

# Equity Factor Insights

QUARTERLY REPORT | OCTOBER 2024

## Size shines as Momentum lags in Q3

### (Small) Size rebounded to outperform

Size strongly outperformed the benchmark and led Q3 factor performance in 5 of 6 regions, in a shift from its broad-based underperformance over 12 months.

### Momentum and Quality lagged the most

As the equity rally broadened over Q3, Momentum was the worst-performing factor in 4 of 6 regions, while Quality lagged the most in the UK and Europe.

### Tech exposure hurt Momentum and benefited Size

In many regions, Tech exposure hurt Momentum and benefited Size, Value and Yield as the Tech industry lagged others in Q3 performance. Selection within industries tended to favor smaller stocks (except in Emerging Markets).

### Many factors rerated in Q3

Many factors rerated in Q3 in terms of their absolute forward P/Es, in line with a general expansion in P/Es over the last two years.

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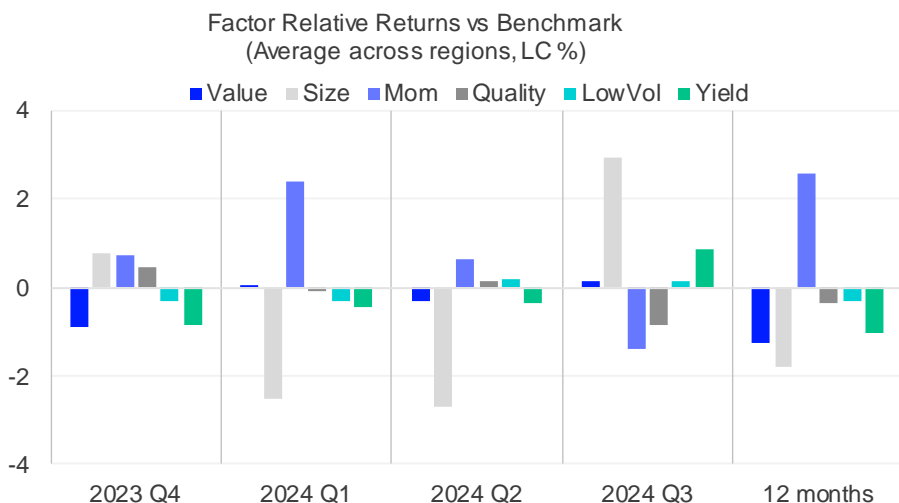
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## Regional Factor Performance Highlights



### Select Regional Relative Returns, 3M (%)

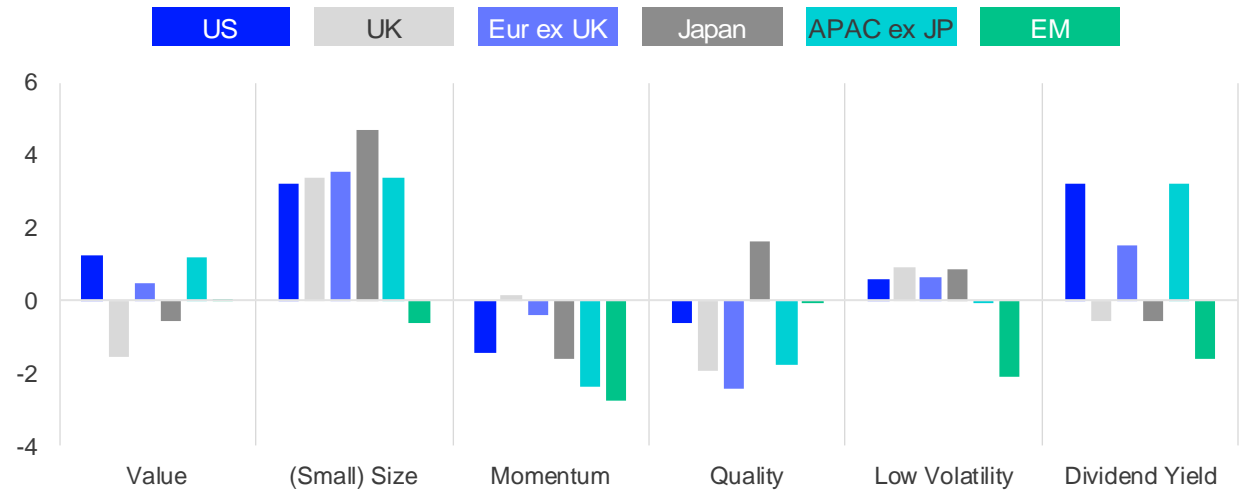
<b>+3.2%</b> US Size	<b>+3.5%</b> Europe ex UK Size
<b>-1.4%</b> US Momentum	<b>-2.4%</b> Europe ex UK Quality
<b>+3.4%</b> UK Size	<b>+4.7%</b> Japan Size
<b>-1.9%</b> UK Quality	<b>-1.6%</b> Japan Momentum

Source: FTSE Russell and LSEG. All data as of September 30, 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

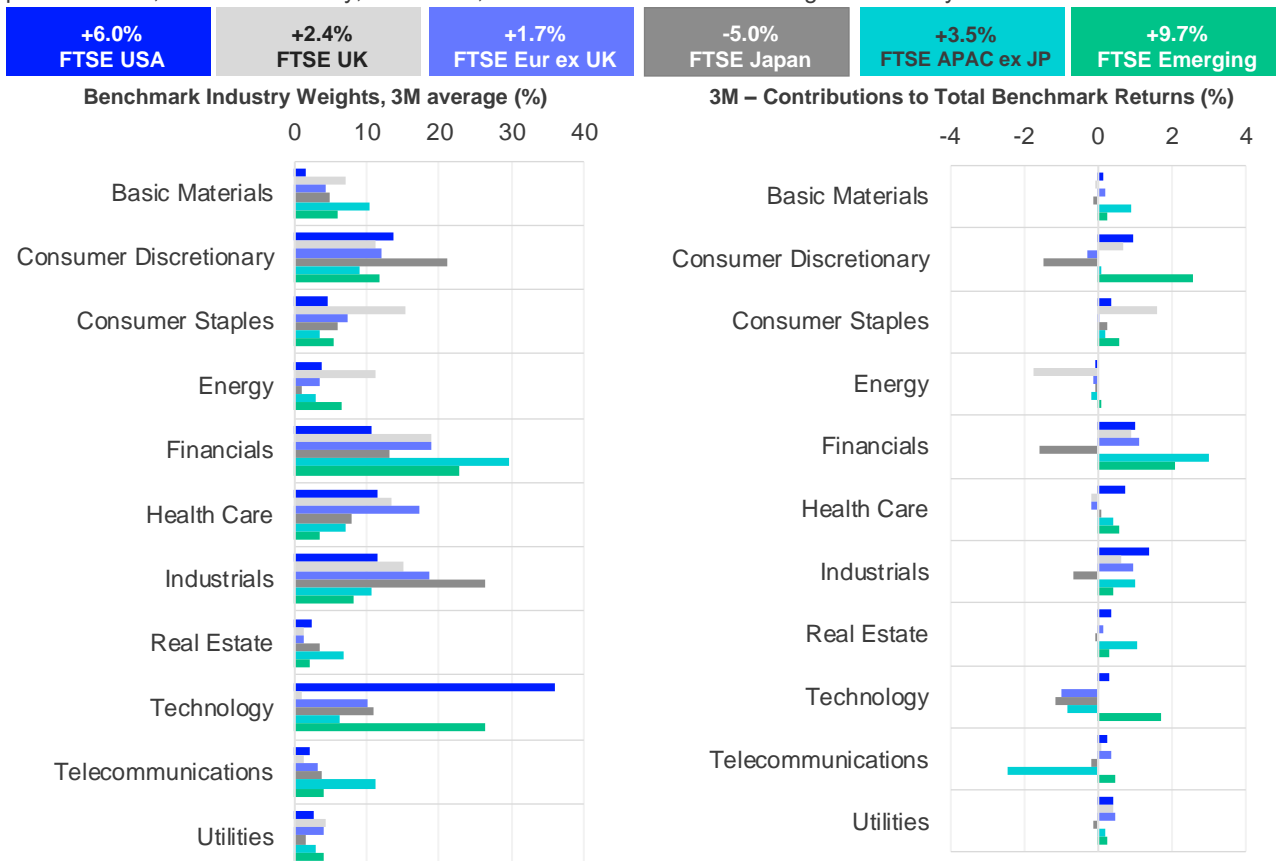
In Q3 2024, amid a broadening and volatile global equity rally, Momentum underperformed the benchmark in most regions, just as (Small) Size outperformed in 5 of 6 regions. This was a reversal from Q2 and 12M trends, which had seen larger equities shine in a momentum-driven market. Performance was mixed for other factors. Value and Yield outperformed in the US, Europe and Asia Pacific. Low Vol led in 4 of 6 regions, notably underperforming in Emerging. Quality underperformed except in Japan.

