

Equity Factor Insights

QUARTERLY REPORT | JANUARY 2025

Momentum shines in Q4, in line with 2024 factor performance

In Q4, Momentum outperforms; (Small) Size lags

Q4 factor performance reverted to H1 2024 trends in the context of a rise in inflation expectations and yields in key markets.

Over 2024, Momentum holds sway

Momentum outperformed broadly in 2024. Besides Momentum, US Quality stood out, while other US factors lagged badly, consistent with the US's tech-driven equity rally. Momentum and Yield led Japan factor performance, while Japan Size notably lagged. Emerging Quality and Low Vol also shone, while Emerging Size steeply underperformed. In Europe and UK, Momentum outpaced other factors.

Financials greatly influence Q4 factor performance

In many regions, an overweight to Financials and other cyclicals helped Q4 factor performance, amid a narrower equity rally. Conversely, Health Care and Basic Materials exposures hurt relative returns.

Many factors derated in Q4

Despite many factors derating in Q4, there was a general expansion in P/Es over 2024. Most factors in Japan and Asia Pacific ex Japan derated over the year.

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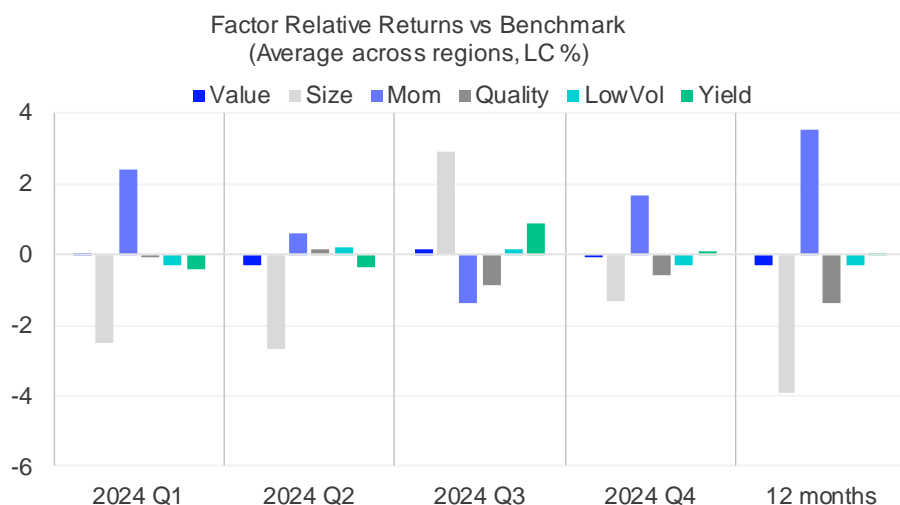
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Regional Factor Performance Highlights



Select Regional Relative Returns, 3M (%)

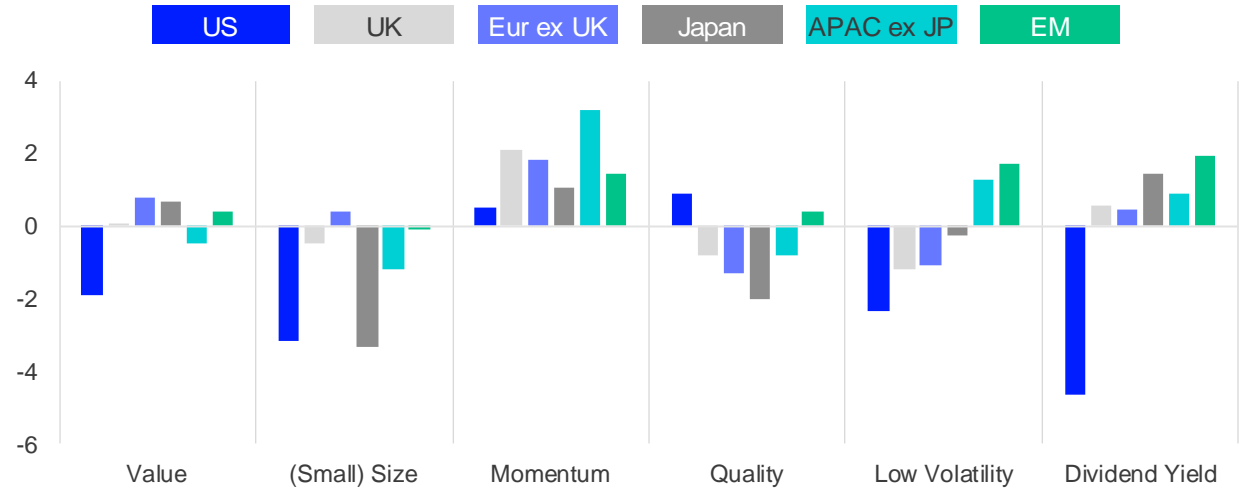
+0.9% US Quality	-4.6% US Yield
+1.8% Europe ex UK Momentum	-1.3% Europe ex UK Quality
+2.1% UK Momentum	-1.2% UK Low Vol
+1.4% Japan Yield	-3.3% Japan Size

Source: FTSE Russell and LSEG. All data as of December 31, 2024. Please see Appendix for important legal disclosures and details on rules-based factor indicator calculations and construction methodology.

Global View – Factor and Benchmark Performance Highlights, 3M

In Q4 2024, amid a narrowing global equity rally, Momentum outperformed the benchmark across regions and (Small) Size underperformed in 5 of 6 regions, notably in the US and Japan. This was a reversal from Q3's performance but more consistent with the 12M trend, which saw larger equities shine in a momentum-driven market. Performance was mixed for other factors. Value and Yield significantly underperformed in the US where Quality outperformed. Low Vol outperformed the Emerging and Asia Pacific benchmarks but lagged elsewhere.

Regional Relative Factor returns vs benchmark — 3M (TR, LC%)



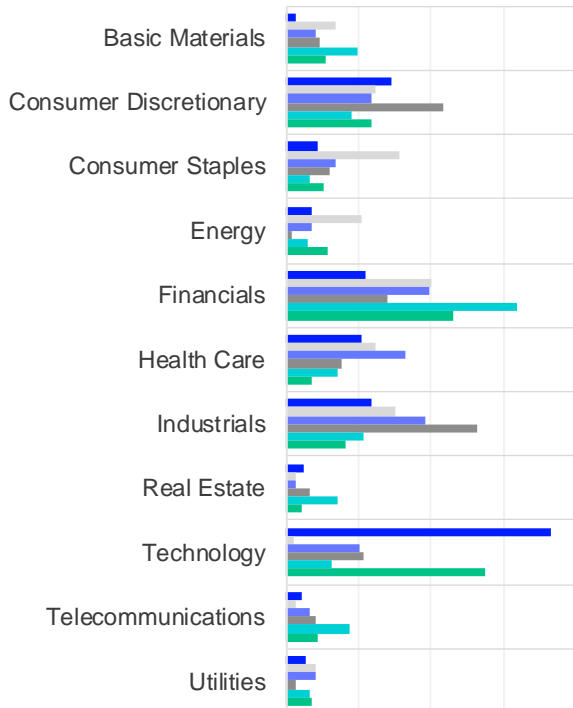
Regional Equity Market Returns – 3M (TR, LC %) – Japan equities on top

Japan equities outperformed peers in Q4. They were followed by US and UK equities which posted gains, while Europe, Asia Pacific and the Emerging index posted losses in local currency terms. Q4 performance was driven by a narrow set of industries in each region, with a few cyclicals contributing the bulk of index returns and many industries detracting.



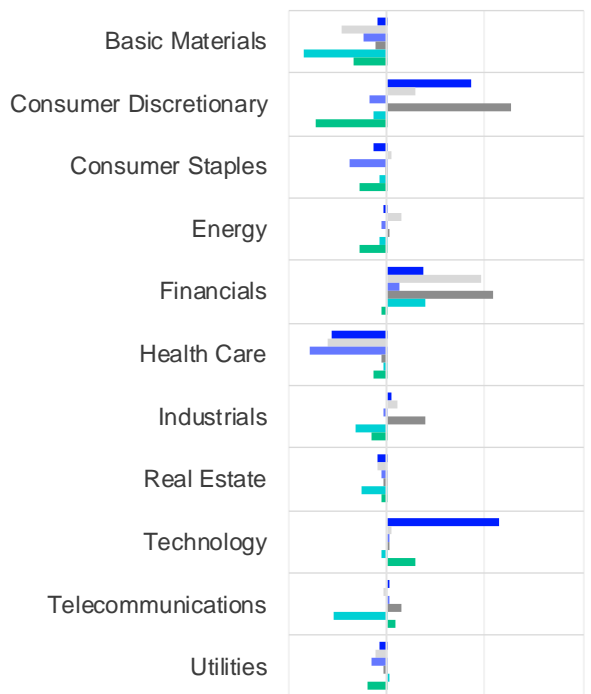
Benchmark Industry Weights, 3M average (%)

0 10 20 30 40



3M – Contributions to Total Benchmark Returns (%)

-2 0 2 4

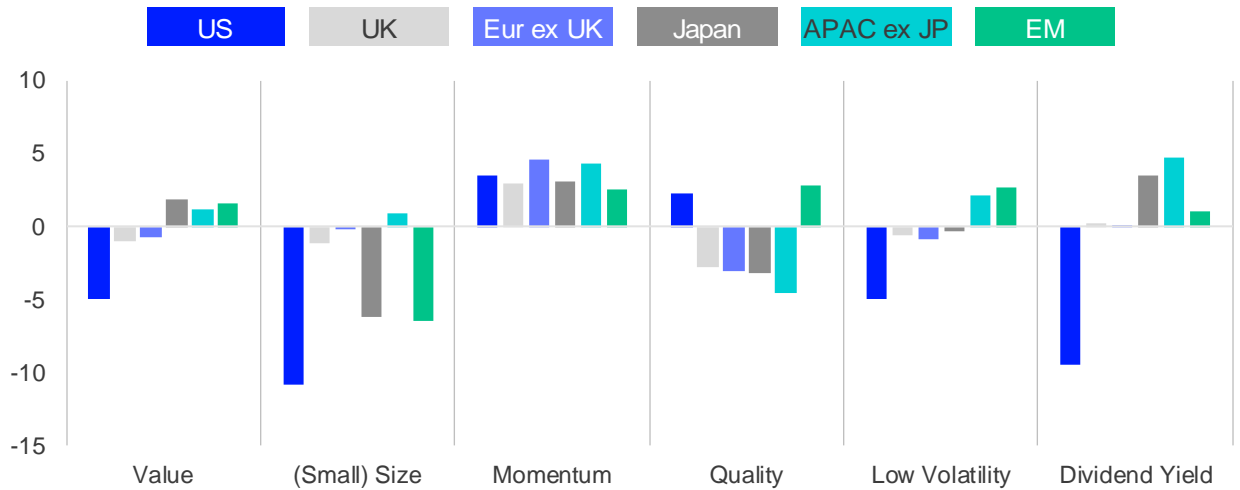


Source: FTSE Russell and LSEG. All data as of December 31, 2024. Past performance is no guarantee of future results.

Global View – Factor and Benchmark Performance Highlights, 12M

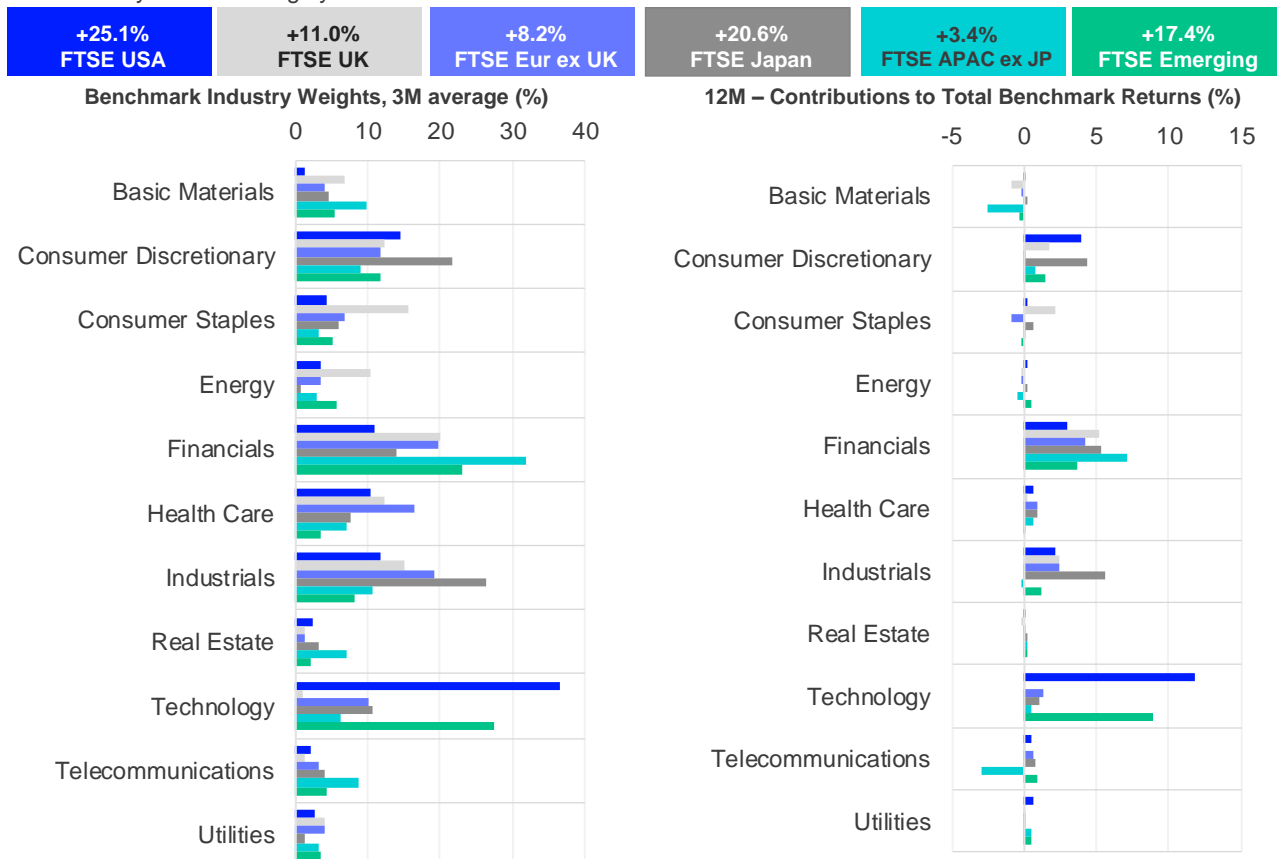
Over 12M, Momentum outperformed in all regions, despite the factor lagging in Q3. Conversely, Size underperformed in 5 of 6 regions, significantly lagging the US, Japan and Emerging indices. Quality led the US and Emerging benchmarks while lagging elsewhere. Value, Yield and Low Vol posted mixed results, notably underperforming in the US where large, expensive, and low dividend-paying stocks drove performance. Value and Yield outperformed the Japan, Asia Pacific and Emerging indices. Low Vol outperformed in Asia Pacific and Emerging, while lagging elsewhere.

