timing alpha is estimated using quadratic factors. Total IA is the sum of stock picking and timing IA.

Display 6 is a snapshot of the past three years' factor positioning by active equity managers. It shows exposure to value, momentum, quality and minimum volatility measured by the coefficients in regressions of managers' excess returns on the excess returns of these factors, aggregating them for each universe. Factor coefficients give us insight into the extent that a manager's return versus the benchmark is driven by a particular factor—these are more static and more strategic exposures than those captured by factor timing. In *Displays 7–9*, we show how the same exposures have changed through time, plotting rolling three-year factor betas.

DISPLAY 6: THREE-YEAR FACTOR EXPOSURES OF GLOBAL-, US- AND EM-BENCHMARKED MANAGERS

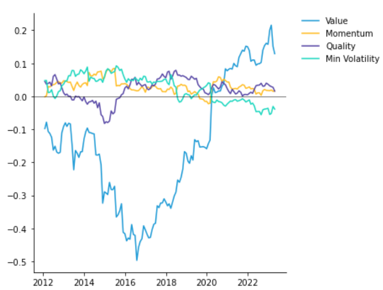


Past performance does not guarantee future results.

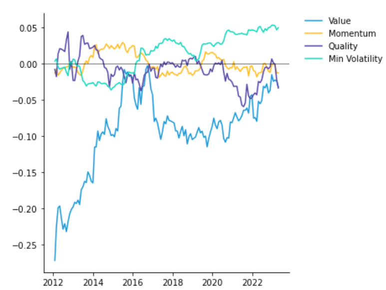
January 30, 2012, through April 30, 2023

Source: eVestment, FactSet, Morningstar, MSCI, S&P and AB

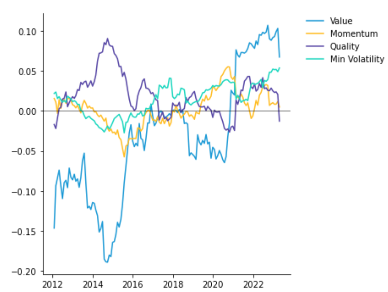
DISPLAY 7: EM MANAGER FACTOR EXPOSURES



DISPLAY 8: GLOBAL MANAGER FACTOR EXPOSURES



DISPLAY 9: US MANAGER FACTOR EXPOSURES



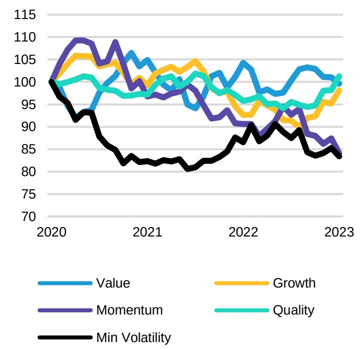
Current analysis does not guarantee future results.

As of April 30, 2023

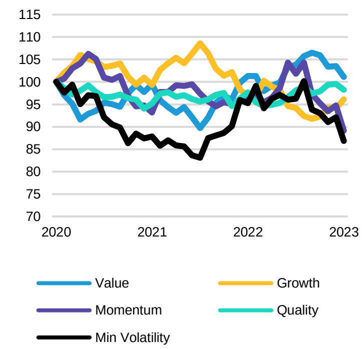
Source: eVestment, FactSet, Morningstar, MSCI, S&P and AB

Value exposure is one immediately striking difference between managers in different regions: managers with EM benchmarks have had larger exposures over the past three years, on average, than managers in other regions. Global managers have been the most "growthy," with a negative average value exposure. Another interesting difference is minimum-volatility exposures, with global and US managers “overweight” while EM managers have had negative exposure. As we can see from *Displays 10–12* below, this has had clear implications for active returns.

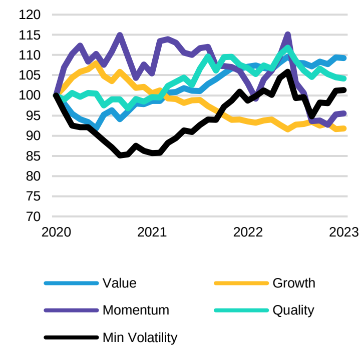
DISPLAY 10: FACTOR RETURNS



DISPLAY 11: US FACTOR RETURNS



DISPLAY 12: EM FACTOR RETURNS



Past performance does not guarantee future results.

As of May 31, 2023

Source: eVestment, FactSet, Morningstar, MSCI, S&P and AB

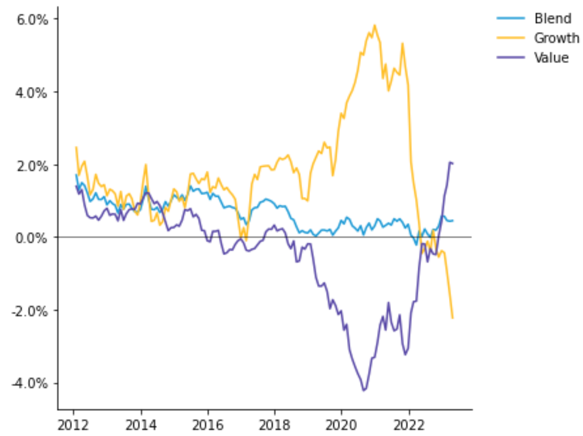
In the following sections, we’ll look beneath the aggregate numbers to see how different types of strategies— specifically as grouped by style tilt and investment process—have fared recently in terms of performance in each region. We will see that the very concentrated nature of equity market returns and the narrow leadership are profoundly impacting developed market (DM) global and US benchmarked managers across the board, but particularly so those with traditional systematic/quantitative approaches. These approaches have seen their performance start to deteriorate again after the past couple of years’ recovery.

Growth Managers Suffering; Value Managers Gaining Ground

As we mentioned up front, managers with global equity benchmarks have, in aggregate, seen the worst returns in 10 years. As can see in *Displays 13–16* below, this slump has been driven entirely by growth managers, whose returns collapsed as the growth rally ended in 2020/2021. The underperformance started then, but took another sharp leg downward more recently, even as growth has recovered in recent months. As could have been expected, value managers had pretty much the opposite experience and are now outperforming over a three-year horizon. Blended style managers’ excess returns are hovering around zero. We see similar trends in IA: as is often the case, a manager’s ability to generate IA is also impaired when the strategy’s dominant style is underperforming, implying that the alpha/beta divide is really a spectrum rather than a hard line.