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



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

The Emerging index outpaced peers in Q3 in local currency terms, helped by strong contributions from Tech and Financials, its two largest industries. It was followed by the US where Tech's contribution to returns was muted. Japan posted losses, with Discretionary, Financials, Tech and Industrials detracting substantially from the index's returns.

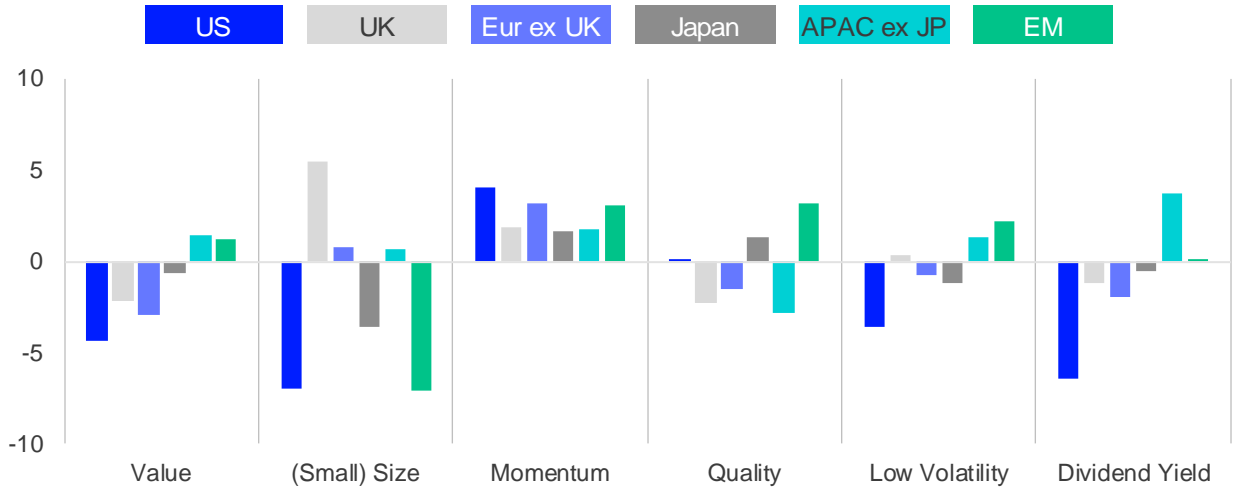


Source: FTSE Russell and LSEG. All data as of September 30, 2024. Past performance is no guarantee of future results.

# Global View – Factor and Benchmark Performance Highlights, 12M

Over 12M, Momentum outperformed in all regions, despite the factor lagging in Q3. Value and Yield underperformed in the US, UK, Europe and Japan, lagging the most in the US, which may reflect the dominance of more expensive low-dividend yielding stocks in the US index. (Small) Size notably lagged the benchmark in the US, Japan and Emerging, and outperformed in the UK. Quality and Low Vol's performance was mixed across regions. In particular, US Low Vol lagged, while Emerging Quality beat its benchmark the most among regions.

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



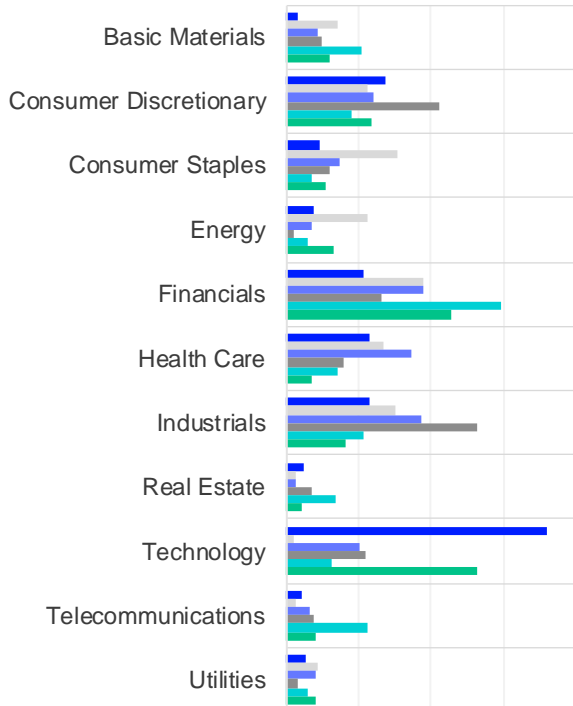
**Regional Equity Market Returns – 12M (TR, LC %) – the US and Emerging lead**

US equities led performance over 12 months, followed by the Emerging index. Both indices benefited greatly from the Tech industry's contribution to returns. Europe, Japan, Asia Pacific and the UK posted comparable gains in local currency. Cyclical led contributions over 12 months, while Health Care pitched in the most among defensives.



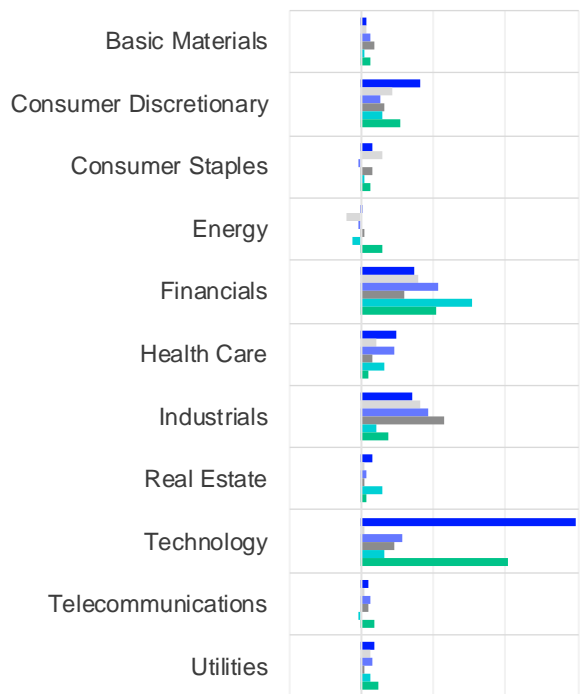
**Benchmark Industry Weights, 3M average (%)**