Regional Relative Factor returns vs benchmark — 12M (TR, LC%)



Regional Equity Market Returns – 12M (TR, LC %) – the US leads

US equities led performance over 12M, followed by Japan and the Emerging index in local currency terms. The UK, Europe and Asia Pacific lagged. While most industries contributed, cyclicals such as Financials, Industrials, Discretionary and Tech largely drove benchmark returns.



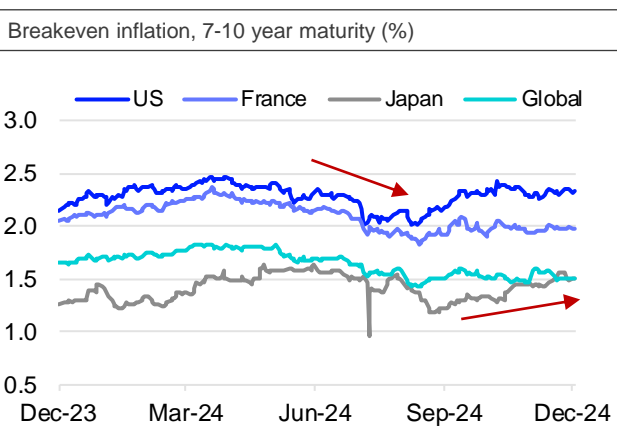
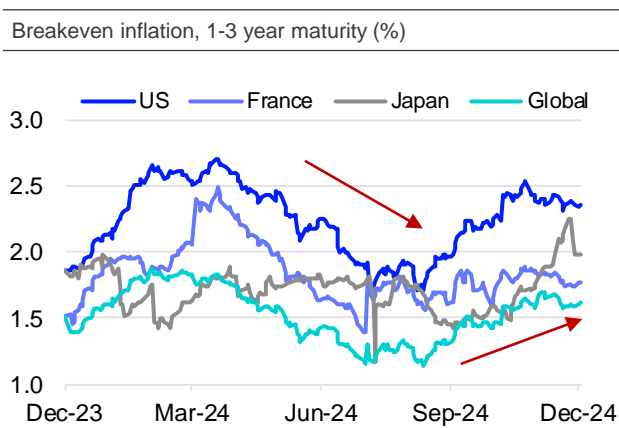
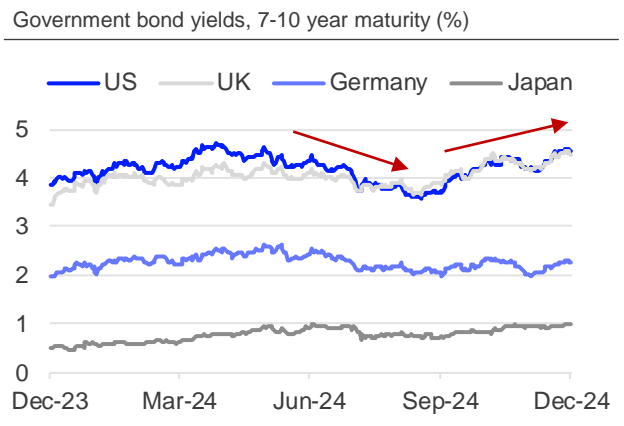
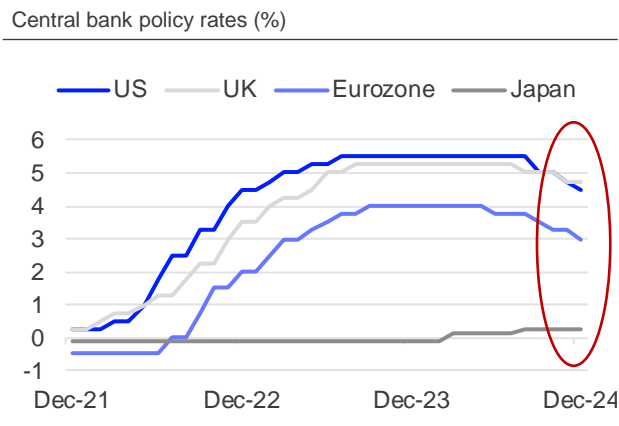
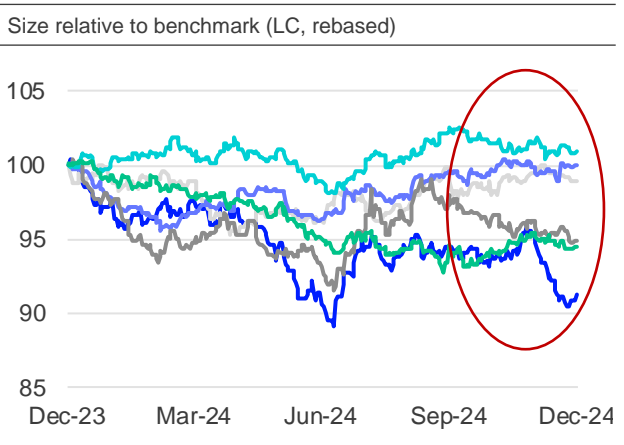
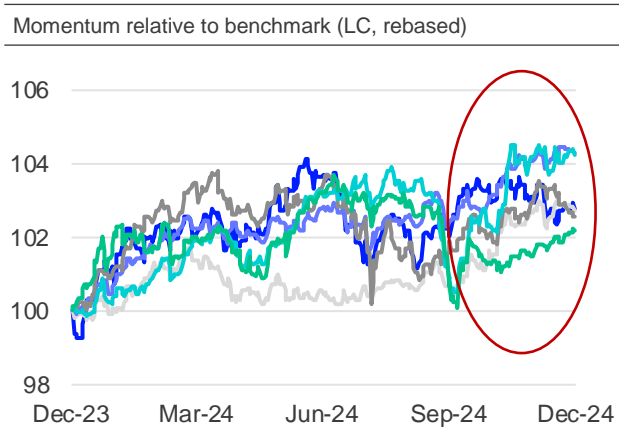
Source: FTSE Russell and LSEG. All data as of December 31, 2024. Past performance is no guarantee of future results.

Global View – Factor rotation

After moderating sharply in Q3, Momentum rebounded broadly in Q4 to outperform. Similarly, (Small) Size underperformed the benchmark in Q4 in 5 of 6 regions after outperforming the previous quarter. This sharp reversal in Q4 performance came within the context of a marked change in inflation expectations and yield moves.

In Q4, the Fed, ECB and BoE continued to ease their key policy rates (while the BoJ held its policy rate steady) but they became more cautious about the future trajectory of interest rate cuts. Realized inflation ticked up in November in several markets with prices sticky in certain pockets of the economy. Further, the anticipated policies of the incoming US administration, such as new trade tariffs and tax cuts, were expected to be inflationary, with implications beyond the US. As a result, both inflation expectations and yields rose across key developed markets.

With this return to the narrative of higher-for-longer interest rates, factor performance in Q4 more or less reverted to the trends seen during H1 2024. The equity rally was narrower, with Tech and other cyclicals leading industry performance.

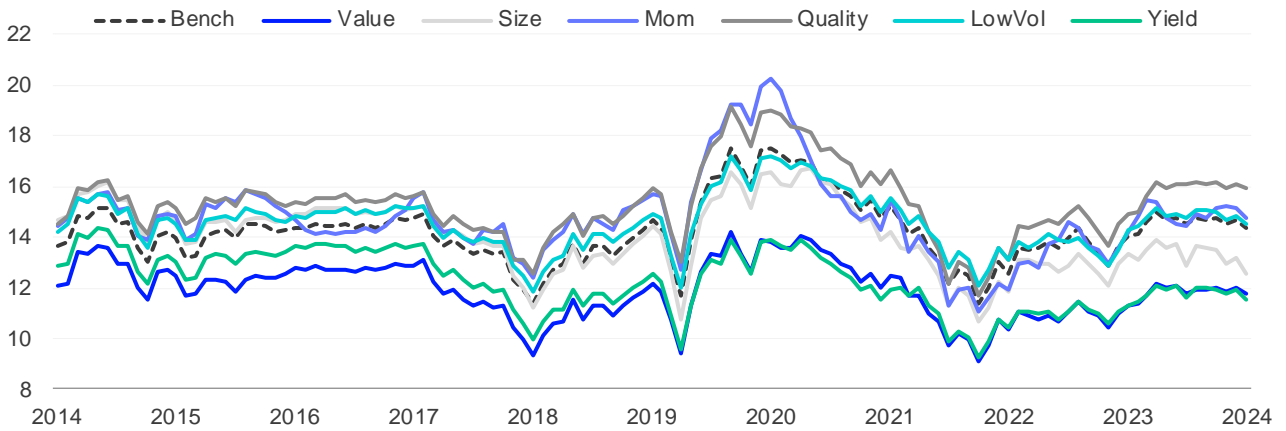


Source: FTSE Russell and LSEG. All data as of December 31, 2024. Past performance is no guarantee of future results.

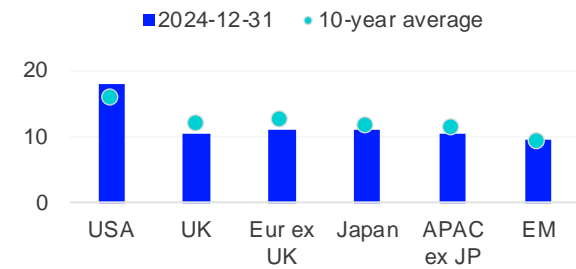
Global View – Factor Valuations

Since the end of 2022, average factor forward P/Es have broadly rerated. Most factors sustained higher valuations over 2024, except for Size which traded lower at year-end than one year ago. Over Q4, factor valuations moderated broadly. At end-2024, all US and Emerging factors traded above their 10-year average forward P/Es, as did Japan Quality.

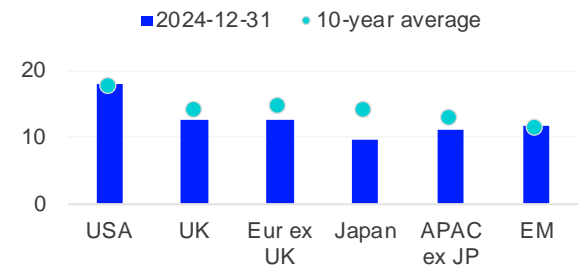
12-month forward factor P/E ratios, average of six regions



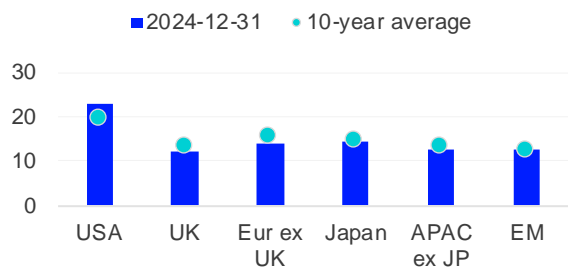
Value - 12M forward P/E



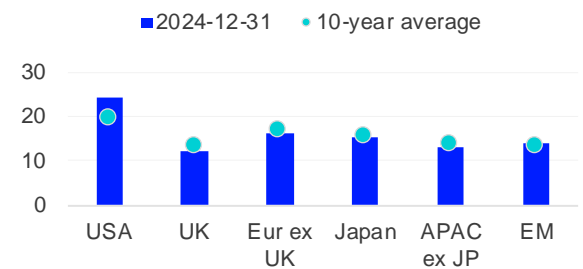
Size - 12M forward P/E



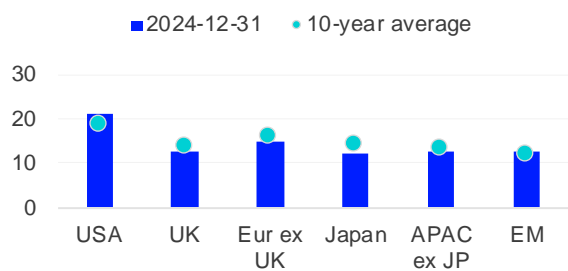
Momentum - 12M forward P/E



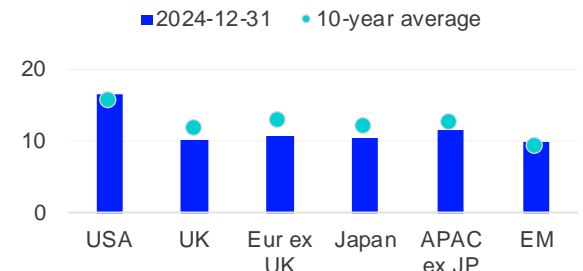
Quality - 12M forward PE



Low Volatility - 12M forward PE



Yield - 12M forward PE



Source: FTSE Russell and LSEG. All data as of December 31, 2024. Past performance is no guarantee of future results.

US Equity Factor Insights

FOURTH QUARTER | 2024

Key Observations

- In Q4, Quality and Momentum outperformed while other factors lagged, in a reversal from Q3. Both Momentum and Quality benefited from their overweight to Tech, while other factors were hurt by their Tech underweight.
- Yield and Size lagged the most over the quarter with large negative allocation effects from Tech and selection effects within Discretionary.
- Over 2024, Momentum and Quality outperformed the benchmark, while other factors lagged. This was consistent with the extent of Tech's contribution to the US index's returns, even as other cyclicals pitched in. Yield and Size lagged the most.
- Despite factor forward P/Es moderating a bit in Q4, they rerated notably in 2024. At year-end, absolute 12M forward P/Es were above their 10-year average for all factors.
- In relative terms, Quality traded above its long-term average, while Size traded at the largest discount.

Factor returns relative to benchmark (rebased)



Source: FTSE Russell and LSEG. All data as of December 31, 2024. Past performance is no guarantee of future results.

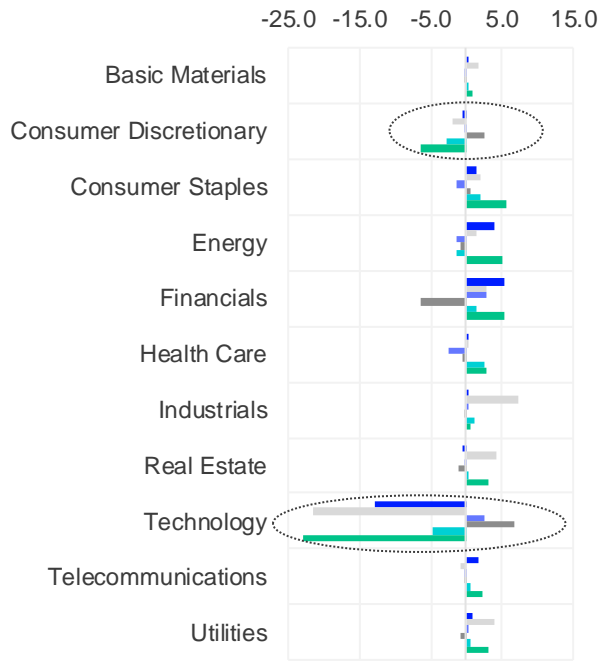
US Factor Performance & Industry Attributions — 3M

Tech exposure benefits Quality and Momentum

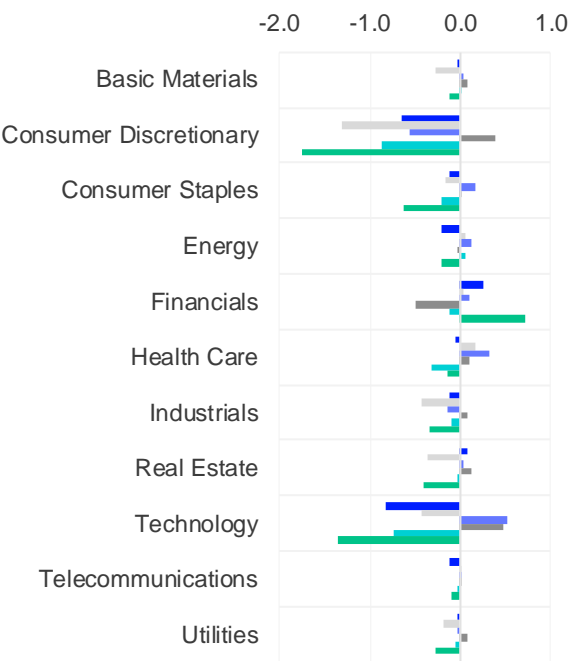
In Q4, Quality and Momentum outperformed. Quality had positive allocation effects from and selection effects within Tech and Discretionary. Momentum benefited from positive allocation effects from Health Care and Staples (to which it was underweight) and a positive selection effect within Tech. Yield and Size lagged the benchmark the most, dragged primarily by large negative allocation effects from Tech and negative selection effects within Discretionary.