Interestingly, picking the right stocks wasn’t a problem in aggregate—*Display 14* below shows that alpha from stock picking (one component of total IA)— was positive for all three manager cohorts, although it did decline fairly sharply for growth managers recently. But everyone seems to have struggled with timing recently—and it’s been a particular problem for growth managers over the past three years. With the market rotating in and out of growth more frequently after a long positive trend, it became harder to adjust exposures correctly. The recent very narrow market leadership by a small subset of growth names has made it increasingly hard to be in the “right” kind of growth in order to keep up with benchmarks.

DISPLAY 13: GLOBAL MANAGERS – THREE-YEAR ROLLING EXCESS RETURN, % ANNUALIZED

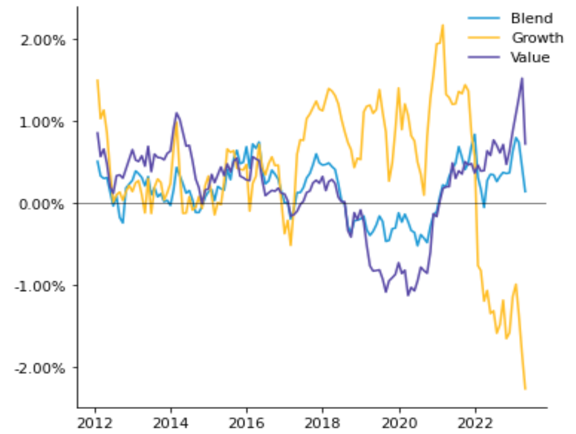


Past performance does not guarantee future results.

As of April 30, 2023

Source: eVestment, FactSet, Morningstar, MSCI, S&P and AB

DISPLAY 14: GLOBAL MANAGERS – THREE-YEAR ROLLING TOTAL IA, % ANNUALIZED

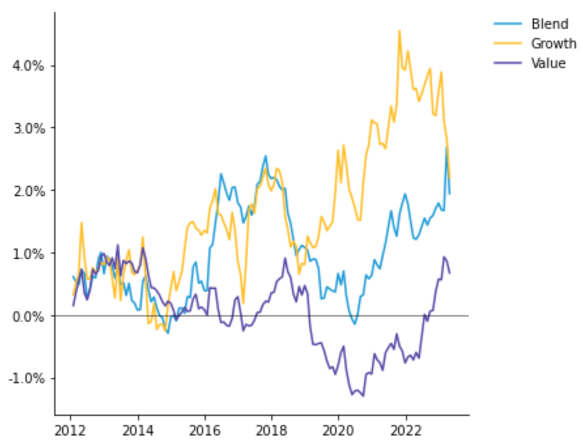


Past performance does not guarantee future results.

As of April 30, 2023

Source: eVestment, FactSet, Morningstar, MSCI, S&P and AB

DISPLAY 15: GLOBAL MANAGERS - STOCK PICKING IA, % ANNUALIZED

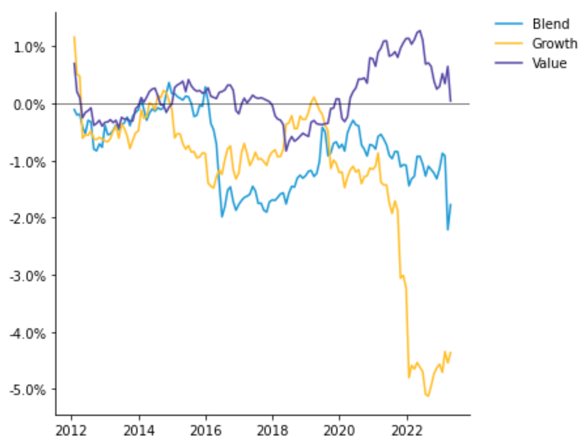


Past performance does not guarantee future results.

As of April 30, 2023

Source: eVestment, FactSet, Morningstar, MSCI, S&P and AB

DISPLAY 16:GLOBAL MANAGERS - TIMING IA, % ANNUALIZED



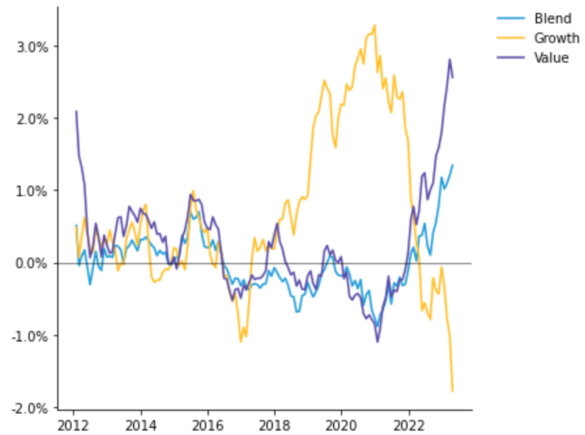
Past performance does not guarantee future results.

As of April 30, 2023

Source: eVestment, FactSet, Morningstar, MSCI, S&P and AB

The picture is similar for US managers, although the bifurcation of excess returns between value and growth has been even more extreme, with a close to 5% annualized performance spread between the former and the latter on a three-year trailing basis. In terms of the underlying skill/IA, stock picking has been detracting value in the US growth-manager universe (having been declining dramatically since 2021), while value managers have been generating positive returns through security selection. Blended-style managers have also been effective at picking stocks.

DISPLAY 17: US MANAGERS – THREE-YEAR ROLLING EXCESS RETURN, % ANNUALIZED

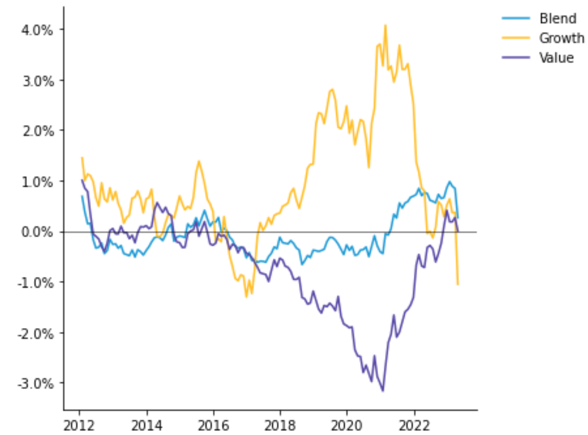


Past performance does not guarantee future results.