0 10 20 30 40



**12M – Contributions to Total Benchmark Returns (%)**

-5 0 5 10 15

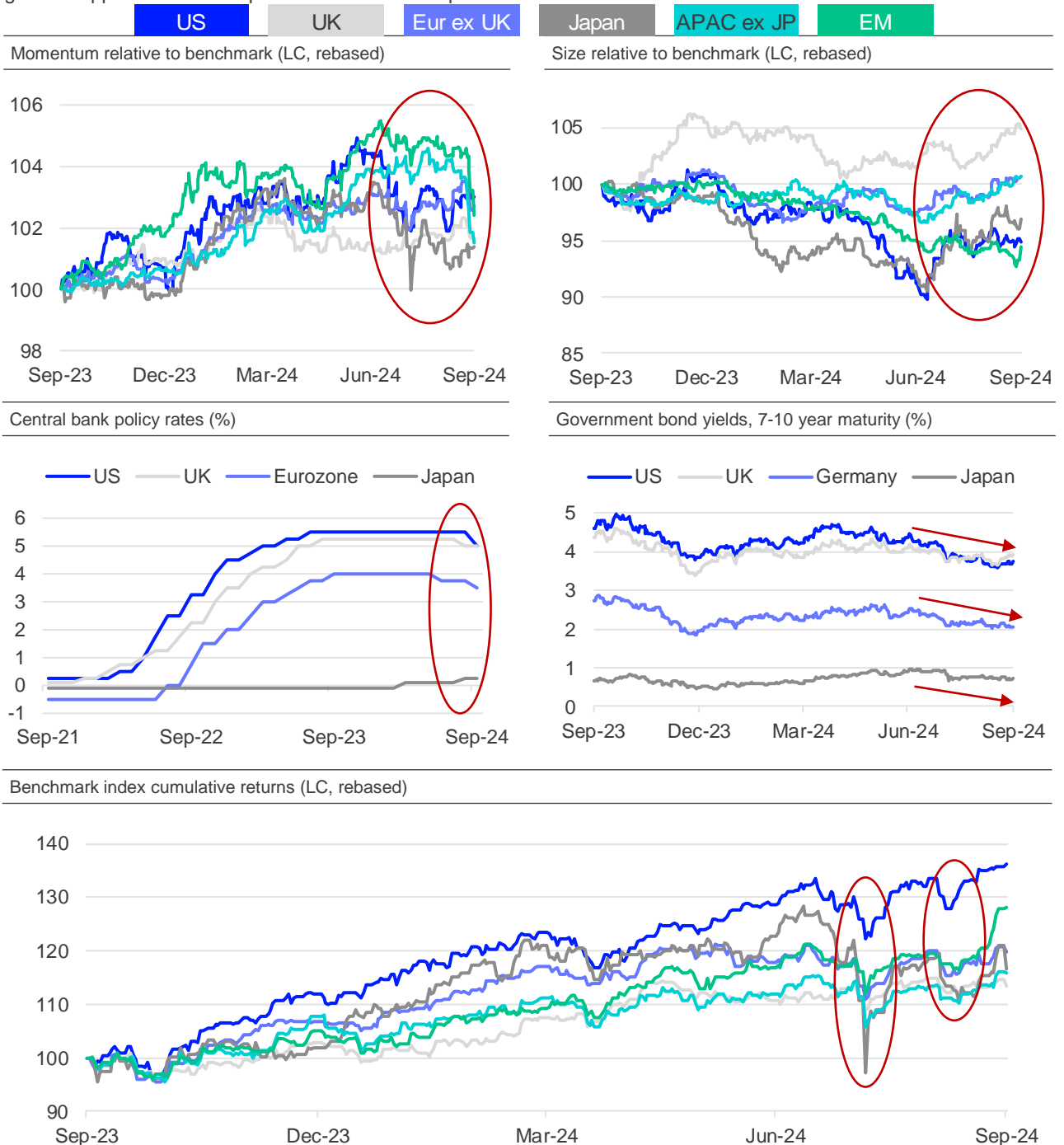


Source: FTSE Russell and LSEG. All data as of September 30, 2024. Past performance is no guarantee of future results.

# Global View – Factor rotation

Momentum's relative performance moderated sharply in Q3, in contrast to its 12-month run, suggesting that key markets were no longer momentum-driven. Another indication of this shift is (Small) Size's strong outperformance of the benchmark index in most markets after lagging over the last two quarters.

A key macro development in Q3 was the Fed initiating monetary easing in the US with a hefty 50 bp cut, and several other central banks cutting policy rates for the second or third time. Japan was an exception and raised its policy rate to 25 bps in July, in a move that sparked volatility in currency and equity markets. But the overall environment of disinflation and easing policy rates supported declining long yields in many major markets. From a growth standpoint, despite concerns in the US about certain labor market indicators, Q2 GDP growth remained resilient. The UK, Japan and China also saw GDP growth in Q2, and the Eurozone managed to expand despite a contraction in Germany. The gathering pace of monetary easing, declining yields and easing liquidity conditions indicated a shift in the macro environment for risk assets contributing to Momentum's underperformance. This shift combined with resilient global growth supported Size's outperformance over the quarter.

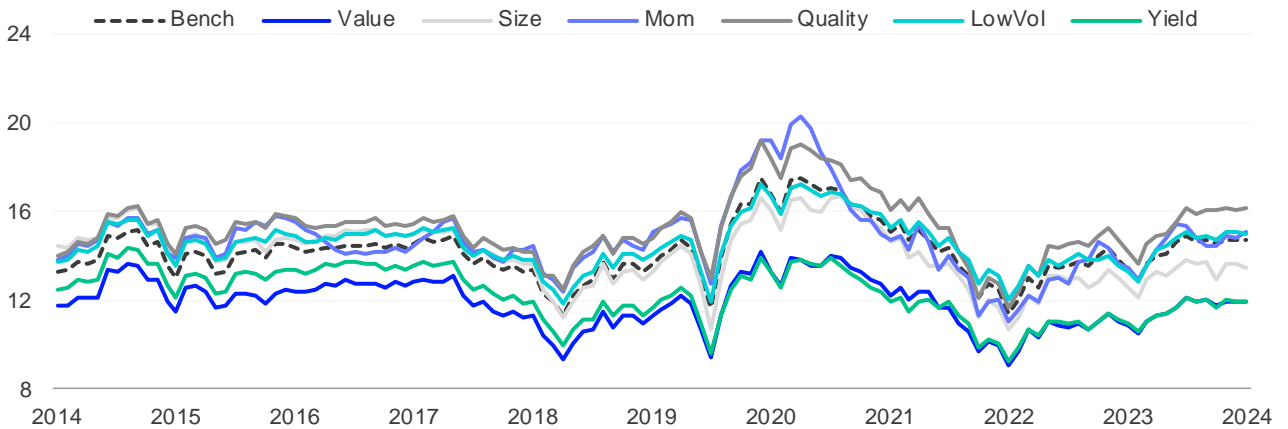


Source: FTSE Russell and LSEG. All data as of September 30, 2024. Past performance is no guarantee of future results.

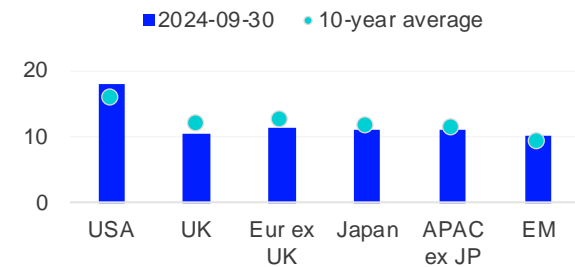
# Global View – Factor Valuations

Average forward factor P/E's rerated over Q3 after moderating slightly in Q2. Most US and Emerging factors traded above their 10-year averages at quarter-end. Yield in Asia Pacific was also valued above its long-term average. US factors continue to trade at a premium to those in other regions.