2024 Q4	Relative to Benchmark (TR %)					
FTSE USA	Value	Size	Mom	Quality	Low Vol	Yield
2.7%	-1.9	-3.1	0.5	0.9	-2.3	-4.6

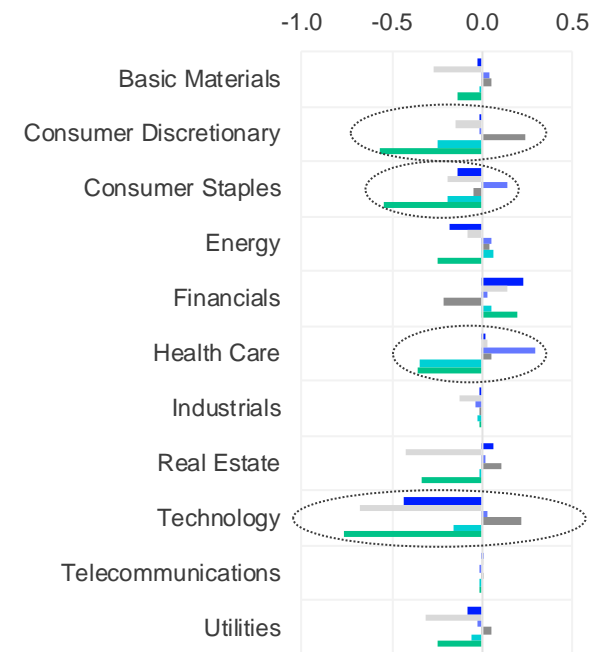
Industry active weights, 3M average



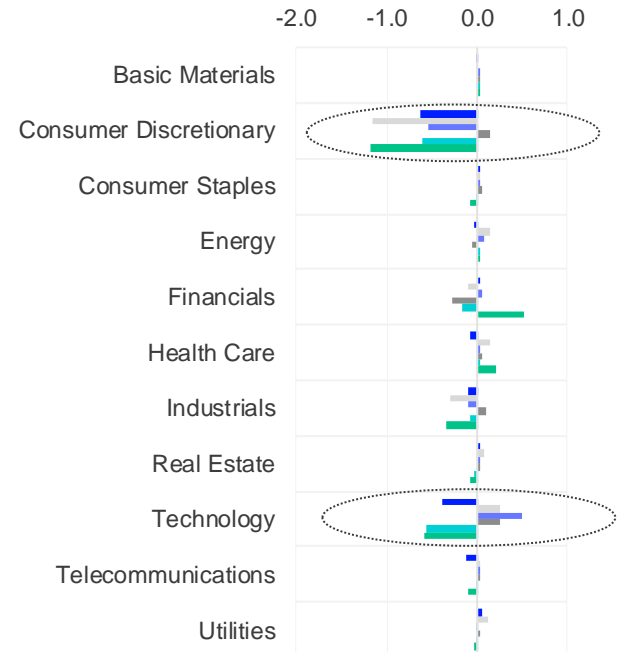
Total industry effects, 3M



Industry allocation effects, 3M



Stock selection within industry, 3M



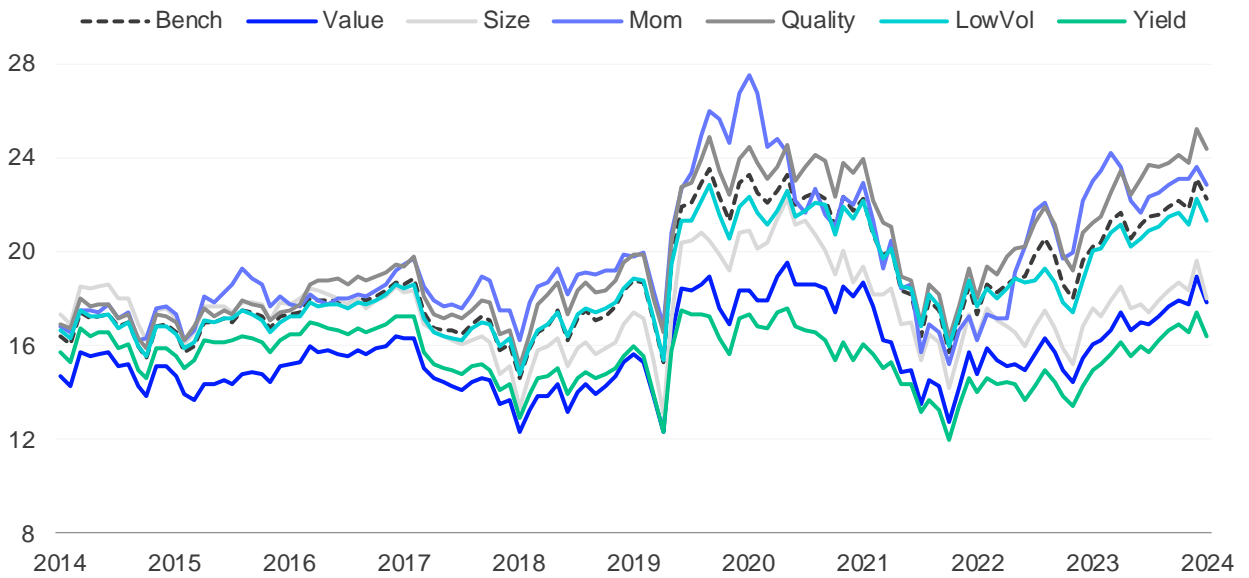
Source: FTSE Russell and LSEG. All data as of December 31, 2024. Past performance is no guarantee of future results.

US Factor Valuations

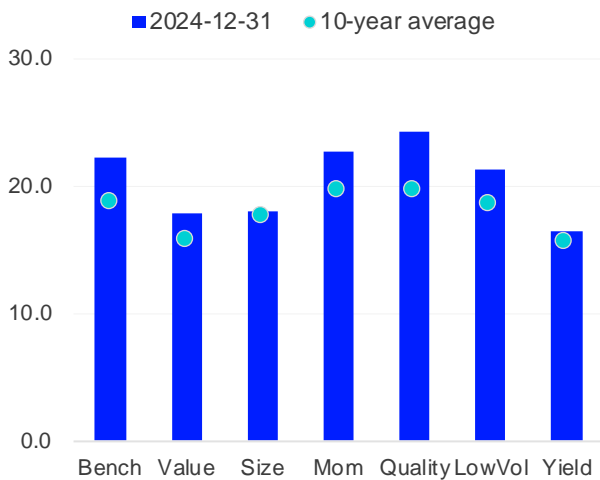
US factor forward P/Es have re-rated sharply since their trough toward the end of 2022. Despite moderating a bit over Q4, at end-2024 absolute 12M factor forward P/Es were higher than their 10-year average for all US factors, and in particular for Quality and Momentum that outperformed the benchmark over 12M. At year-end, Quality's 35% premium to Value was higher than the 10-year average Quality-Value premium of 26%. Momentum was the second most expensive relative to its historical average.

In relative terms, Quality remained the sole factor to trade above its 10-year average forward P/E, while Size continued to trade at the largest discount.

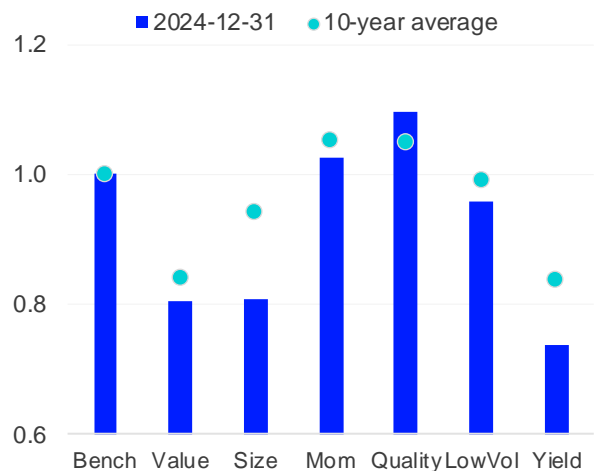
FTSE USA – Absolute 12M forward P/Es



Current Absolute 12M forward P/E vs history



Current Relative 12M forward P/E vs history



Source: FTSE Russell and LSEG. All data as of December 31, 2024. Past performance is no guarantee of future results.

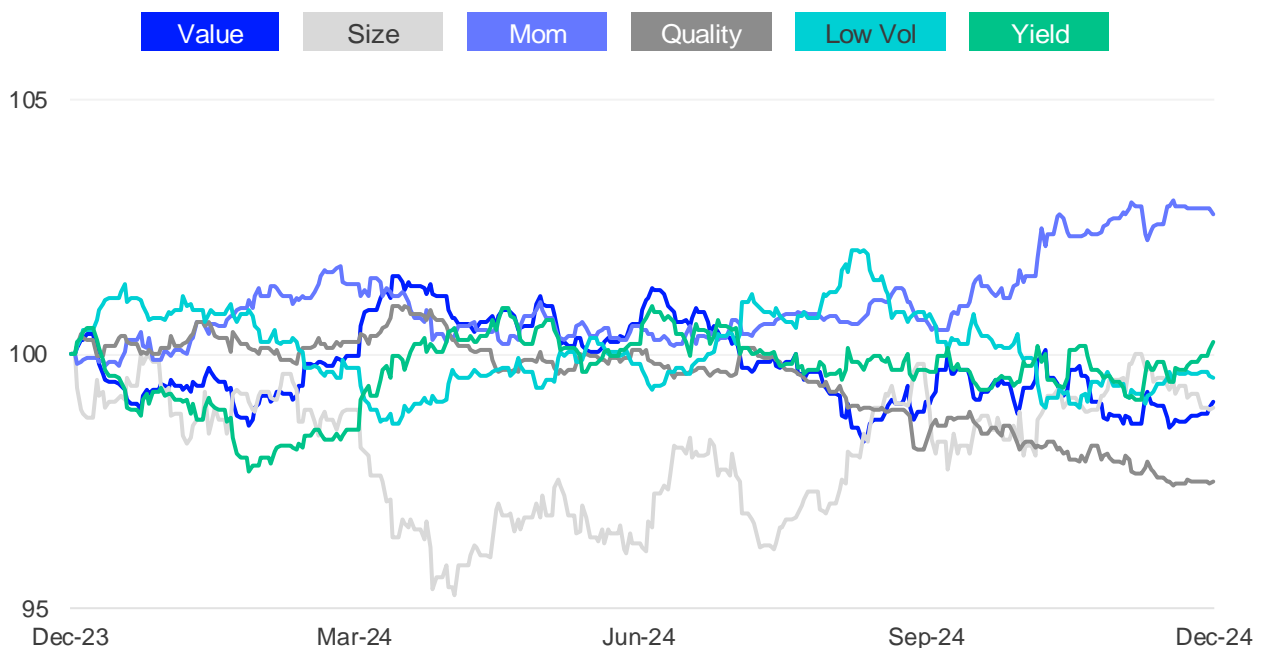
UK Equity Factor Insights

FOURTH QUARTER | 2024

Key Observations

- In Q4, Momentum led factor performance while Low Vol lagged the most. Allocation effects from and selection effects within Financials, Health Care and Basic Materials heavily influenced factor performance.
- Momentum was helped by its underweight to Basic Materials and overweight to Financials with positive allocation effects from both. Low Vol was hurt by its overweight to underperforming Health Care.
- Over 12M, Momentum outpaced the benchmark helped by Q4's performance, while Quality lagged the most.
- Factor forward P/Es rerated over 2024 despite moderating a bit in Q4. Absolute and relative 12M forward P/Es were still below their historical averages at end-2024.
- Low Vol remained the most expensive UK factor despite lagging the benchmark over Q4 and over 12M.

Factor returns relative to benchmark (rebased)



Source: FTSE Russell and LSEG. All data as of December 31, 2024. Past performance is no guarantee of future results.

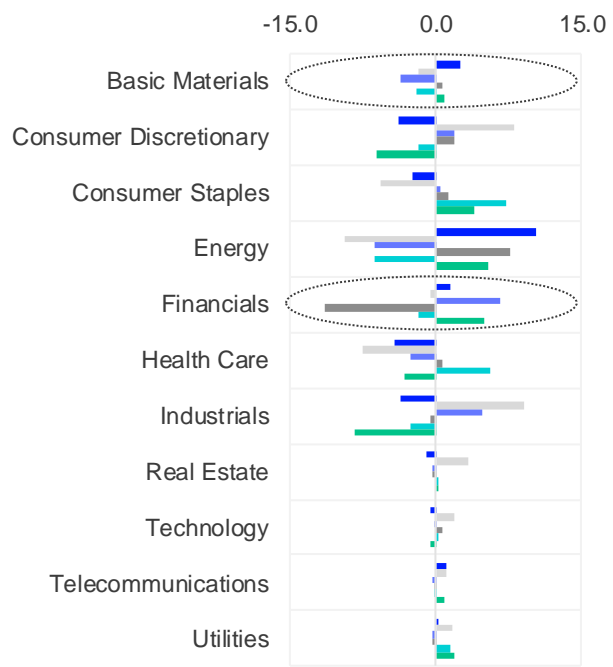
UK Factor Performance & Industry Attribution — 3M

Momentum leads; Low Vol lags the most

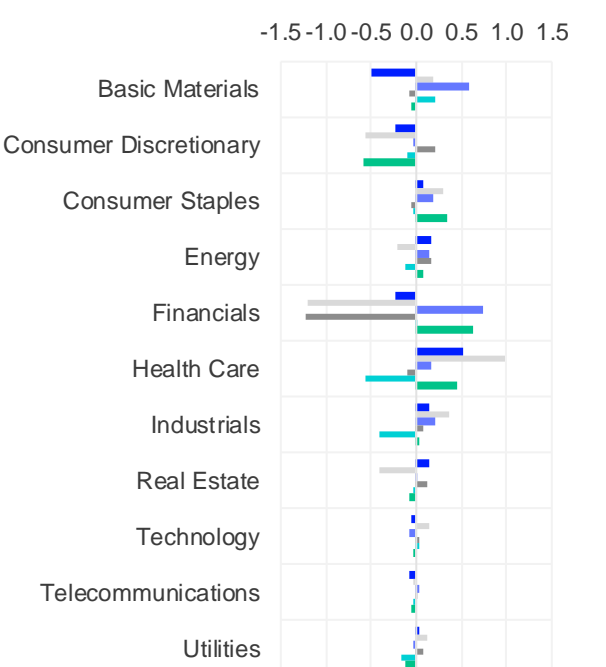
In Q4, Momentum outperformed the benchmark, helped by positive allocation effects from Basic Materials (underweight) and Financials (overweight). It further benefitted from positive selection effects within Financials and Staples, among others. Low Vol lagged the most for the quarter, with a large negative allocation effect from Health Care (overweight) and negative selection within Industrials.