As of April 30, 2023

Source: eVestment, FactSet, Morningstar, MSCI, S&P and AB

DISPLAY 18: US MANAGERS – THREE-YEAR ROLLING TOTAL IA, % ANNUALIZED

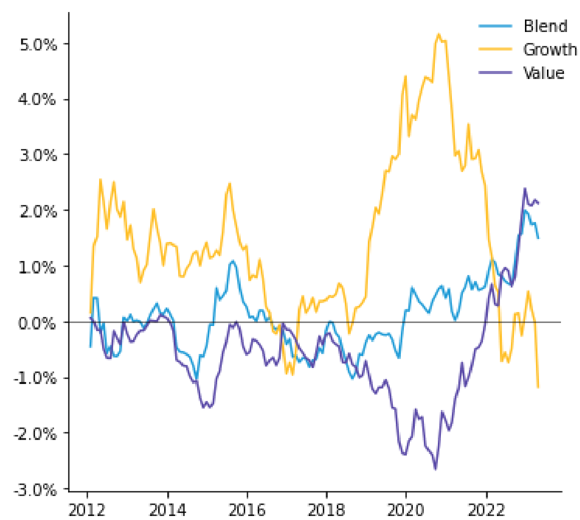


Past performance does not guarantee future results.

As of April 30, 2023

Source: eVestment, FactSet, Morningstar, MSCI, S&P and AB

DISPLAY 19: US STOCK PICKING ALPHA, % ANNUALIZED

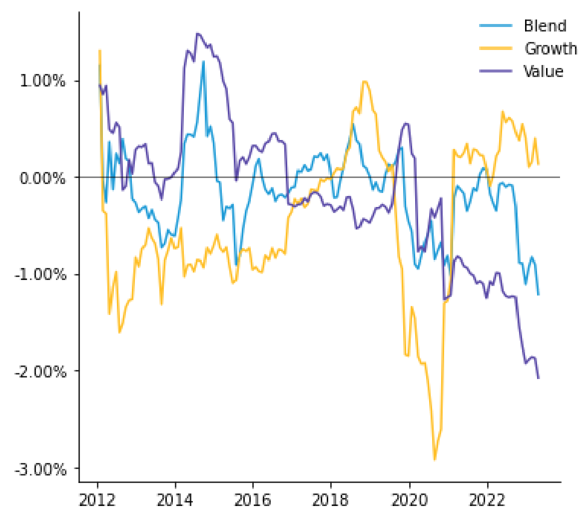


Past performance does not guarantee future results.

As of April 30, 2023

Source: eVestment, FactSet, Morningstar, MSCI, S&P and AB

DISPLAY 20: US TIMING ALPHA, % ANNUALIZED



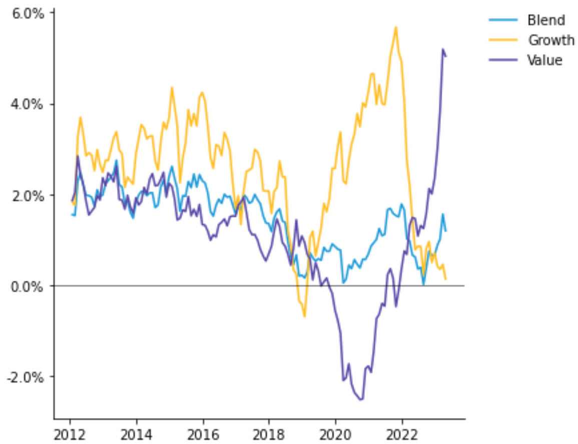
Past performance does not guarantee future results.

As of April 30, 2023

Source: eVestment, FactSet, Morningstar, MSCI, S&P and AB

Finally, we note that the positive excess returns and total IA in EM—in aggregate the standout region with positive alpha over the past three years—is also driven largely by value managers. They've been beating benchmarks through a combination of strongly positive security-selection IA *(Display 23)* and modest but positive timing IA. Growth managers here have also lagged value peers, but have still managed to just about keep up with benchmarks and generate marginally positive IA, thanks to a positive contribution from tactical factor timing.

DISPLAY 21: EM THREE-YEAR ROLLING EXCESS RETURN, % ANNUALIZED

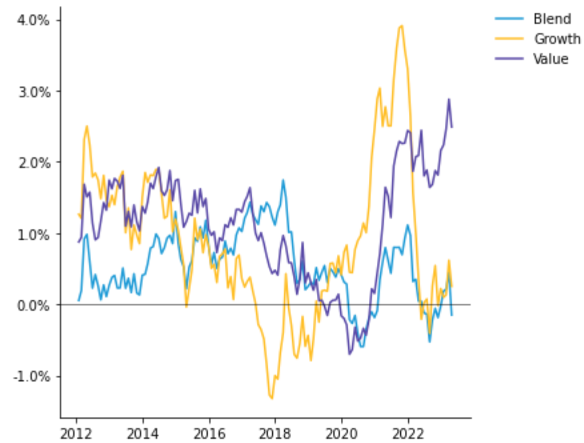


Past performance does not guarantee future results.

As of April 30, 2023

Source: eVestment, FactSet, Morningstar, MSCI, S&P and AB

DISPLAY 22: EM THREE-YEAR ROLLING TOTAL IA, % ANNUALIZED

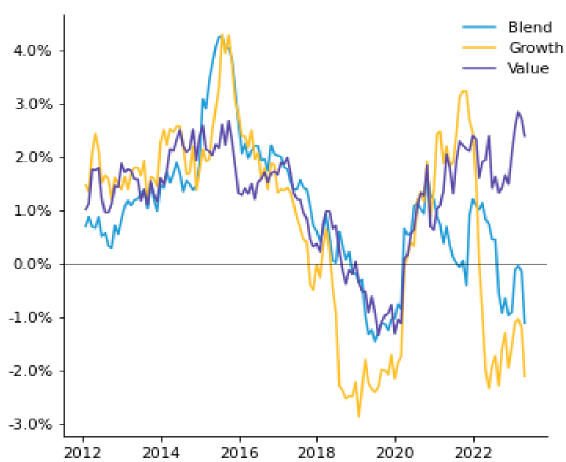


Past performance does not guarantee future results.