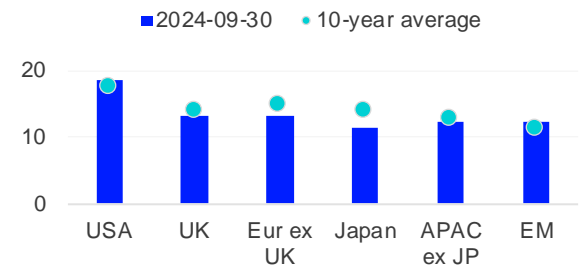
12-month forward factor P/E ratios, average of six regions



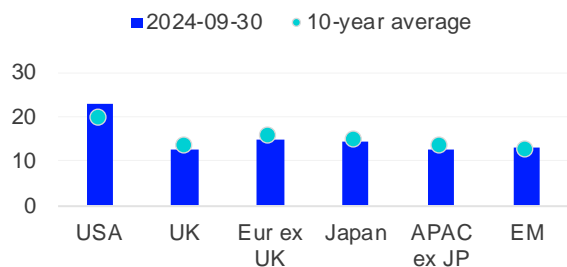
Value - 12M forward P/E



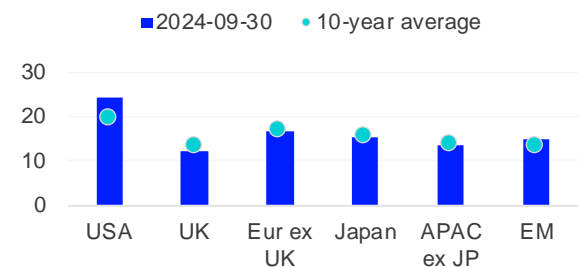
Size - 12M forward P/E



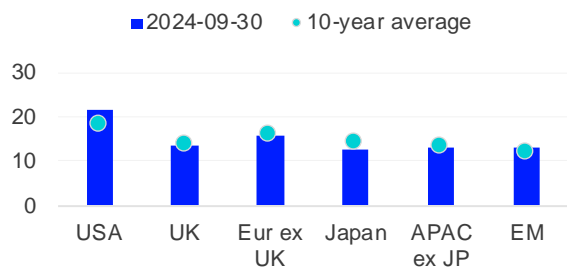
Momentum - 12M forward P/E



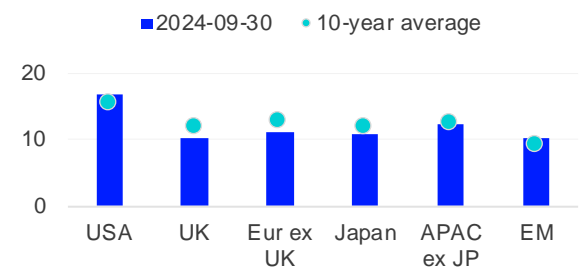
Quality - 12M forward PE



Low Volatility - 12M forward PE



Yield - 12M forward PE



Source: FTSE Russell and LSEG. All data as of September 30, 2024. Past performance is no guarantee of future results.

# US Equity Factor Insights

THIRD QUARTER | 2024

## Key Observations

- In Q3, Size and Yield led factor relative performance. Momentum and Quality lagged the benchmark.
- Size and Yield benefited from their underweight to Technology, which substantially underperformed the US index, just as Momentum and Quality were hurt by their overweight.
- Over 12M, Momentum and Quality still outperformed the benchmark, while Size and Yield lagged the most, notwithstanding their Q3 performance.
- Factor forward P/Es rerated in Q3. Absolute 12M forward P/Es were above their 10-year averages 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 September 30, 2024. Past performance is no guarantee of future results.

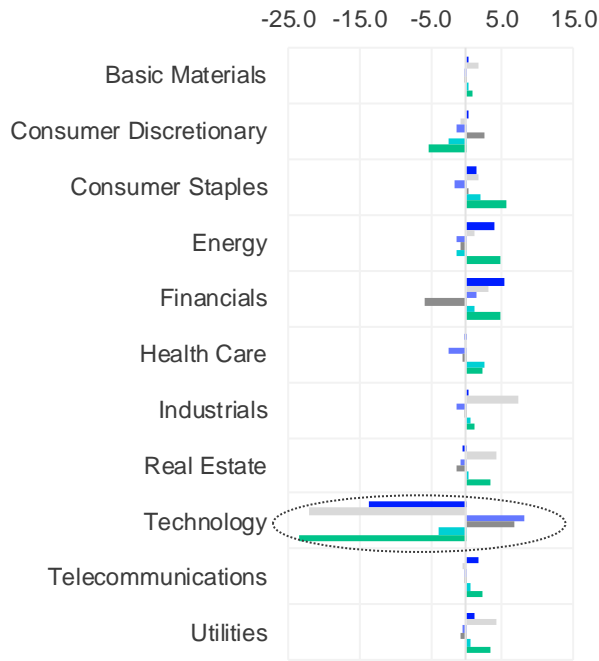
# US Factor Performance & Industry Attributions — 3M

## Tech exposure hurts Momentum and Quality

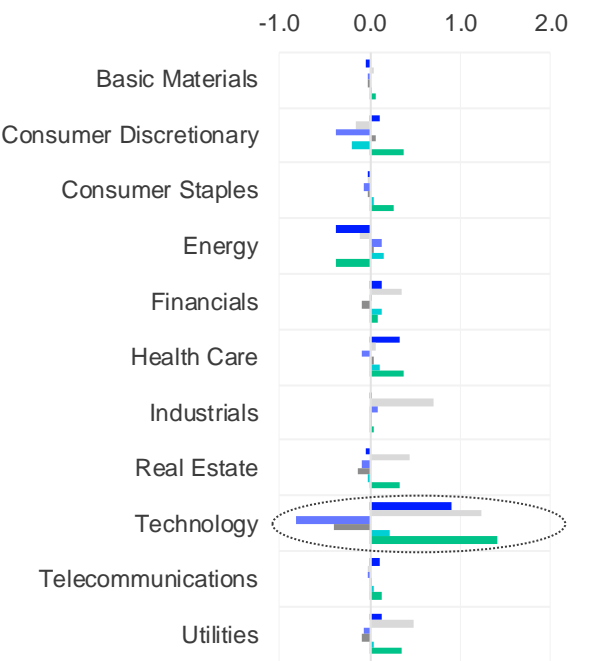
Momentum and Quality underperformed as the US tech rally stalled. Momentum had large negative selection effects within Tech and Discretionary. Size and Yield outpaced the benchmark, helped primarily by underweights to Tech, but also by allocation effects from Industrials, Real Estate and Utilities, and by selection effects within Discretionary (for Yield), Health Care and Tech. However, their Energy overweight hurt both Value and Yield.