2024 Q4	Relative to Benchmark (TR %)					
FTSE UK	Value	Size	Mom	Quality	Low Vol	Yield
0.6%	0.0	-0.5	2.1	-0.8	-1.2	0.6

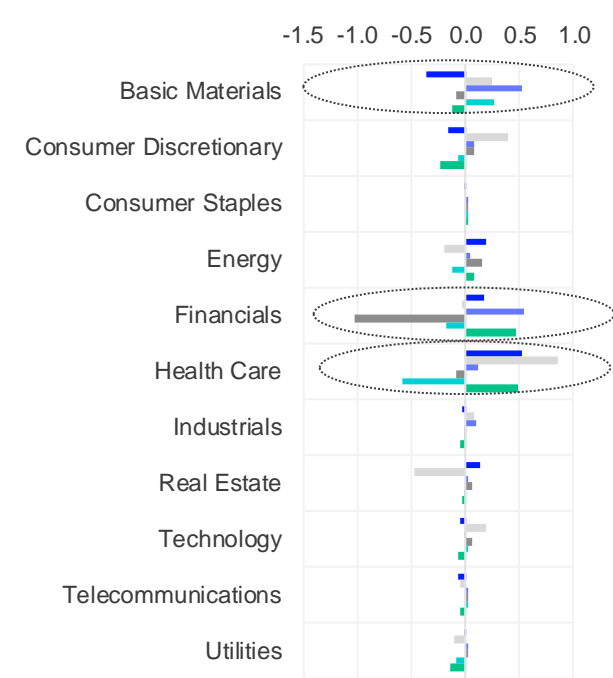
Industry active weights, 3M average



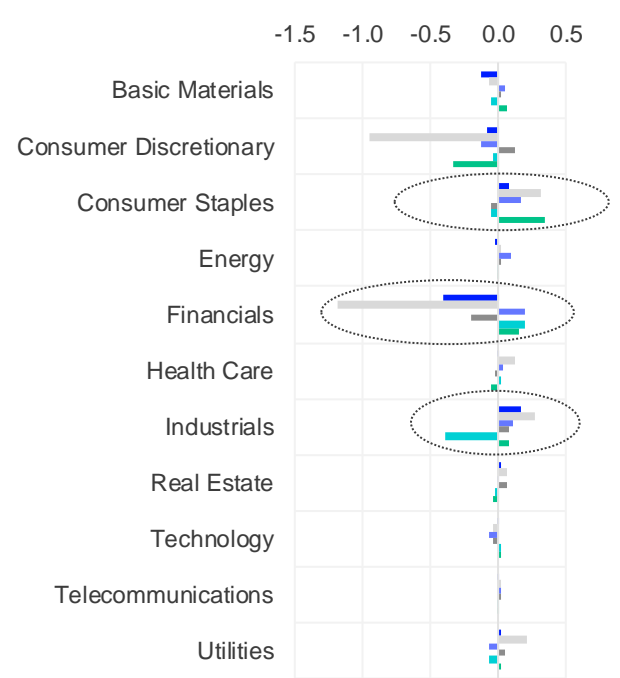
Total industry effects, 3M



Industry allocation effects, 3M



Stock selection within industry, 3M



Source: FTSE Russell and LSEG. All data as of December 31, 2024. Past performance is no guarantee of future results.

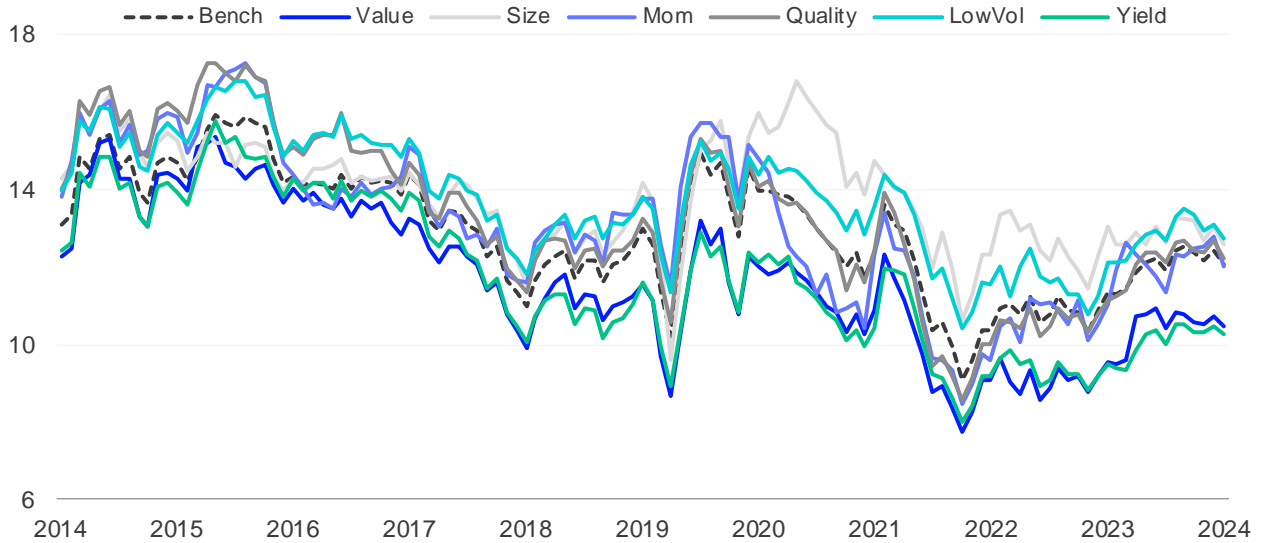
UK Factor Valuations

UK factor forward P/Es rerated across the board in 2024, despite moderating a bit in Q4. They still remained well below their 10-year averages in absolute terms. Yield traded at the largest discount to its historical average at end-2024. The Quality-Value premium narrowed over Q4 with Quality's underperformance and was at 17%, still above the 10-year average premium of 14%.

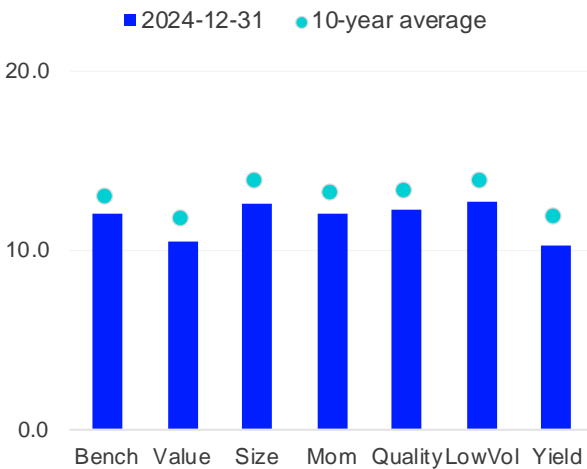
In relative terms, again, all factors traded well below their historical averages with Yield at the largest discount to its long-term average.

Among UK factors Low Vol remains the most expensive on both an absolute and relative basis, followed by Size.

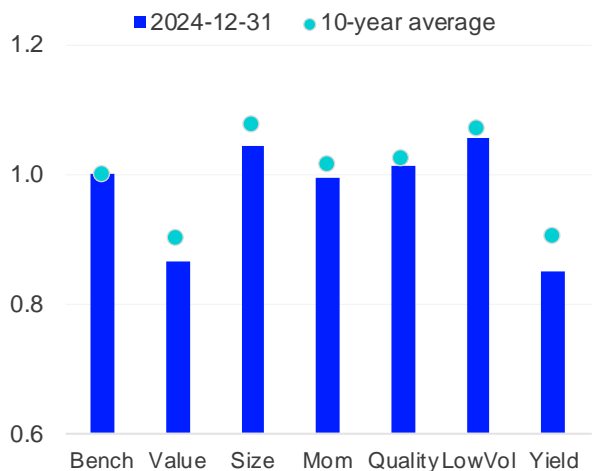
FTSE UK – Absolute 12M forward P/Es



Current Absolute 12M forward P/Es vs history



Current Relative 12M forward P/Es vs history



Source: FTSE Russell and LSEG. All data as of December 31, 2024. Past performance is no guarantee of future results.

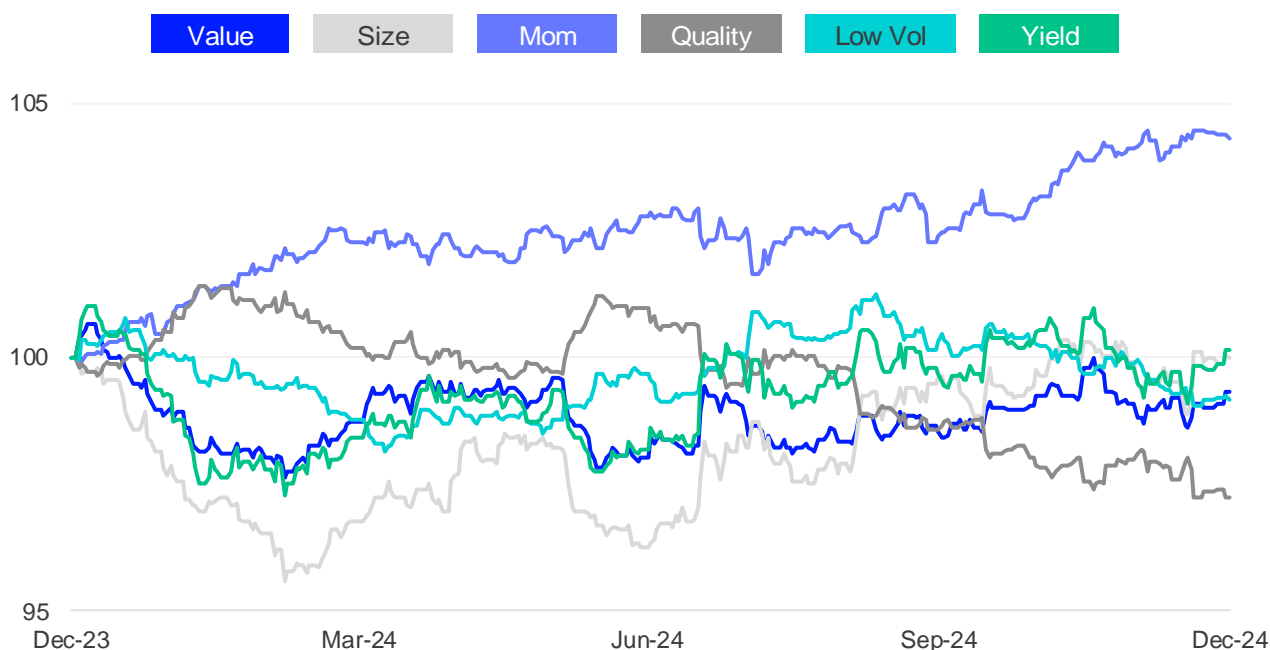
Europe ex UK Equity Factor Insights

FOURTH QUARTER | 2024

Key Observations

- In Q4, Momentum rebounded to lead factor relative performance, while Quality lagged the most. Allocation effects from and selection effects within Financials and Health Care greatly influenced factor performance.
- Momentum was helped by positive allocation effects from Financials and Staples, and positive selection within several industries over the quarter.
- Over 12M, Momentum outpaced other factors on relative performance, notwithstanding its Q3 underperformance. Quality lagged the benchmark the most, while Size and Yield were more or less flat.
- Absolute factor forward P/Es derated in Q4 and remained below their 10-year averages. Over 2024, most factor forward P/Es rerated.
- In relative terms, Quality and Low Vol remained expensive and traded above their historical averages.

Factor returns relative to benchmark (rebased)



Source: FTSE Russell and LSEG. All data as of December 31, 2024. Past performance is no guarantee of future results.

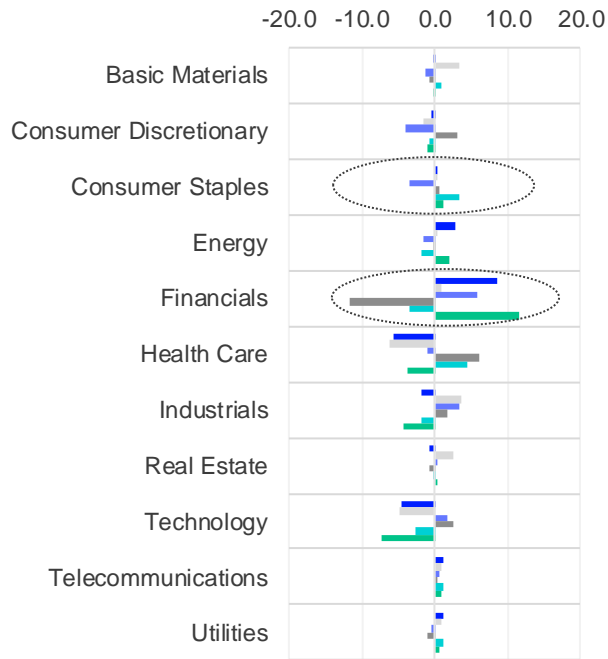
Europe ex UK Factor Performance & Industry Attribution — 3M

Momentum rebounds to lead

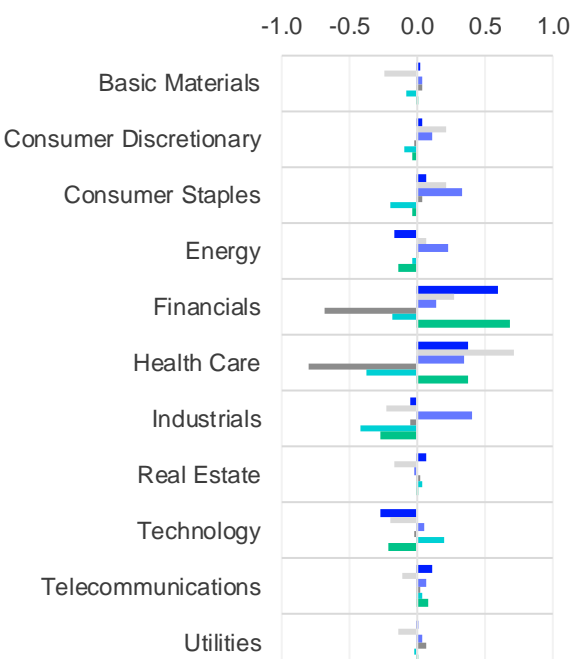
In Q4, Momentum led factor relative performance, followed by Value, Yield and Size. Quality and Low Vol lagged for the quarter. Momentum benefited from positive allocation effects from Financials (overweight) and Staples (underweight) and positive selection within Industrials, Healthcare and Energy, among others. Negative allocation from Financials and Health Care, and a large negative selection effect within Health Care weighed on Quality's performance.