As of April 30, 2023

Source: eVestment, FactSet, Morningstar, MSCI, S&P and AB

DISPLAY 23: EM STOCKPICKING ALPHA, % ANNUALIZED

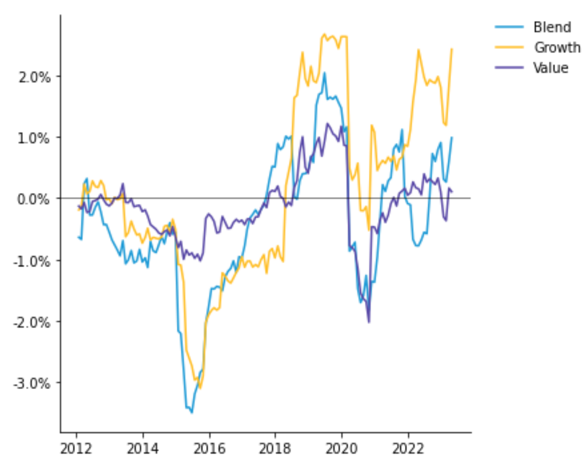


Past performance does not guarantee future results.

As of April 30, 2023

Source: eVestment, FactSet, Morningstar, MSCI, S&P and AB

DISPLAY 24: EM TIMING ALPHA, % ANNUALIZED



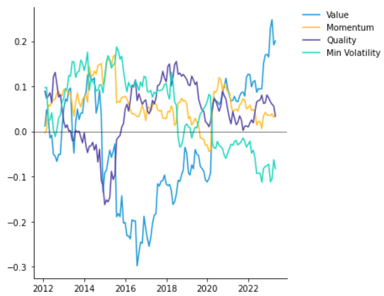
Past performance does not guarantee future results.

As of April 30, 2023

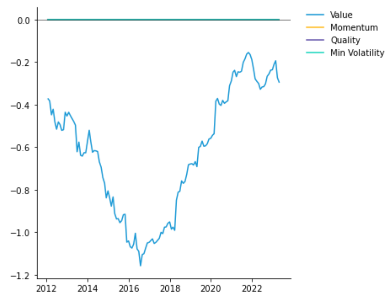
Source: eVestment, FactSet, Morningstar, MSCI, S&P and AB

Growth managers have consistently been reducing their exposure to growth through time (Display 26); this will have helped their returns and has also manifested itself as positive timing skill, given that they reduced exposure to the underperforming style consistently over a succession of tactical horizons. Conversely, value managers have increased their value exposure dramatically through time, also helping excess-return generation. Blended or core managers have also gone from a pro-growth to pro-value positioning, helping returns. In the US and globally, growth managers kept their growth exposures more consistent, a faithfulness to their stated style that contributed to poor returns as growth struggled. Globally benchmarked managers remained, overall, the least exposed to value (or the most “growthy”). This contributed to the poor performance across the board which, as we commented earlier, has been the worst in a decade.

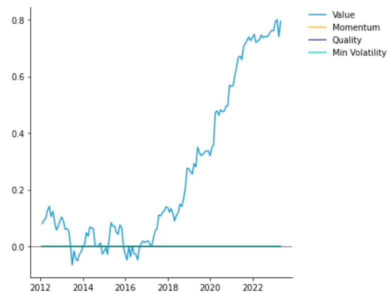
DISPLAY 25: EM BLEND MANAGERS THREE-YEAR ROLLING FACTOR EXPOSURES



DISPLAY 26: EM GROWTH MANAGERS THREE-YEAR ROLLING FACTOR EXPOSURES



DISPLAY 27: EM VALUE MANAGERS THREE-YEAR ROLLING FACTOR EXPOSURES

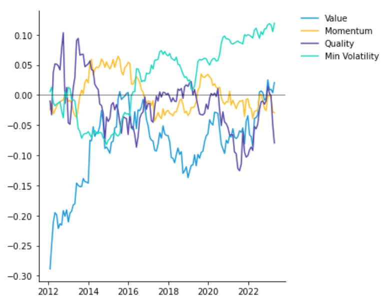


Current analysis does not guarantee future results.

As of April 30, 2023

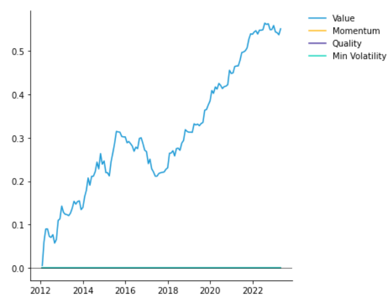
Source: eVestment, FactSet, Morningstar, MSCI, S&P and AB

DISPLAY 28: GLOBAL BLEND MANAGERS THREE-YEAR ROLLING FACTOR EXPOSURES



DISPLAY 29: GLOBAL GROWTH MANAGERS THREE-YEAR ROLLING FACTOR EXPOSURES

DISPLAY 30: GLOBAL VALUE MANAGERS THREE-YEAR ROLLING FACTOR EXPOSURES

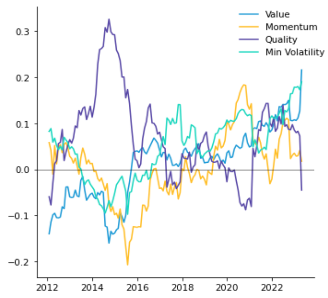


Current analysis does not guarantee future results.

As of April 30, 2023

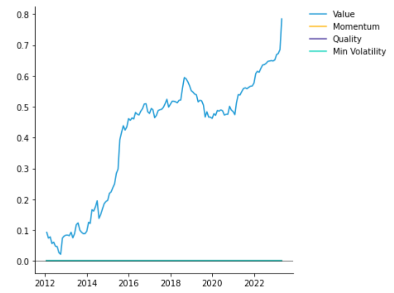
Source: eVestment, FactSet, Morningstar, MSCI, S&P and AB

DISPLAY 31: US BLEND MANAGERS THREE-YEAR ROLLING FACTOR EXPOSURES



DISPLAY 32: US GROWTH MANAGERS THREE-YEAR ROLLING FACTOR EXPOSURES

DISPLAY 33: US VALUE MANAGERS THREE-YEAR ROLLING FACTOR EXPOSURES



Current analysis does not guarantee future results.