2024 Q3	Relative to Benchmark (TR %)					
FTSE USA	Value	Size	Mom	Quality	Low Vol	Yield
6.0%	1.3	3.2	-1.4	-0.6	0.6	3.2

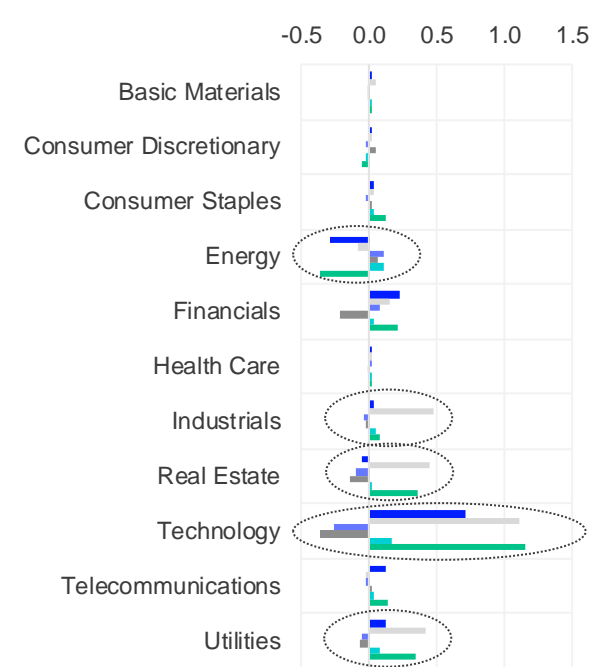
Industry active weights, 3M average



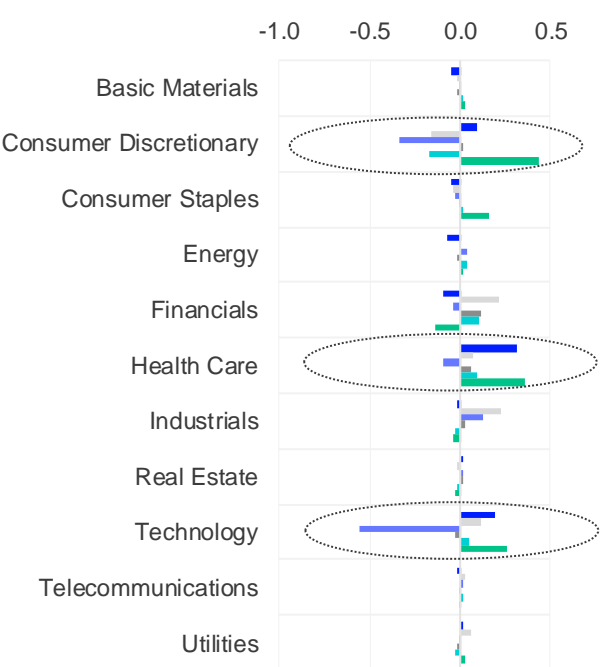
Total industry effects, 3M



Industry allocation effects, 3M



Stock selection within industry, 3M



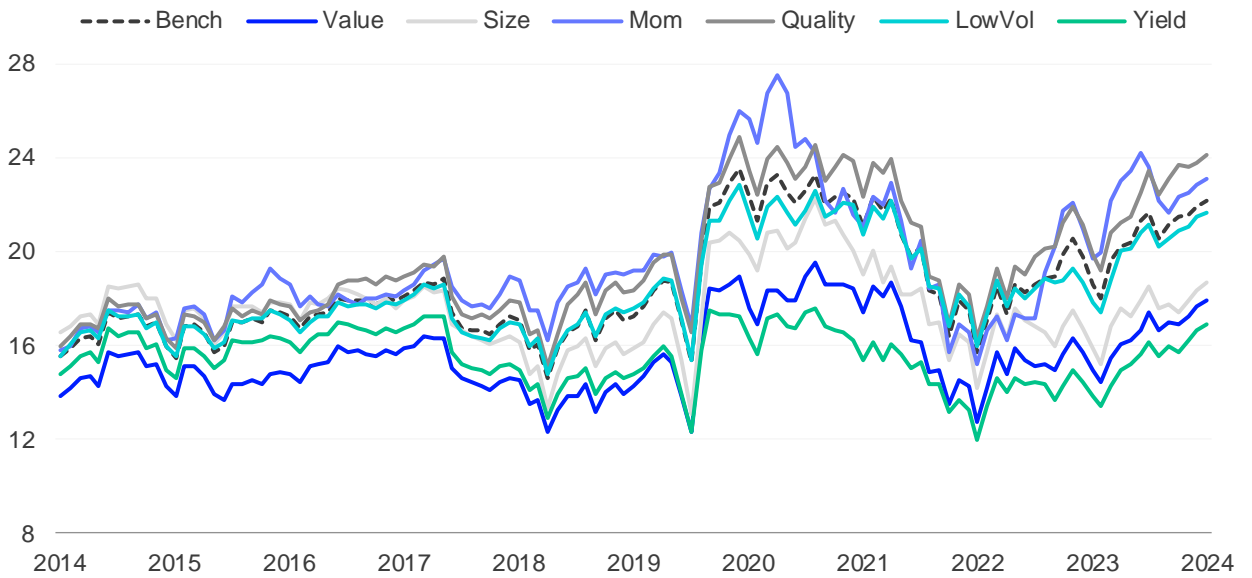
Source: FTSE Russell and LSEG. All data as of September 30, 2024. Past performance is no guarantee of future results.

# US Factor Valuations

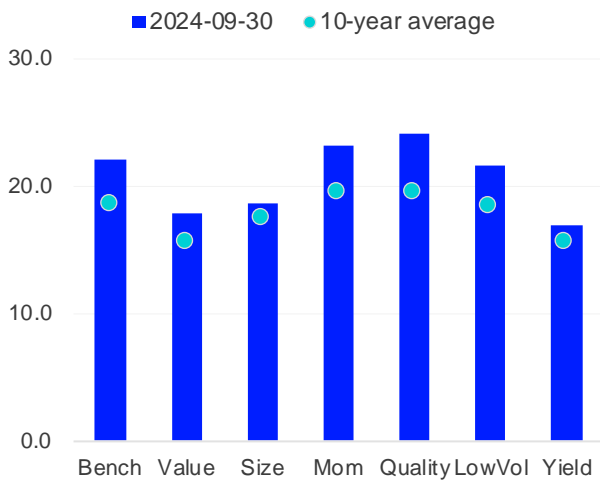
US factor forward P/E's re-rated sharply in Q3 after moderating slightly in Q2. Absolute 12M factor forward P/E's are higher than their 10-year averages for all US factors, including for Size after its Q3 performance. Quality traded at the largest premium to its long-term average compared to other factors, and at a 35% premium to Value, higher than the 10-year average Quality-Value premium of 25%. Momentum was the second most expensive relative to its historical average.

In relative terms, Quality was the sole factor to trade above its 10-year average forward P/E, while Size continued to trade at the largest discount despite its Q3 outperformance.

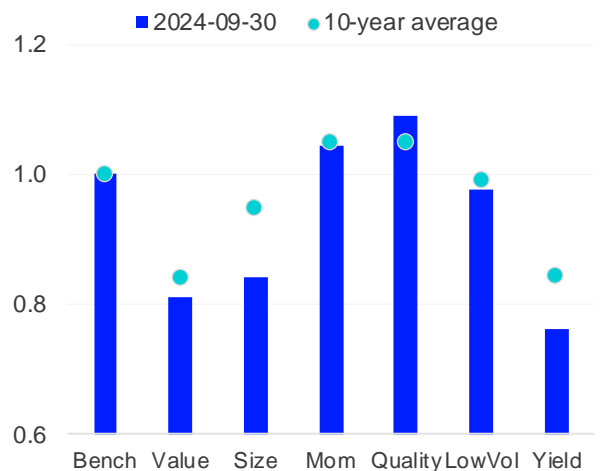
FTSE USA – Absolute 12M forward P/E's



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 September 30, 2024. Past performance is no guarantee of future results.



# UK Equity Factor Insights

THIRD QUARTER | 2024

## Key Observations

- In Q3, Size led factor performance in a reversal from Q2. Quality and Value lagged the most.
- Allocation to Energy had a large impact on factor relative performance, given its steep underperformance of the benchmark.
- Over 12M, Size outpaced other factors, while Value and Quality lagged the benchmark the most.
- Factor forward P/Es rerated across the board in Q3. Absolute 12M forward P/Es were still below their historical averages.
- In relative terms, all factors traded below their long-term averages. Low Vol was the most expensive.

Factor returns relative to benchmark (rebased)



Source: FTSE Russell and LSEG. All data as of September 30, 2024. Past performance is no guarantee of future results.