2024 Q4	Relative to Benchmark (TR %)					
FTSE Dev Europe ex UK	Value	Size	Mom	Quality	Low Vol	Yield
-3.4%	0.8	0.4	1.8	-1.3	-1.1	0.5

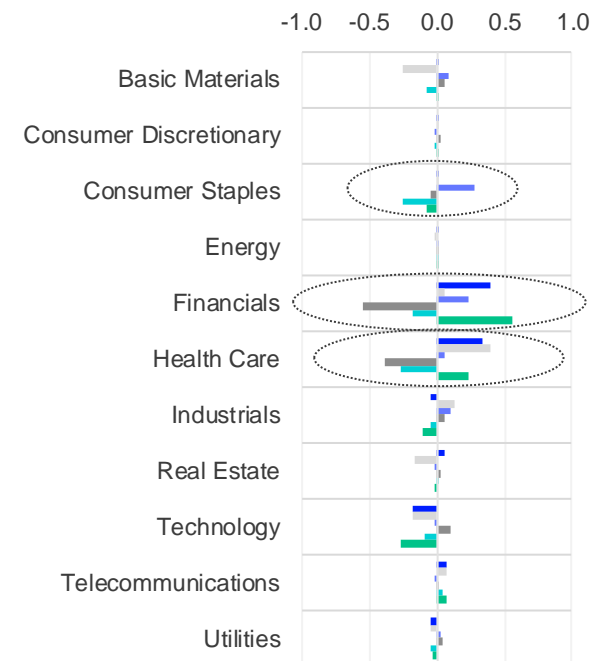
Industry active weights, 3M average



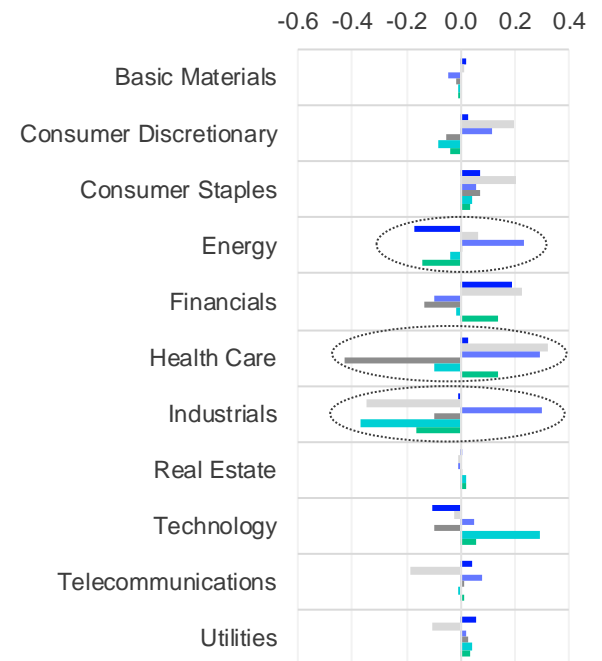
Total industry effects, 3M



Industry allocation effects, 3M



Stock selection within industry, 3M



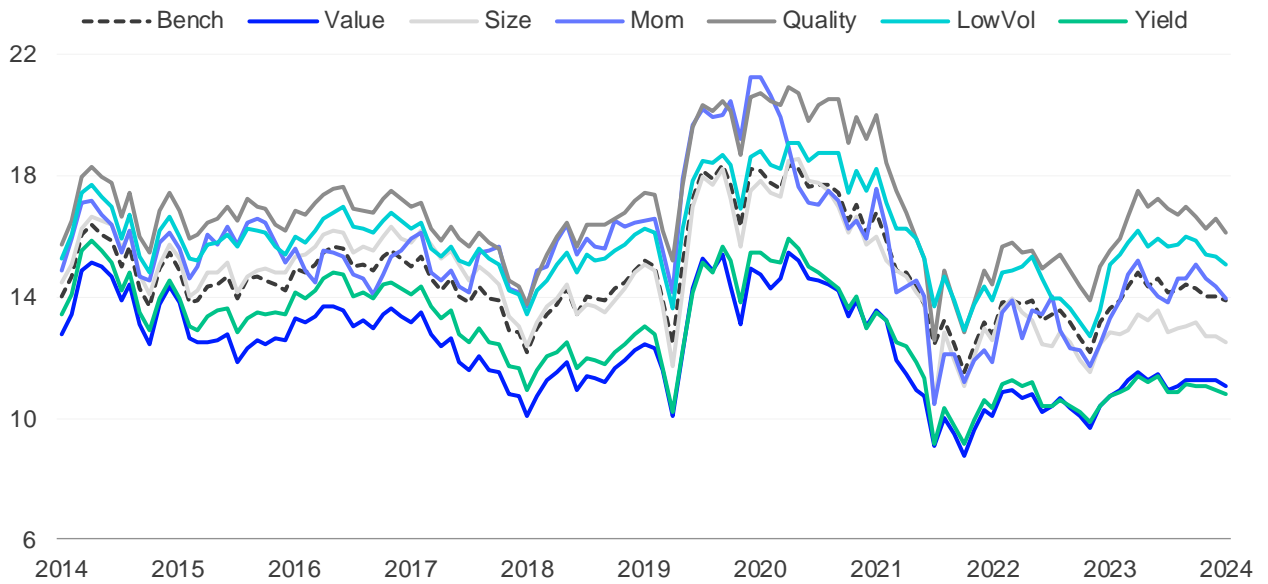
Source: FTSE Russell and LSEG. All data as of December 31, 2024. Past performance is no guarantee of future results.

Europe ex UK Factor Valuations

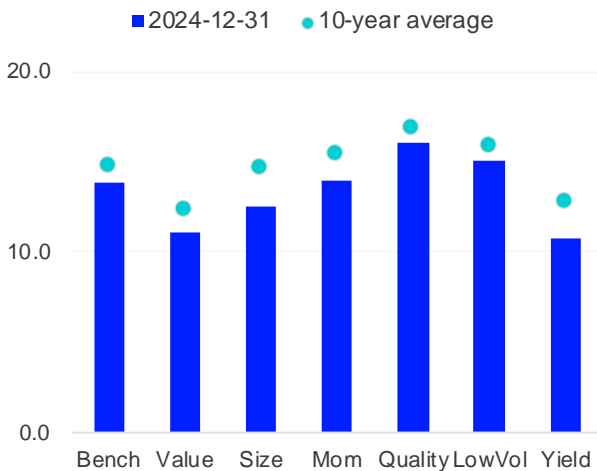
In Q4, factor forward P/Es derated and at end-2024 absolute forward P/Es for all factors were below their 10-year averages. Quality's premium over Value declined slightly to 46% but was still higher than the historical average premium of 37%. Over 2024, however, most European factor forward P/Es rerated, except for Size and Low Vol, which derated.

In relative terms, Quality and Low Vol remained the most expensive and traded above their 10-year average P/Es during a year when the benchmark rerated from 13.6x to 13.9x (still below the historical average).

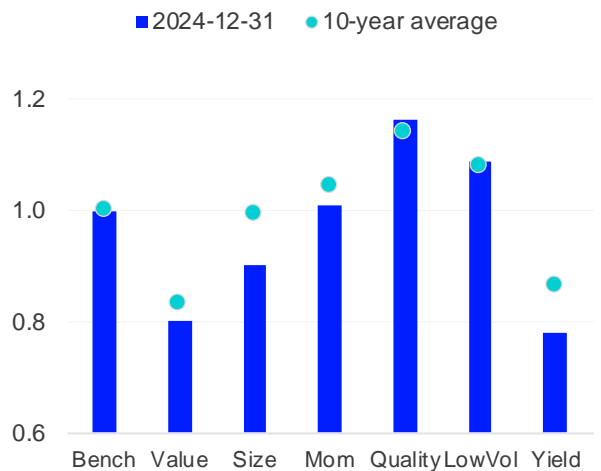
FTSE Europe ex UK – Absolute 12M forward P/Es



Current Absolute 12M forward P/Es vs history



Current Relative 12M forward P/Es vs history



Source: FTSE Russell and LSEG. All data as of December 31, 2024. Past performance is no guarantee of future results.

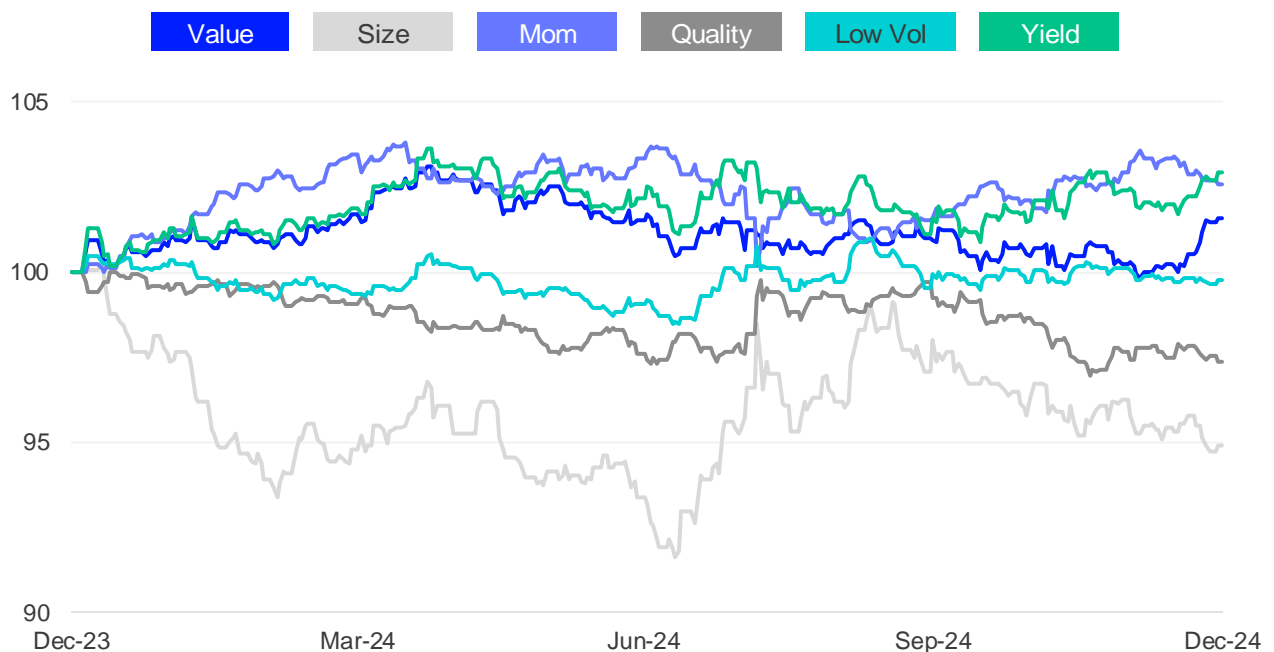
Japan Equity Factor Insights

FOURTH QUARTER | 2024

Key Observations

- In Q4, Momentum and Yield outperformed the benchmark. Size lagged the most in a reversal from Q3. Allocation effects from and selection effects within Financials and Discretionary largely influenced factor performance.
- Yield benefited from its Financials overweight with positive selection effects. Size was mainly hurt by its Financials underweight and negative selection within Financials and Discretionary.
- Over 12M, Yield, Momentum and Value outperformed the benchmark, while Size lagged the most despite outperforming in Q3.
- In Q4, absolute factor forward P/Es rerated for Value, Momentum and Quality. At end-2024 the Quality-Value premium was higher than the historical average.
- In relative terms, Quality, Momentum and Value traded above their 10-year average P/Es.

Factor returns relative to benchmark (rebased)



Source: FTSE Russell and LSEG. All data as of December 31, 2024. Past performance is no guarantee of future results.

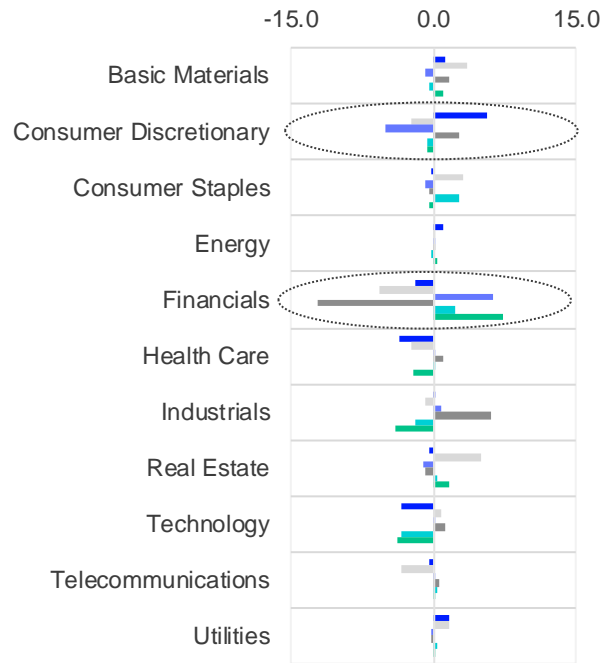
Japan Factor Performance & Industry Attribution — 3M

Momentum and Yield lead relative returns, Size lags

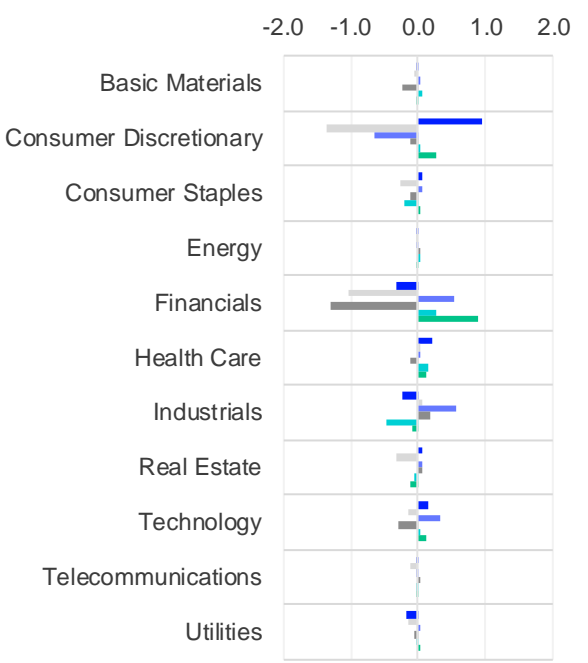
In Q4, Momentum and Yield outperformed the benchmark. Size lagged the most in a reversal from Q3, followed by Quality. A large positive allocation effect from Financials (overweight) and selection effect within Discretionary helped Yield's outperformance. Size and Quality were hurt by negative allocation effects from Financials (underweight) and negative selection within Discretionary, Financials and Technology.