As of April 30, 2023

Source: eVestment, FactSet, Morningstar, MSCI, S&P and AB

Systematic Approaches Struggling Again

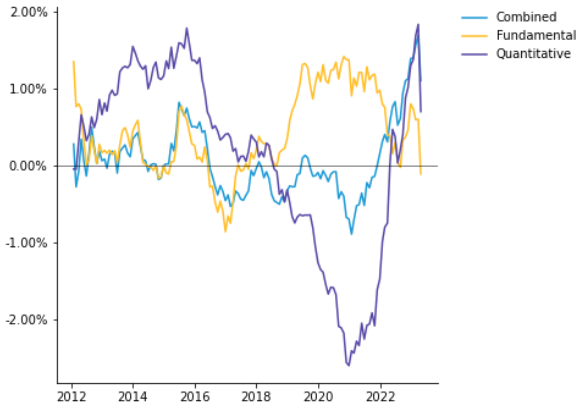
Among the many implications of narrow market leadership and renewed dominance of mega-cap growth names is that traditional long only, multi-factor quantitative approaches are struggling again; this underperformance is relatively recent but is starting to affect three-year numbers.

Display 34 shows that a sharp recovery since 2021, which had ended a five-year period of negative returns for long only systematic strategies in the US, has seemingly started to reverse again. Total IA has dropped sharply into negative territory (*Display 36*). The decline stems from both deteriorating security-selection alpha (still positive over three years but negative over a shorter window) and another sharp decline in timing alpha, which has been falling constantly since around 2019 and in negative territory since 2020. It makes sense that traditional multi-factor systematic strategies struggled, particularly with timing, in a market dominated by one extremely concentrated style. These approaches, in many cases by design, maintain a diversified set of tightly controlled factor exposures, so they're forced to maintain exposures to underperforming factors and are unable to have "enough" exposure to the winning style(s).

In addition, systematic approaches often have a large valuation component in their models, attempting to take advantage of mean reversion—historically one of the most reliable quantitative tools. As is typical, quantitative strategies in the US have had considerably larger value exposure than both fundamental strategies and those combining fundamental and quantitative inputs (*Display 38*). This orientation, overall, should have helped them over the past three years, especially since 2021, because value has done well. However, it has been hurting more recently, with market leadership reversing yet again toward growth. The systematic approaches' positive exposure to quality and momentum, which also sets it apart from fundamental peers, has also been hurting performance recently (see *Display*s 10 – 12 above).

The issue for systematic strategies goes beyond tight controls on risks and exposures that often "force" them to allocate to factors that are persistently underperforming. It also encompasses the very diversified nature of these processes, which means they suffer particularly badly at times—like now—when only a handful of stocks outperform the index. On this occasion, it appears that "too much diversification" is a bad thing for these processes that, on average, tend to have many more smaller positions than fundamental peers. If narrow leadership remains a feature of the market environment, it will continue to present a big structural problem for quantitative managers, unless there are fundamental changes in how alpha-generating processes and models are structured.

DISPLAY 34: US EQUITY MANAGERS THREE-YEAR TRAILING EXCESS RETURN, % ANNUALIZED

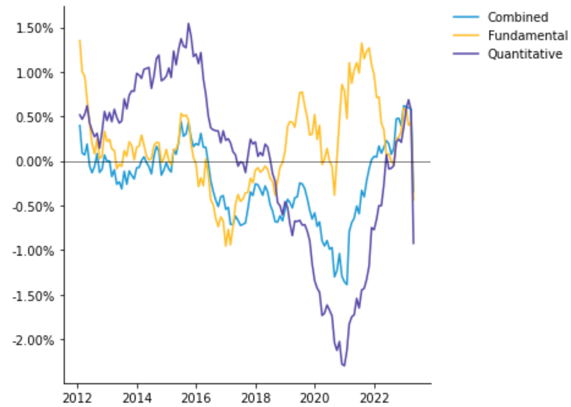


Past performance does not guarantee future results.

As of April 30, 2023

Source: eVestment, FactSet, Morningstar, MSCI, S&P and AB

DISPLAY 35: US EQUITY MANAGERS THREE-YEAR TRAILING TOTAL IA, % ANNUALIZED

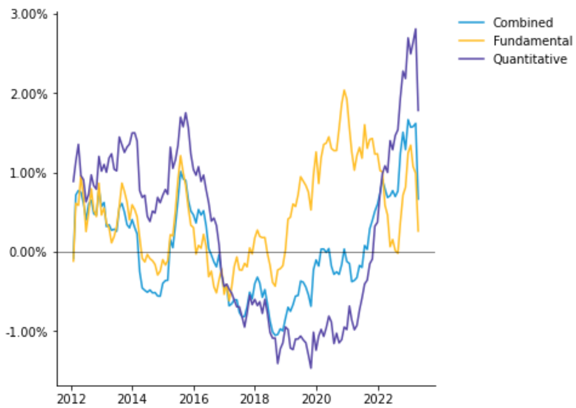


Past performance does not guarantee future results.

As of April 30, 2023

Source: eVestment, FactSet, Morningstar, MSCI, S&P and AB

DISPLAY 36: US EQUITY MANAGERS STOCK PICKING ALPHA, % ANNUALIZED

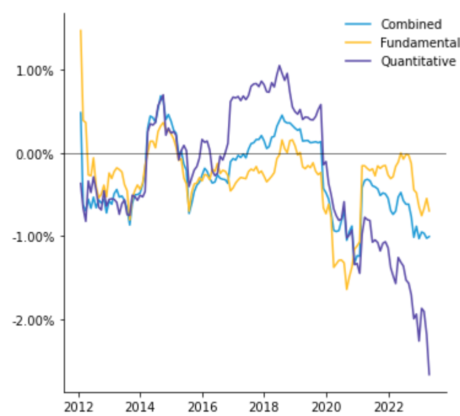


Past performance does not guarantee future results.