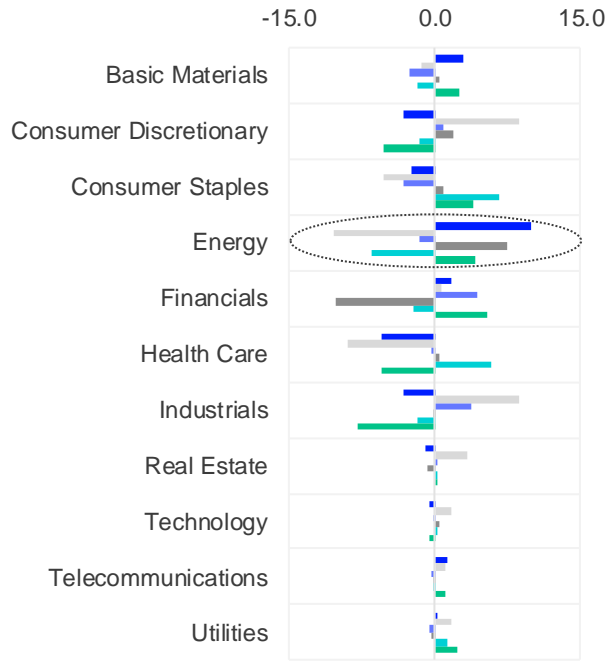
# UK Factor Performance & Industry Attribution — 3M

## Size leads, Quality lags most

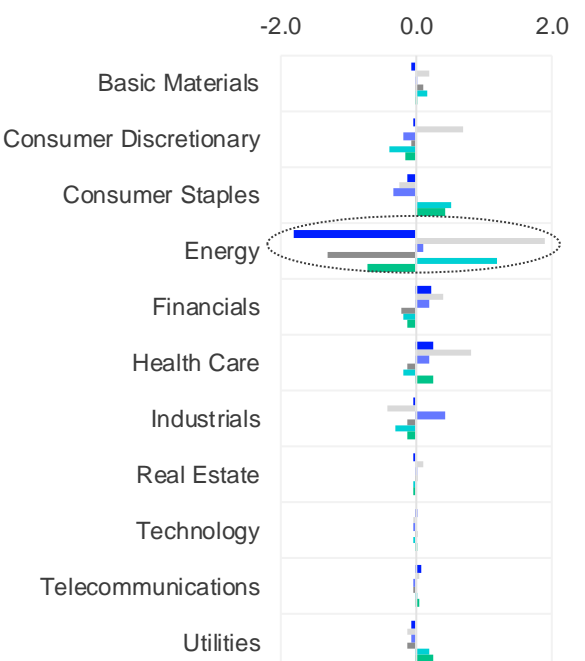
Size rebounded from its Q2 underperformance to lead factor performance in Q3. Quality, Value and Yield lagged, while Momentum and Low Vol performed slightly better than the benchmark. Allocation effects from Energy, which steeply underperformed the benchmark, had a large impact on most factor performance. In addition, Size benefited from positive selection within Discretionary, Health Care and Financials.

2024 Q3	Relative to Benchmark (TR %)					
FTSE UK	Value	Size	Mom	Quality	Low Vol	Yield
2.4%	-1.6	3.4	0.1	-1.9	0.9	-0.5

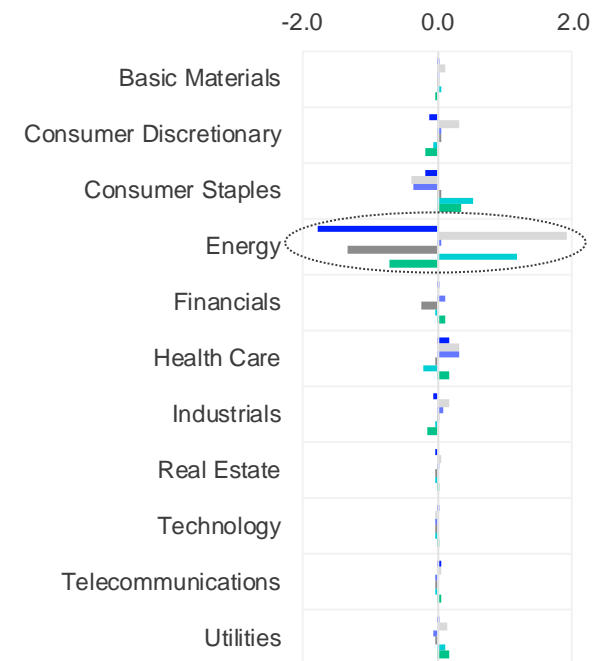
Industry active weights, 3M average



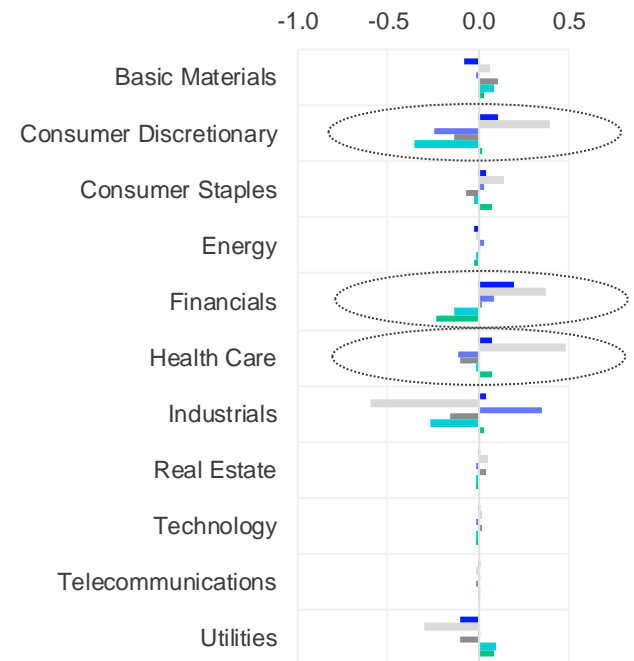
Total industry effects, 3M



Industry allocation effects, 3M



Stock selection within industry, 3M



Source: FTSE Russell and LSEG. All data as of September 30, 2024. Past performance is no guarantee of future results.

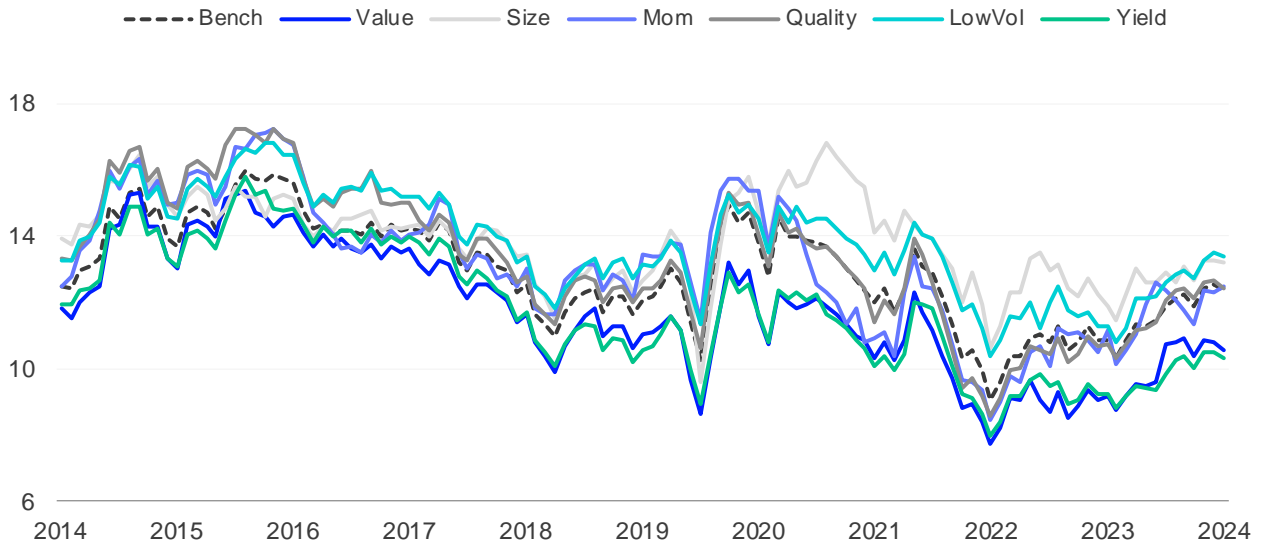
# UK Factor Valuations

UK factor forward P/Es rerated across the board in Q3, as they have over the last two years. They still remain well below their 10-year averages in absolute terms. Value and Yield trade at the largest discount to their historical averages. The Quality-Value premium is at 18%, above the 10-year average premium of 13%.