2024 Q4	Relative to Benchmark (TR %)					
FTSE Japan	Value	Size	Mom	Quality	Low Vol	Yield
5.4%	0.7	-3.3	1.0	-2.0	-0.2	1.4

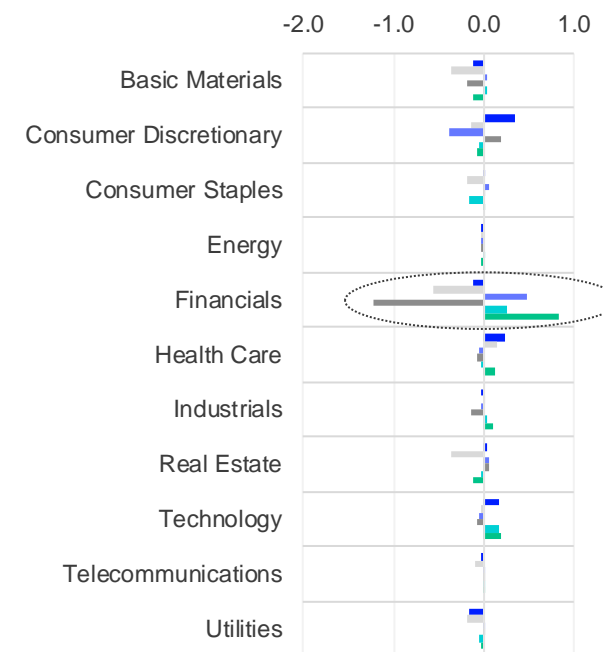
Industry active weights, 3M average



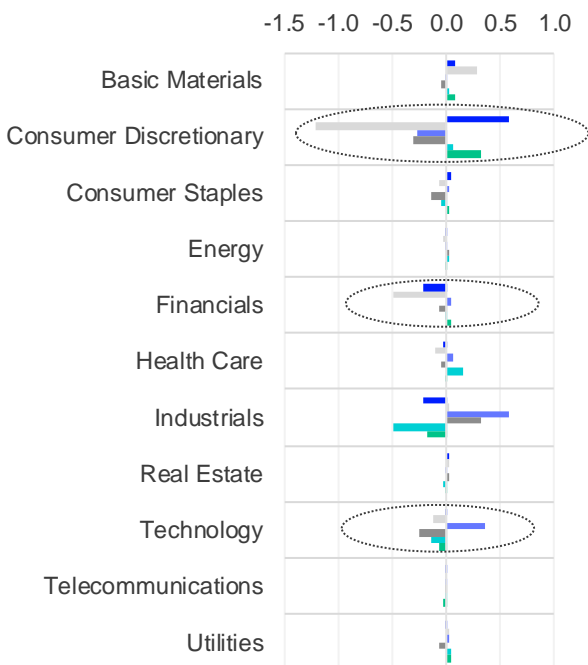
Total industry effects, 3M



Industry allocation effects, 3M



Stock selection within industry, 3M



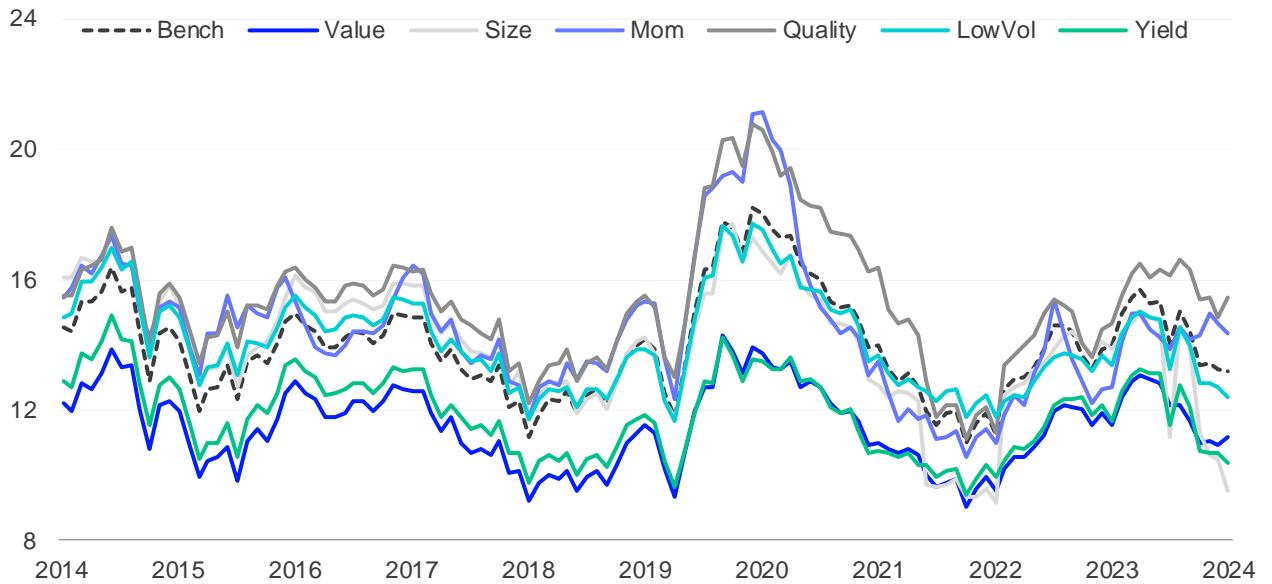
Source: FTSE Russell and LSEG. All data as of December 31, 2024. Past performance is no guarantee of future results.

Japan Factor Valuations

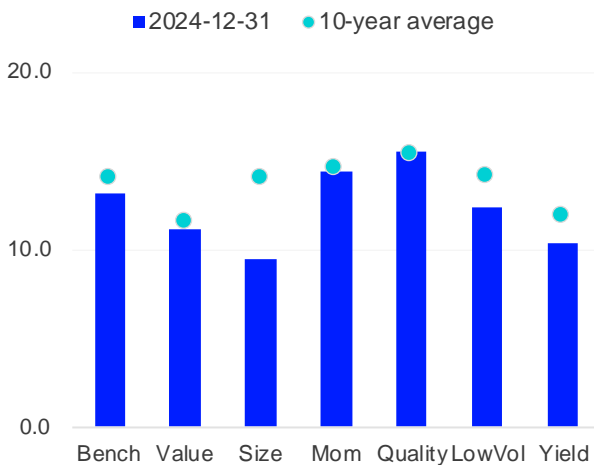
In Q4, factor forward P/Es expanded for Value, Momentum and Quality. At end-2024 absolute factor forward P/Es were below their 10-year averages except for Quality. The Quality-Value premium narrowed to 38% but was still higher than its historical average of 34%. Over 2024, Japan factors except Quality and Momentum de-rated.

In relative terms, Quality, Momentum and Value remain expensive relative to their historical averages.

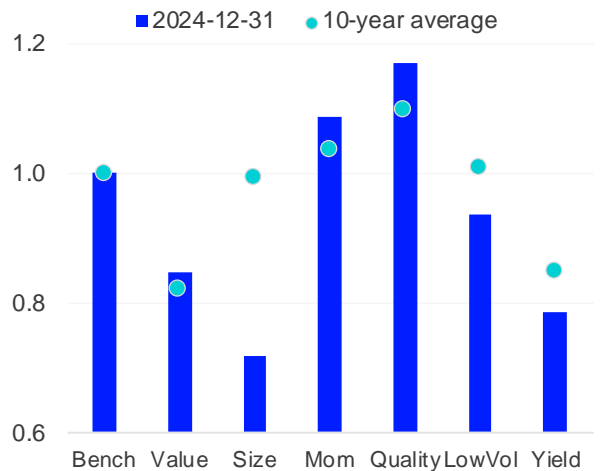
FTSE Japan – Absolute 12M forward P/Es



Current Absolute 12M P/Es vs history



Current Relative 12M P/Es vs history



Source: FTSE Russell and LSEG. All data as of December 31, 2024. Past performance is no guarantee of future results.

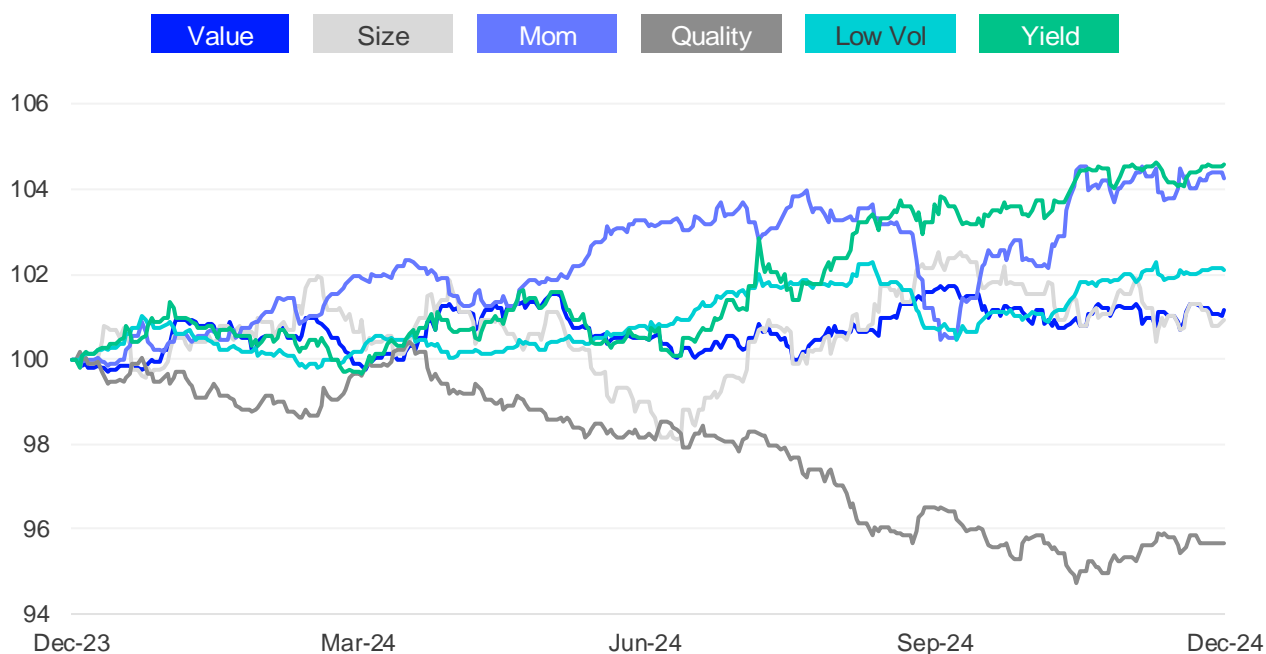
Asia Pacific ex Japan Equity Factor Insights

FOURTH QUARTER | 2024

Key Observations

- In Q4, Momentum led factor relative performance, while Size lagged the most in a reversal from Q3. Large allocation effects from and selection effects within Financials and Basic Materials were the main drivers.
- Momentum benefitted from its underweight to Basic Materials and overweight to Financials with positive allocation effects. It was also helped by large positive selection effects within Financials and Industrials.
- Over 12M, Yield led factor relative performance, followed closely by Momentum, while Quality lagged badly.
- Factor forward P/Es contracted in Q4, except for Momentum. At end-2024, absolute factor forward P/Es were below their long-term averages.
- In relative terms, Momentum, Quality and Low Vol were expensive relative to history.

Factor returns relative to benchmark (rebased)



Source: FTSE Russell and LSEG. All data as of December 31, 2024. Past performance is no guarantee of future results.

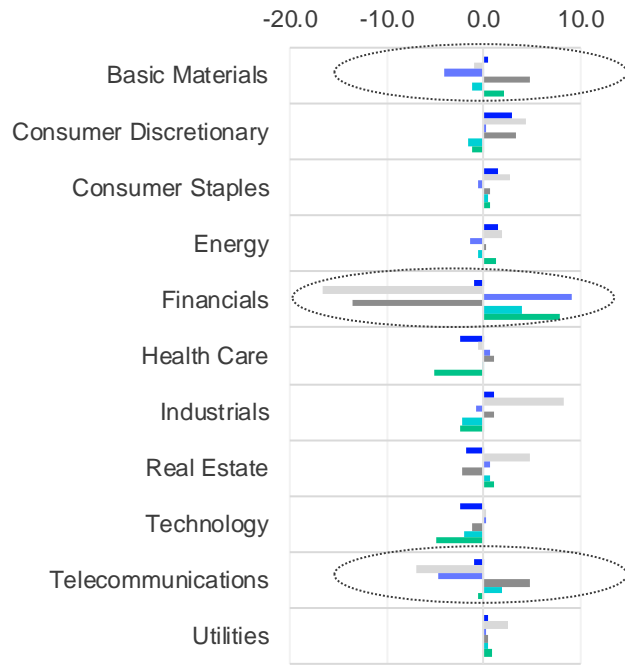
Asia Pac ex Japan Factor Performance & Industry Attribution — 3M

Momentum outpaces benchmark

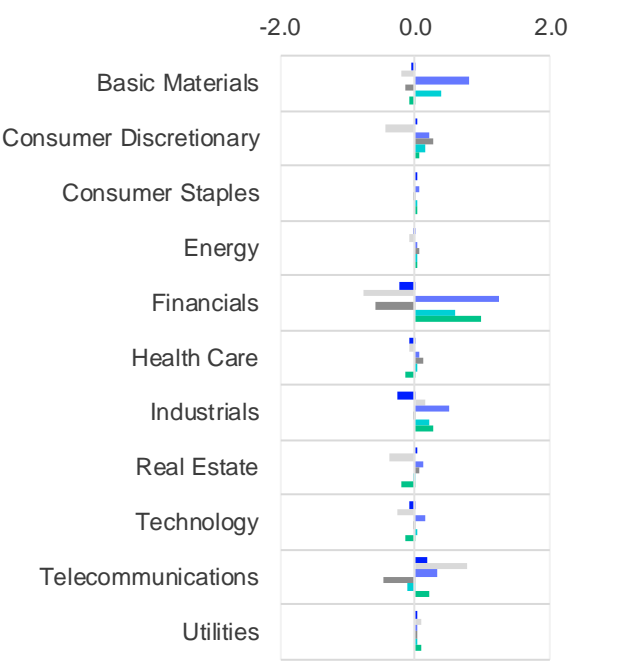
In Q4, Momentum led factor relative performance, while Size lagged the most in a reversal from Q3. Momentum benefitted from positive allocation effects from Basic Materials (underweight) and Financials (overweight), and large positive selection within Financials and Industrials, among others. Conversely, Size was hurt by large negative allocation effects from Financials (underweight) and negative selection within Discretionary, Basic Materials and Technology.