As of April 30, 2023

Source: eVestment, FactSet, Morningstar, MSCI, S&P and AB

DISPLAY 37: US EQUITY MANAGERS TIMING ALPHA, % ANNUALIZED

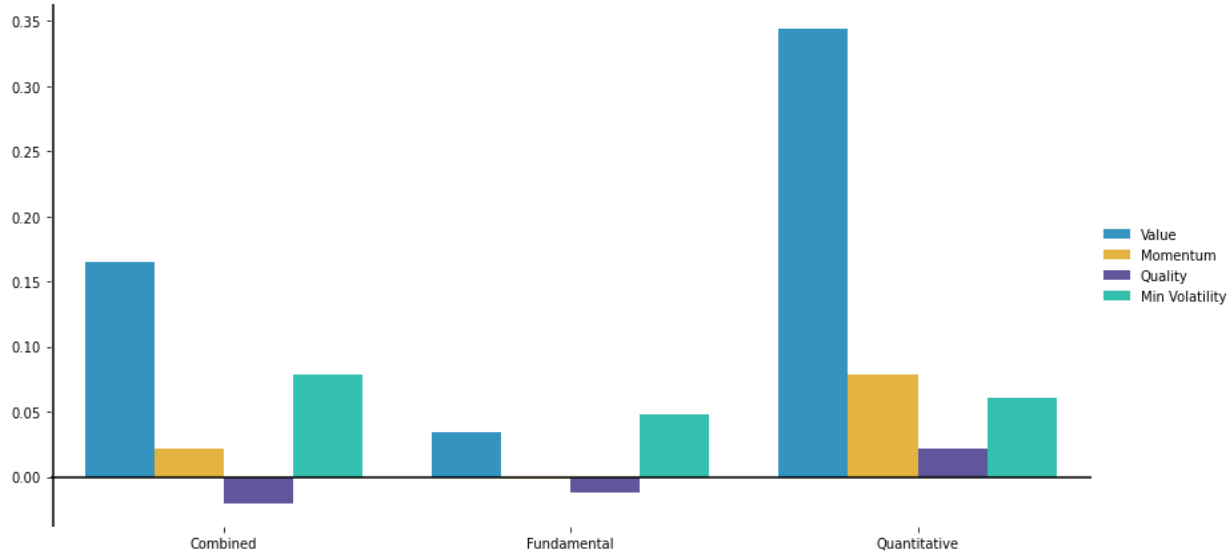


Past performance does not guarantee future results.

As of April 30, 2023

Source: eVestment, FactSet, Morningstar, MSCI, S&P and AB

DISPLAY 38: US EQUITY MANAGERS' THREE-YEAR FACTOR EXPOSURES BY STRATEGY



Current analysis does not guarantee future results.

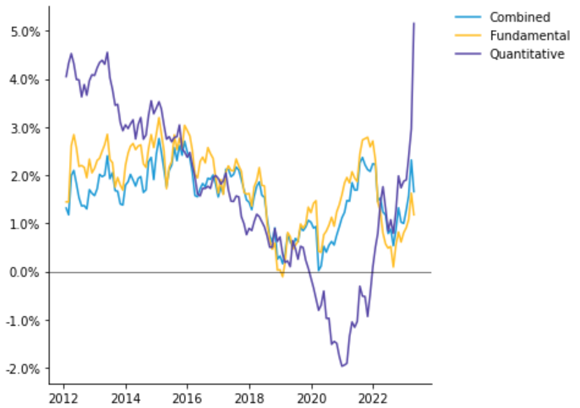
January 30, 2012, through April 30, 2023

Source: eVestment, FactSet, Morningstar, MSCI, S&P and AB

All that said, EM quants are doing great! There has been a large upward spike in the excess returns of systematic strategies in EM (*Display 39*), who have staged a remarkable recovery and are generating their best performance in at least a decade. Quants are also leading in terms total IA, driven by very strong stock-picking alpha and favorable factor exposures, more than compensating for negative timing alpha.

Comparing factor exposures of this group with fundamental and "quantamental" peers (*Display 37*), quantitative strategies again have a much greater value exposure. In this case, that exposure has helped them a lot—value has been faring well in EM and outperforming growth consistently since 2020. While value has been performing roughly in line with growth very recently, there hasn't been a reversal in leadership toward growth as we have been observing in DM. Market leadership has not been as narrow in EM as in DM, which not only helped excess returns through static exposure to the "right" factor in value but also created a favorable environment for stock picking (*Display 41*), more than for their fundamental and "hybrid" counterparts.

DISPLAY 39: EM EQUITY MANAGERS THREE-YEAR TRAILING EXCESS RETURN, % ANNUALIZED

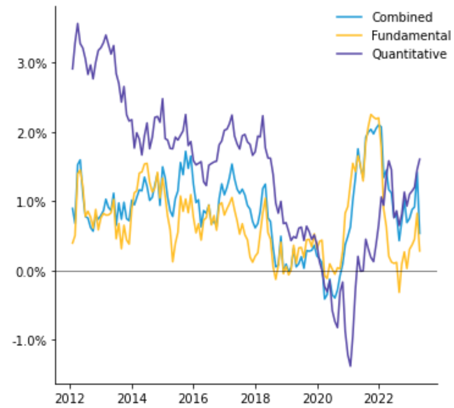


Past performance does not guarantee future results.

As of April 30, 2023

Source: eVestment, FactSet, Morningstar, MSCI, S&P and AB

DISPLAY 40: EM EQUITY MANAGERS THREE-YEAR TRAILING TOTAL IA, % ANNUALIZED

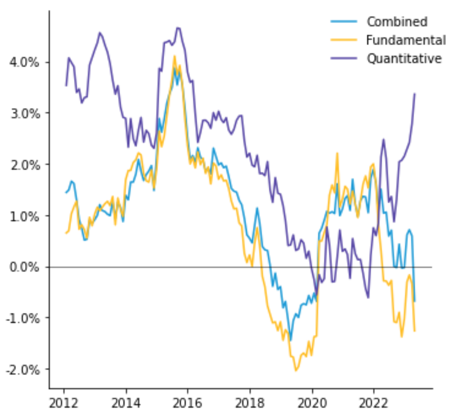


Past performance does not guarantee future results.