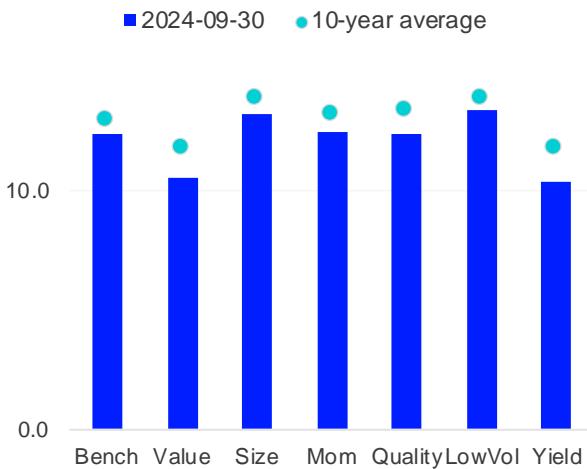
In relative terms, again, Value and Yield traded well below their long-term averages, while Momentum and Low Vol's relative forward P/Es were just slightly below their 10-year averages.

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

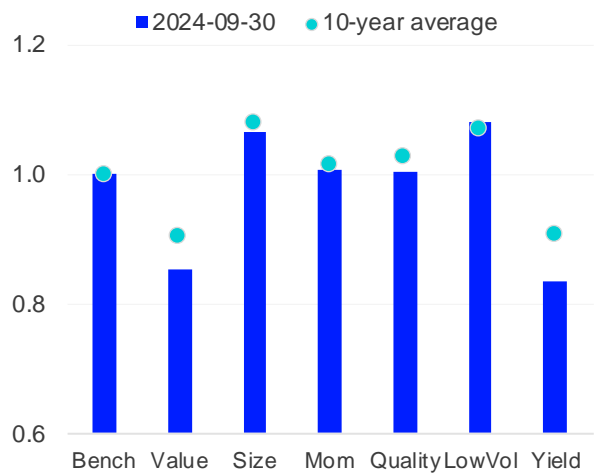
FTSE UK – Absolute 12M forward P/Es



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 September 30, 2024. Past performance is no guarantee of future results.

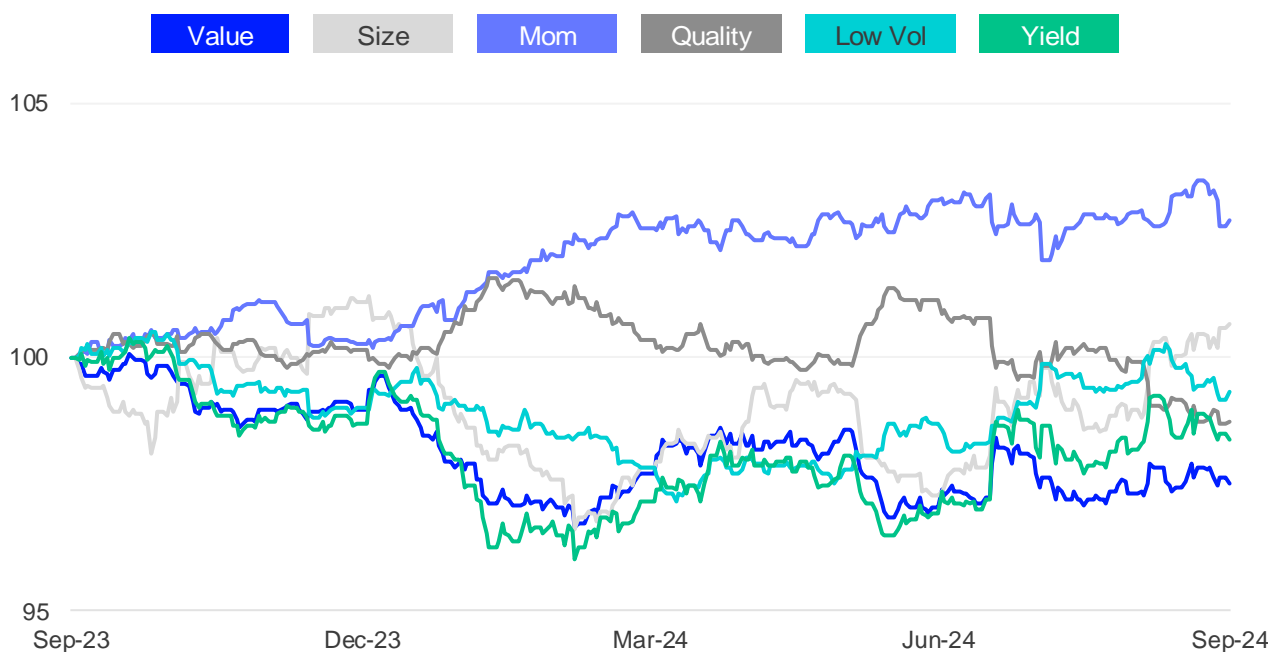
# Europe ex UK Equity Factor Insights

THIRD QUARTER | 2024

## Key Observations

- In Q3, Size outpaced the benchmark followed by Yield, while Momentum and Quality lagged the most in a reversal from the previous two quarters.
- Size and Yield were helped by their underweight to Tech and positive selection within Health Care.
- Over 12M, Momentum continued to outpace other factors on relative performance, notwithstanding its Q3 underperformance. Value lagged the benchmark the most.
- Factor forward P/Es rerated in Q3, except for Quality which derated. At quarter-end, all factors still traded below their 10-year average P/Es in absolute terms.
- In relative terms, Quality, Low Vol and Momentum remained the most expensive and traded above their 10-year average P/Es.

Factor returns relative to benchmark (rebased)



Source: FTSE Russell and LSEG. All data as of September 30, 2024. Past performance is no guarantee of future results.