2024 Q4	Relative to Benchmark (TR%)					
FTSE Dev Asia Pacific exJP	Value	Size	Mom	Quality	Low Vol	Yield
-3.8%	-0.5	-1.2	3.2	-0.8	1.3	0.9

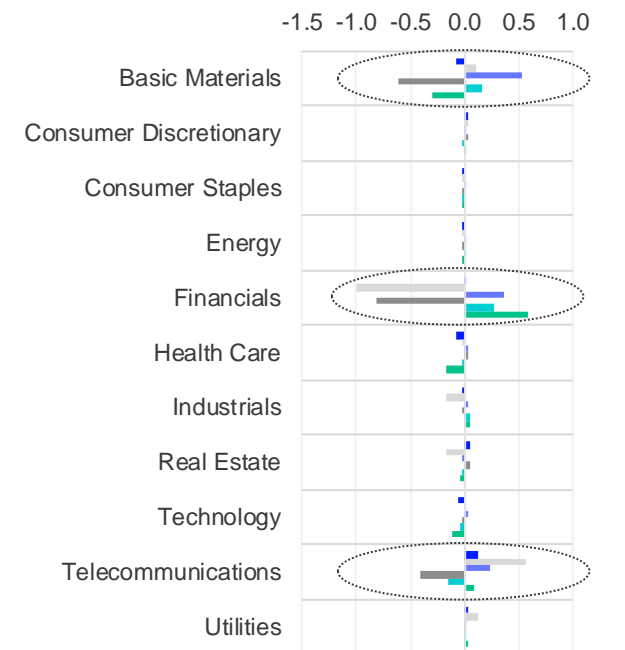
Industry active weights, 3M average



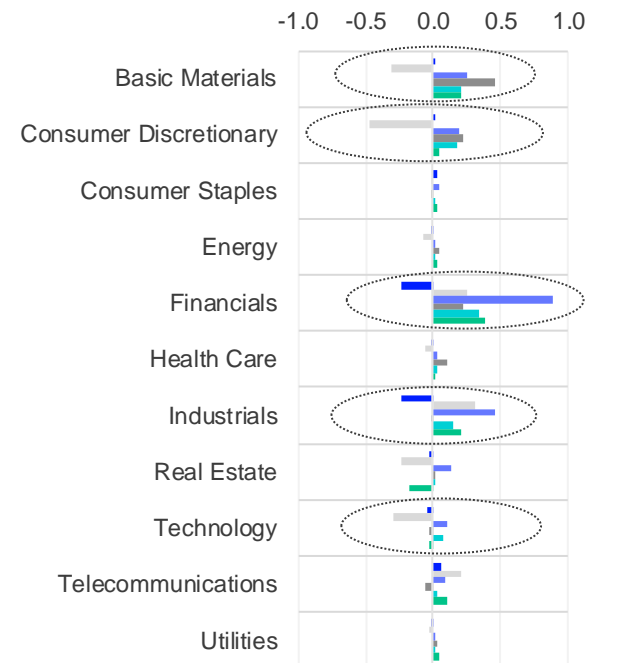
Total industry effects, 3M



Industry allocation effects, 3M



Stock selection within industry, 3M



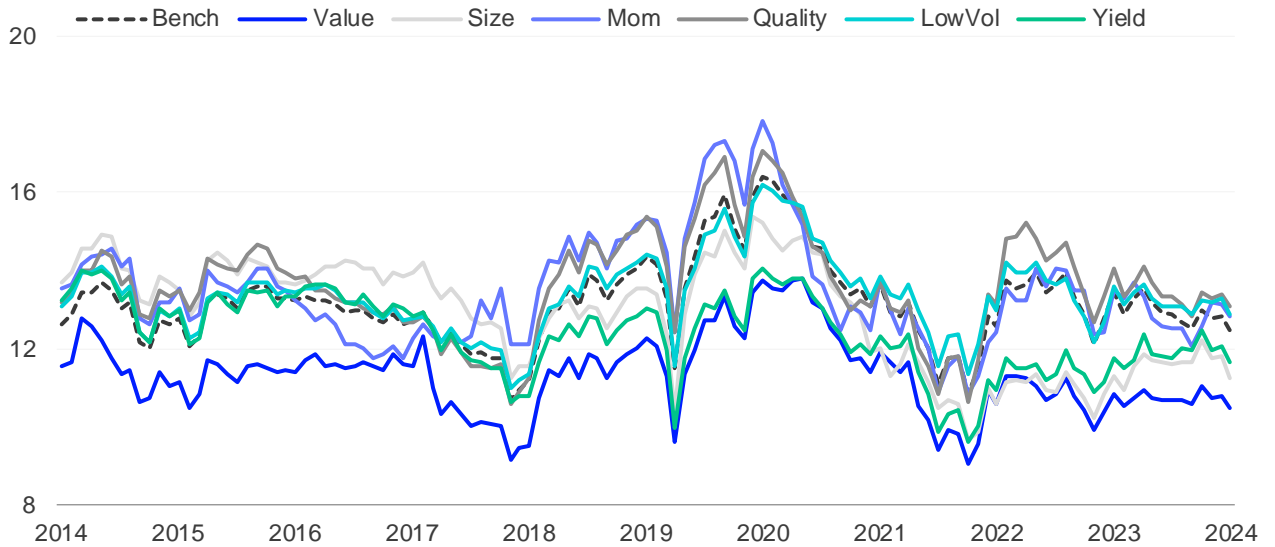
Source: FTSE Russell and LSEG. All data as of December 31, 2024. Past performance is no guarantee of future results.

Asia Pacific ex Japan Factor Valuations

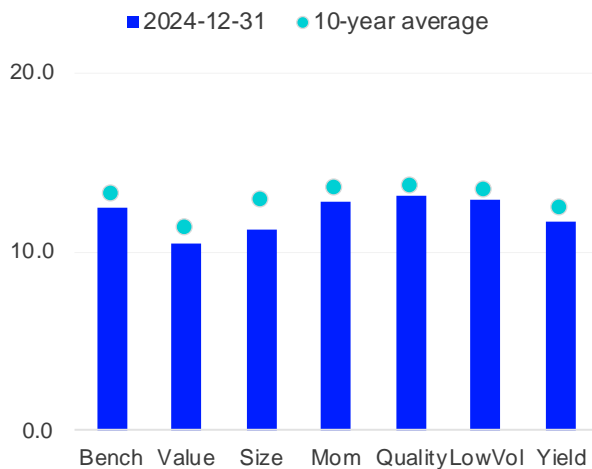
In Q4, Asia Pacific ex Japan factor forward P/Es contracted, except for Momentum which expanded. All factors derated over 2024. At end-2024, all absolute factor forward P/Es were below their 10-year averages. The Quality/Value premium, at 25% was still above its 10-year average of 21%.

In relative terms, Momentum, Quality and Low Vol were expensive, trading above their historical averages.

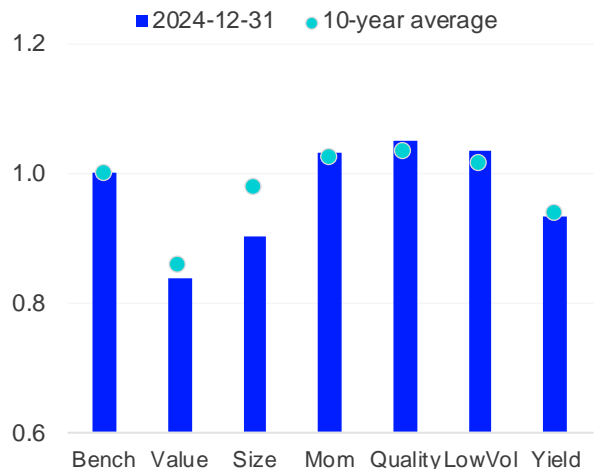
FTSE Asia Pacific ex Japan – Absolute 12M forward P/Es



Current Absolute 12M forward P/Es vs history



Current Relative 12M forward P/Es vs history



Source: FTSE Russell and LSEG. All data as of December 31, 2024. Past performance is no guarantee of future results.

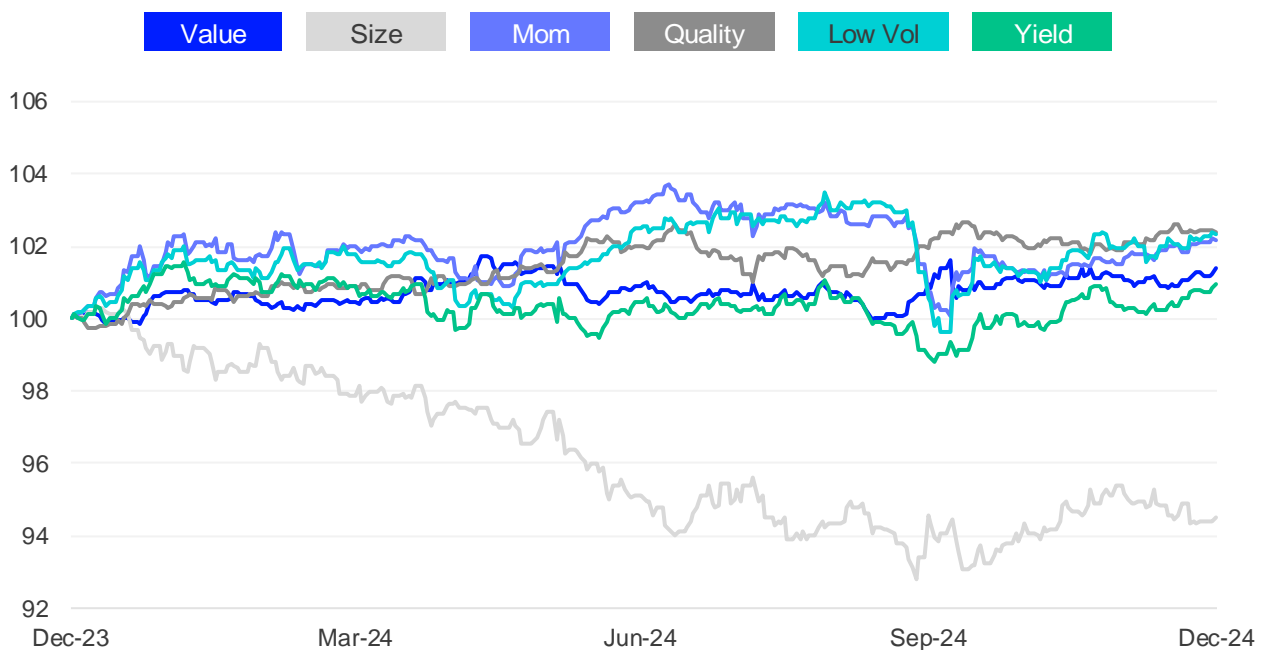
Emerging Markets Equity Factor Insights

FOURTH QUARTER | 2024

Key Observations

- In Q4, most EM factors, except Size, outperformed the benchmark. Size underperformed marginally. Allocation effects from and selection effects within Financials, Tech and Discretionary drove the bulk of factor performance.
- Yield and Low Vol led with positive allocation effects from Discretionary and Financials, and positive selection within Tech and Financials.
- Over 12M, most factors outperformed the benchmark, with Size lagging steeply, notwithstanding an early-Q4 rebound in Size's relative performance.
- All EM factor forward P/E's contracted during Q4, although they expanded over 2024. In absolute terms, 12M forward P/E's for all factors remained above their 10-year averages.
- In relative terms, Momentum and Size traded at historical discounts.

Factor returns relative to benchmark (rebased)



Source: FTSE Russell and LSEG. All data as of December 31, 2024. Past performance is no guarantee of future results.

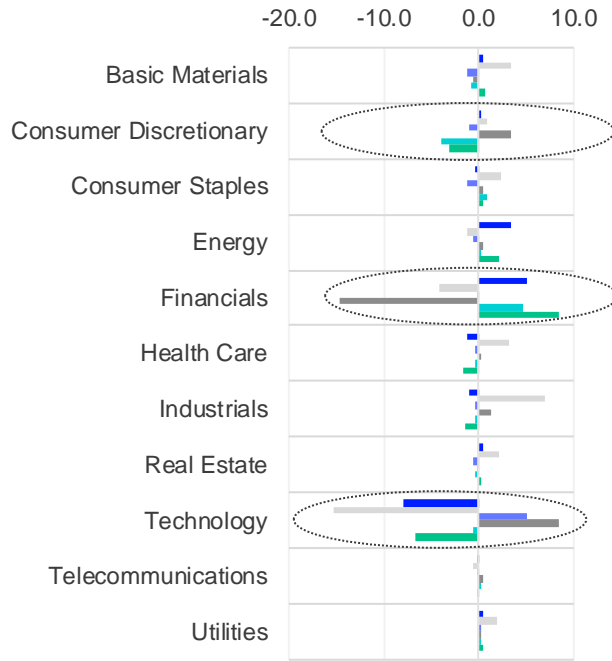
Emerging Markets Factor Performance & Industry Attribution — 3M

Factors lead benchmark broadly

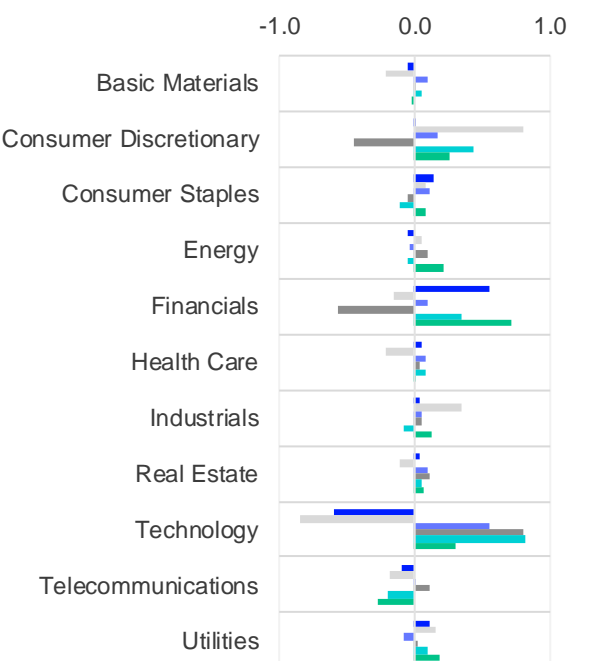
In Q4, all factors outperformed the benchmark, except Size which marginally underperformed. Yield and Low Vol benefitted from positive allocation effects from Financials (overweight) and Discretionary (underweight). They were hurt by an underweight to Tech but had large positive selection effects within Tech and Financials, among others. Size was mainly dragged by a large negative allocation effect from Tech (underweight).