As of April 30, 2023

Source: eVestment, FactSet, Morningstar, MSCI, S&P and AB

DISPLAY 41: EM EQUITY MANAGERS STOCK PICKING ALPHA, % ANNUALIZED

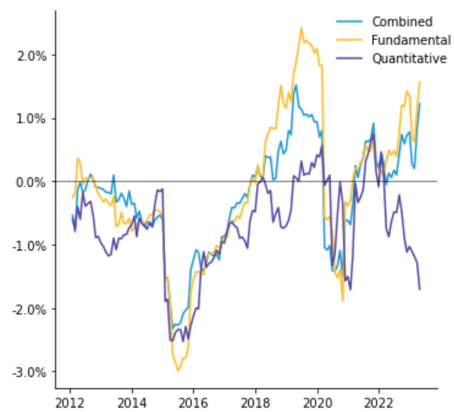


Past performance does not guarantee future results.

As of April 30, 2023

Source: eVestment, FactSet, Morningstar, MSCI, S&P and AB

DISPLAY 42: EM EQUITY MANAGERS TIMING ALPHA, % ANNUALIZED

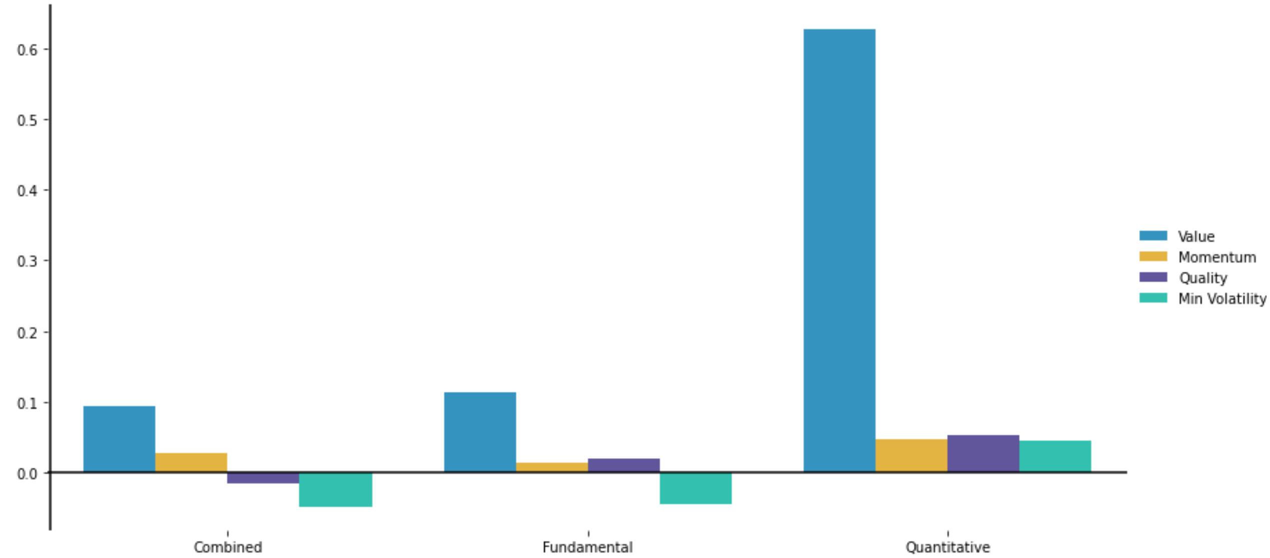


Past performance does not guarantee future results.

As of April 30, 2023

Source: eVestment, FactSet, Morningstar, MSCI, S&P and AB

DISPLAY 43: EM EQUITY MANAGERS THREE-YEAR FACTOR EXPOSURES BY STRATEGY



Current analysis does not guarantee future results.

January 30, 2012, through April 30, 2023

Source: eVestment, FactSet, Morningstar, MSCI, S&P and AB

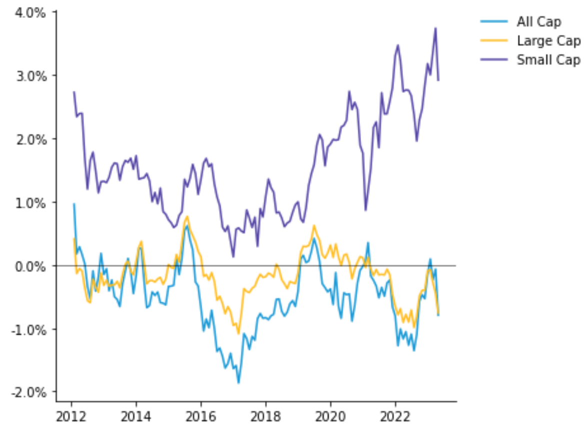
Will the environment remain as favorable for quants in EM? That remains to be seen, but for now it makes sense to deploy any capital one wishes to allocate to systematic multifactor approaches in the EM region rather than in DM—at least over a tactical horizon.

The Widening of the Small Cap Alpha Premium in the US

Another striking alpha trend we have been seeing recently is the huge widening of the small-cap premium in the US. As we have discussed previously in our Alphalytics research, small-cap equities have, over the long term, been one of the richest opportunity sets for alpha generation, and small-cap equity managers have delivered some of the highest IA in the cross-asset context over the long term.

Displays 44–47 show this positive spread in excess returns, total IA and security selection IA over time, which has widened considerably over the past couple of years. US small-cap managers are currently delivering their best three-year annualized excess returns in over a decade. This strong showing is being helped by their growth exposure: in *Display 48*, we show three-year exposures of US small-cap managers to small-cap (Russell 2000) factors, and the small-cap growth factor has done very well so far in 2023. Over the most recent three-year period, by contrast, value has been the best-performing factor, so the growth bias will have hurt returns. However, this will have been offset by the positive exposures to minimum volatility and quality, which have performed well.

DISPLAY 44: US EQUITY MANAGERS THREE-YEAR ROLLING EXCESS RETURN, % ANNUALIZED

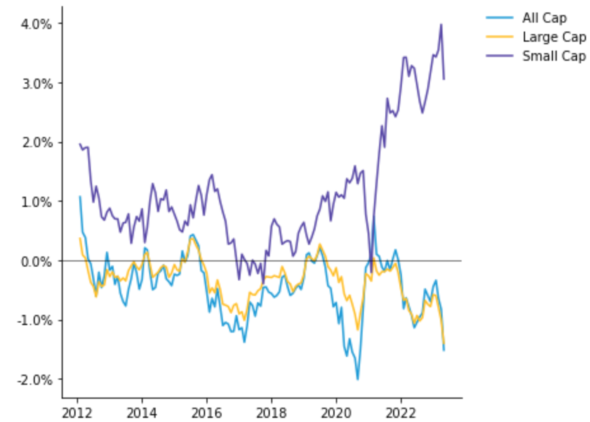


Past performance does not guarantee future results.

As of April 30, 2023

Source: eVestment, FactSet, Morningstar, MSCI, S&P and AB

DISPLAY 45: US EQUITY MANAGERS THREE-YEAR ROLLING TOTAL IA, % ANNUALIZED

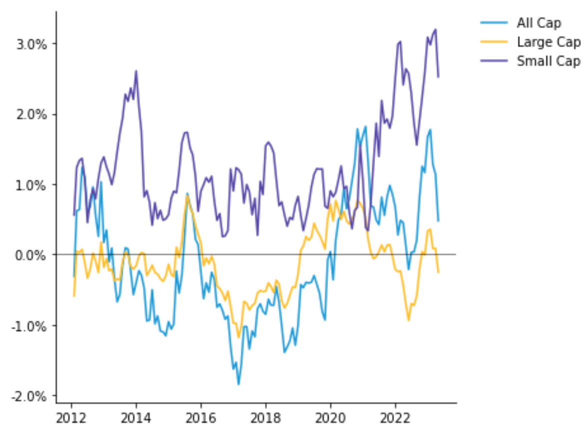


Past performance does not guarantee future results.

As of April 30, 2023

Source: eVestment, FactSet, Morningstar, MSCI, S&P and AB

DISPLAY 46: US EQUITY MANAGERS THREE-YEAR STOCK PICKING ALPHA, % ANNUALIZED

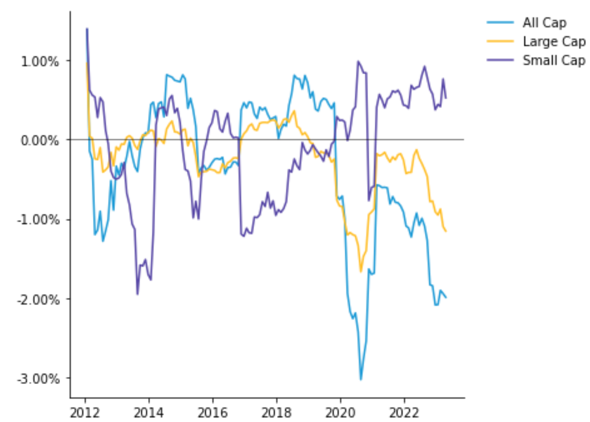


Past performance does not guarantee future results.

As of April 30, 2023

Source: eVestment, FactSet, Morningstar, MSCI, S&P and AB

DISPLAY 47: US EQUITY MANAGERS THREE-YEAR TIMING ALPHA, % ANNUALIZED

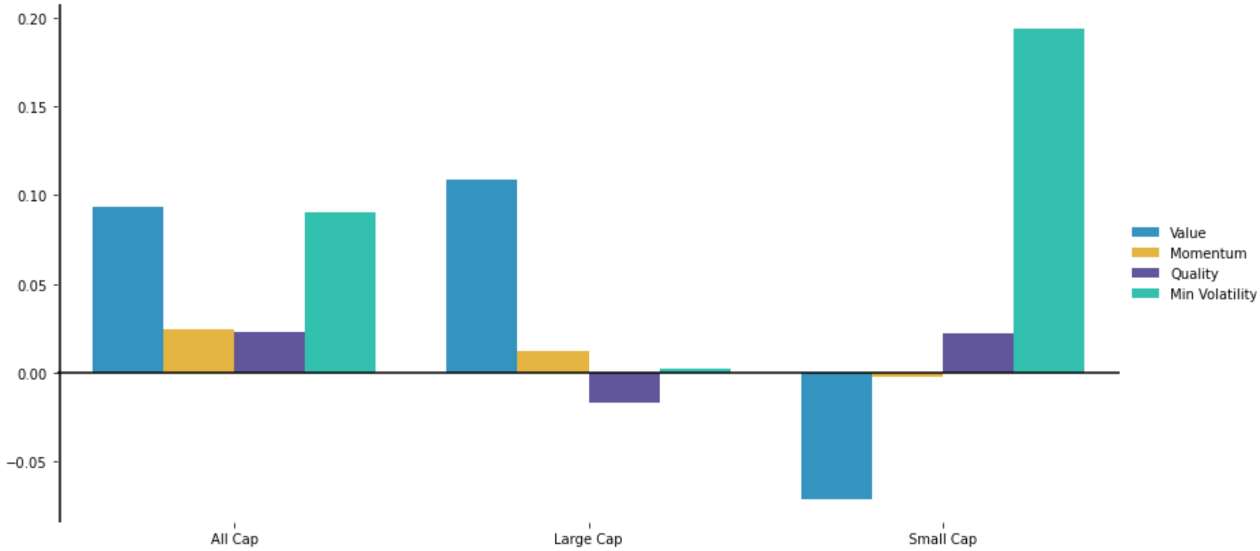


Past performance does not guarantee future results.

As of April 30, 2023

Source: eVestment, FactSet, Morningstar, MSCI, S&P and AB

DISPLAY 48: US EQUITY MANAGERS THREE-YEAR FACTOR EXPOSURES BY MARKET-CAP FOCUS



Current analysis does not guarantee future results.

January 30, 2012, through April 30, 2023

Source: eVestment, FactSet, Morningstar, MSCI, S&P and AB

Overall, therefore, static factor exposures have had a roughly neutral contribution to excess returns. That makes it all the more impressive that this strong benchmark-relative performance has been entirely driven by idiosyncratic alpha—in other words, skill. IA has been helped by both stock picking (*Display 46*) and timing, a combination rarely seen, because uncovering purely idiosyncratic security-selection ideas often conflicts with the more top-down considerations of timing styles. In this case, both sources of skill are present. This result reaffirms our view that small-cap equities are a lucrative space for generating alpha over the long term. More tactically, now is also a good time to enter this space, given the persistency of three-year IA and its pronounced ability to predict excess returns over a three- to five-year horizon.

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