2024 Q4	Relative to Benchmark (TR %)					
FTSE Emerging	Value	Size	Mom	Quality	Low Vol	Yield
-3.8%	0.4	-0.1	1.4	0.4	1.7	1.9

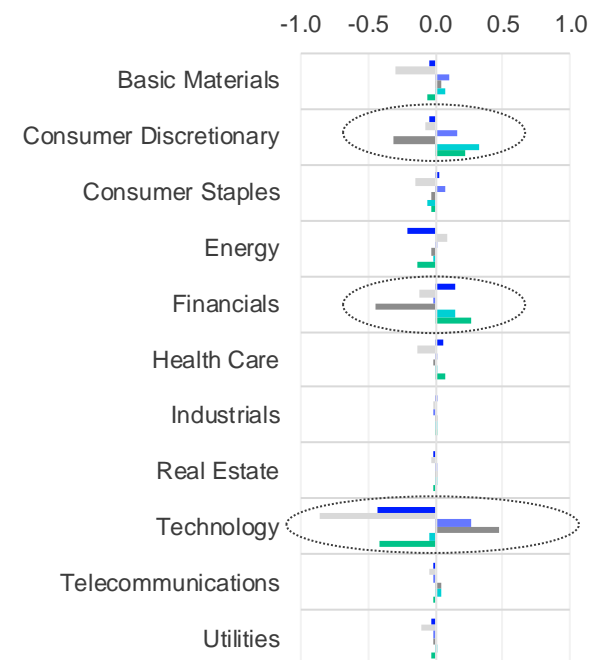
Industry active weights, 3M average



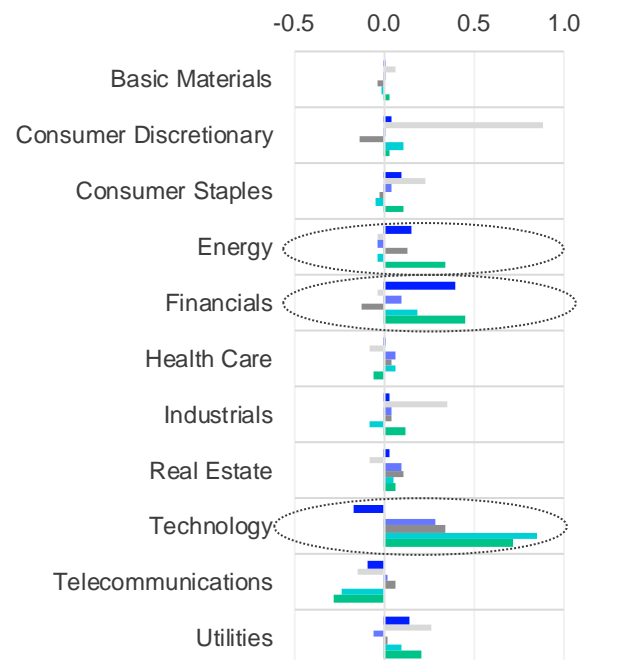
Total industry effects, 3M



Industry allocation effects, 3M



Stock selection within industry, 3M



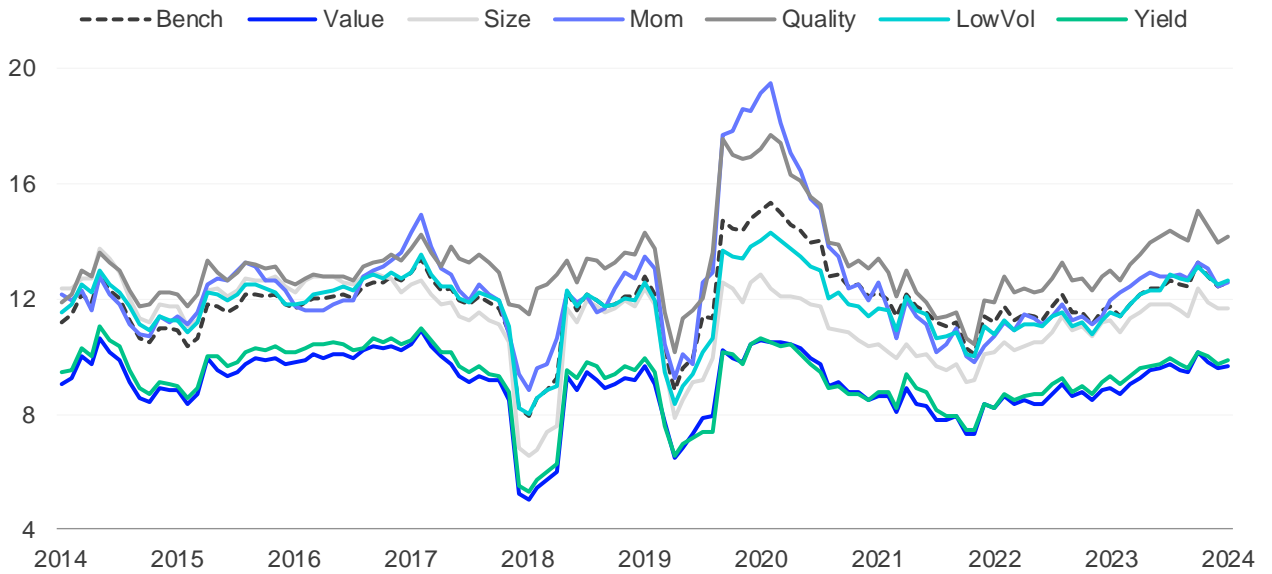
Source: FTSE Russell and LSEG. All data as of December 31, 2024. Past performance is no guarantee of future results.

Emerging Markets Factor Valuations

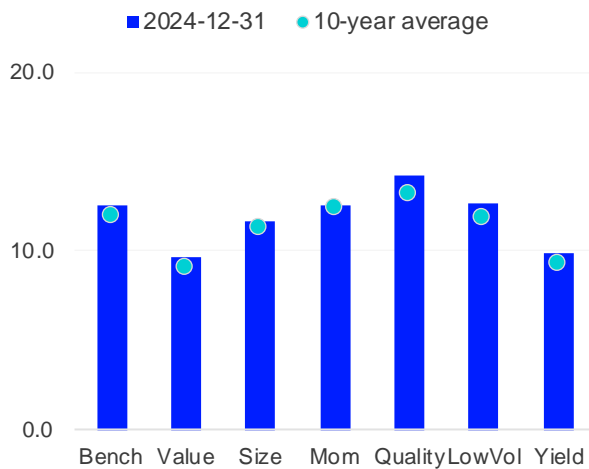
In Q4, all EM factor forward P/Es contracted, although they expanded over 2024. At end-2024, absolute 12M forward P/Es for all factors remained above their 10-year averages, with Quality trading at the largest premium to its long-term average followed by Low Vol. The Quality/Value premium, at 47%, was close to its long-term average.

In relative terms, Momentum and Size still traded at a discount to their long-term averages.

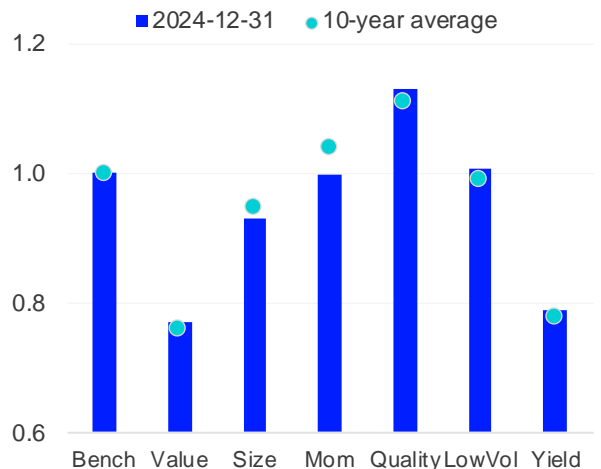
FTSE Emerging – Absolute 12M forward P/Es



Current Absolute 12M forward P/Es vs history



Current Relative 12M forward P/Es vs history



Source: FTSE Russell and LSEG. All data as of December 31, 2024. Past performance is no guarantee of future results.

FTSE Russell US Factor Index Risk/Return Performance

5-Year Annualized Return and Volatility (USD)



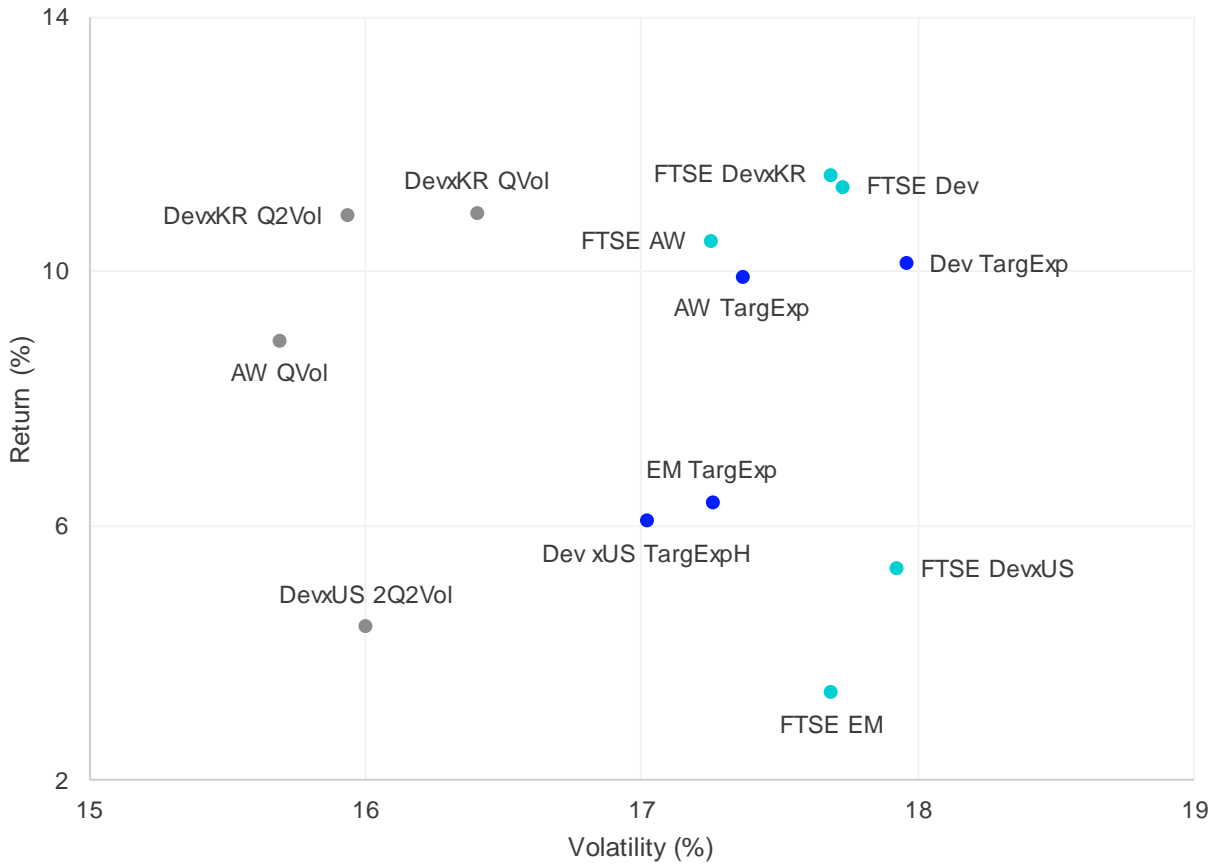
Annualized Returns and Volatility (USD %)

Label	Index	1-yr return	5-yr return	5-yr volatility
Diversified Indices				
● R1000 ERC	Russell 1000 Comprehensive Equal Factor Risk Contribution	22.3	14.8	18.7
● R1000 TargExp	Russell 1000 Comprehensive Target Exposure Factor Index	15.6	13.0	18.8
Defensive Indices				
● R2000 2Q2Vol	Russell 2000 2Qual/2Vol 3% Capped Factor Index	12.1	8.0	21.0
● USA QVolYld	FTSE USA Qual/Vol/Yield Factor Index	10.2	7.4	16.0
Benchmarks				
● FTSE USA	FTSE USA Index	25.1	14.5	18.3
● R1000	Russell 1000® Index	24.5	14.3	18.5
● R2000	Russell 2000® Index	11.5	7.4	24.5

Source: FTSE Russell and LSEG. All data as of December 31, 2024. Past performance is no guarantee of future results.

FTSE Russell Global Factor Index Risk/Return Performance

5-Year Annualized Return and Volatility (USD)



Annualized Return and Volatility (USD %)

Label	Index	1-yr return	5-yr return	5-yr volatility
Diversified Indices				
● AW TargExp	FTSE All-World Comprehensive Target Exposure Factor Index	11.8	9.9	17.4
● Dev TargExp	FTSE Developed Comprehensive Target Exposure Factor Index	11.3	10.1	18.0
● Dev xUS TargExpH	FTSE Developed ex US Comprehensive High Target Exposure	9.1	6.1	17.0
● EM TargExp	FTSE Emerging Comprehensive Target Exposure Factor Index	14.8	6.4	17.3
Defensive Indices				
● AW Qvol	FTSE All-World Target Exposure Qual Vol Factor Index	13.8	8.9	15.7
● DevxKR Q2Vol	FTSE Developed ex Korea Qual/2 Vol Factor Index	11.9	10.9	15.9
● DevxKR QVol	FTSE Developed ex Korea Qual/Vol Factor Index	12.3	10.9	16.4
● DevxUS 2Q2Vol	FTSE Developed ex US 2Qual/2Vol 5% Capped Factor Index	-1.5	4.4	16.0
Benchmarks				
● FTSE AW	FTSE All-World Index	17.7	10.5	17.2
● FTSE DevxKR	FTSE Developed ex Korea Index	18.9	11.5	17.7
● FTSE DevxUS	FTSE Developed Ex US Index	3.8	5.3	17.9
● FTSE Dev	FTSE Developed Index	18.2	11.3	17.7
● FTSE EM	FTSE Emerging Index	12.8	3.4	17.7

Source: FTSE Russell and LSEG. All data as of December 31, 2024. Past performance is no guarantee of future results.

Notes and Glossary

Notes on Market Maps Factor Data

FTSE Russell employs a bottom-up “tilting” approach to create factor indices. Factor scores are calculated that range from 0 to 1, with higher scores being better. The underlying cap-weighted benchmark weights are multiplied by these scores, and this product is renormalized to give the factor index weights.

Intuitively, the index weights start with the benchmark weights and “tilt” towards stocks with better factor scores and away from stocks with worse factor scores. The magnitude of the index’s factor exposure can be controlled by raising the factor scores by an exponent, with higher exponents yielding higher factor exposure. All data in this Market Maps Equity Factor Insights report is based on hypothetical factor indicators that use an exponent (or tilt size) of 1 and are rebalanced monthly. For more Information on Factor Index Ground Rules and Construction Methodology, see: [FTSE Global Factor Index Series Ground Rules v4.4, January 2019](#)

The base indices used in this report are the FTSE USA, FTSE UK, FTSE Developed Europe ex UK, FTSE Japan, FTSE Developed Asia Pacific ex Japan, and FTSE Emerging indices.

Glossary of Terms

VALUE

Earnings Yield (E/P) – Latest reported annual earnings per share divided by full market capitalization. Earnings are based on net income from continuing operations, before amortization of goodwill and extraordinary items and after tax, minority interests, preferred dividend, at fiscal year end.

Cash-Flow Yield (CF/P) – Latest reported annual cash-flow yield is cash earnings per share divided by full market capitalization. Cash earnings are earnings plus depreciation, amortization, deferred taxes, other non-cash items, extraordinary item and changes in working capital for the most recent fiscal year.

Sales-to-Price (S/P) – Latest annual sales from continuing operations per share for the full fiscal year divided by full market capitalization. Sales values are generally as reported but occasional adjustments may be made. They are also computed for banks, insurance and other financial companies based on appropriate definitions. Sales are attributed across different share classes, where common equity is comprised of more than one share type.

MOMENTUM: Measure of changes in total stock returns in local currency terms over those of the previous year excluding the most recent month.

SIZE: Size is calculated as the natural logarithm of each company’s full market capitalization in US dollars.

QUALITY

PROFITABILITY

Return on Assets (ROA) – Net income divided by average total assets, calculated relative to the regional median stock level.

Delta Turnover – Net sales revenue divided by average total assets, calculated relative to the regional median stock level.

Accruals – Net operating assets (NOA) for the most recent reporting period minus NOA from the previous reporting period, as calculated with following formula: Change in working capital + change in non-current net operating assets + change in net financial assets ([short-term investments + long-term investments] – [long-term debt + short-term debt + preferred stock]), divided by average total assets. Calculated relative to the regional median stock level.

LEVERAGE

Leverage Ratio – Operating cash flow divided by total debt. A company whose net operating cash flow is greater than total debt or has no debt is assigned a maximum Leverage Ratio of one.

VOLATILITY (LOW): Standard deviation of five years of weekly local total returns prior to the rebalance month. A minimum of 52 weekly return observations are required to calculate volatility.

YIELD

Dividend Yield 12M – Calculated as the natural logarithm of each company’s 12-month trailing dividend yield.



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