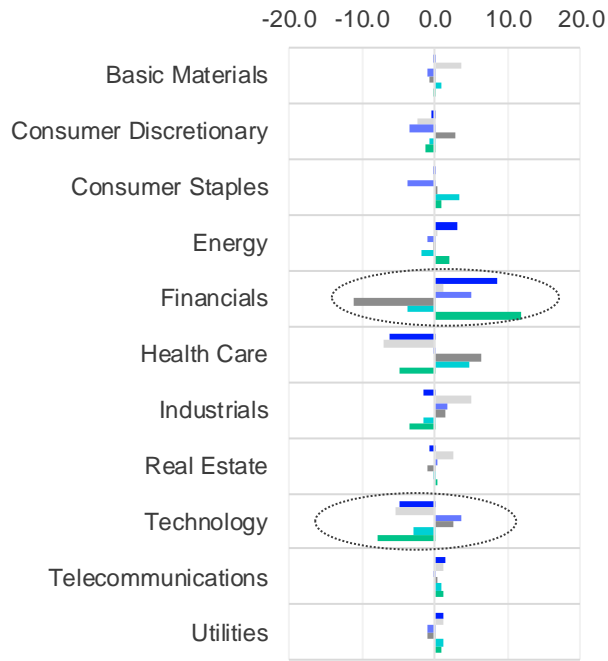
# Europe ex UK Factor Performance & Industry Attribution — 3M

## Size on top, Quality lags most

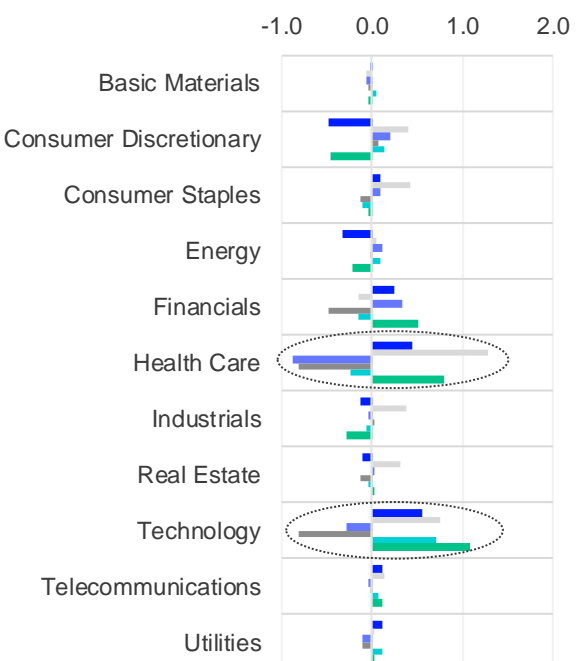
Size outpaced the benchmark in Q3 as Yield, Low Vol and Value also outperformed. Quality lagged the most, followed by Momentum. Size and Yield were helped by strong positive allocation effects from Tech and positive selection within Health Care. Yield also benefited from its overweight to Financials. Quality was hurt most by negative selection and allocation effects within Health Care and Tech.

2024 Q3	Relative to Benchmark (TR %)					
FTSE Dev Europe ex UK	Value	Size	Mom	Quality	Low Vol	Yield
1.7%	0.5	3.5	-0.4	-2.4	0.7	1.5

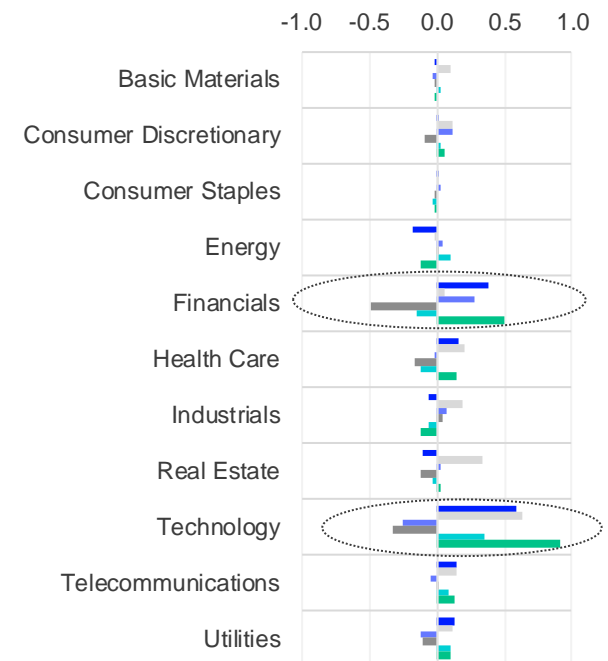
Industry active weights, 3M average



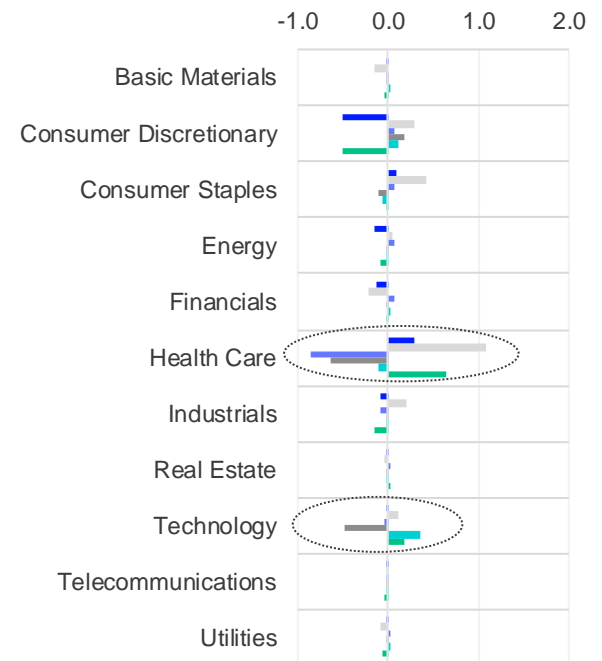
Total industry effects, 3M



Industry allocation effects, 3M



Stock selection within industry, 3M



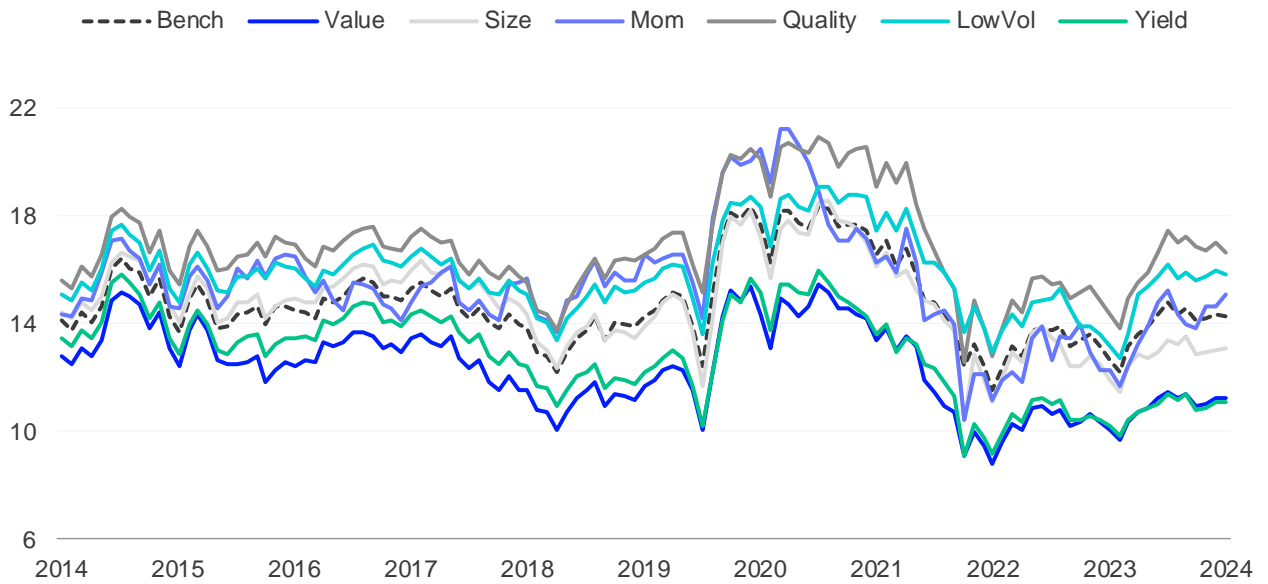
Source: FTSE Russell and LSEG. All data as of September 30, 2024. Past performance is no guarantee of future results.

# Europe ex UK Factor Valuations

Factor forward P/Es in Europe rerated in Q3, except for Quality, which derated slightly over the quarter. Even with the Q3 performance, absolute forward P/Es for all factors were below their 10-year average P/Es at quarter-end. Quality's premium over Value declined slightly to 48% but was still higher than the historical premium of 36%.

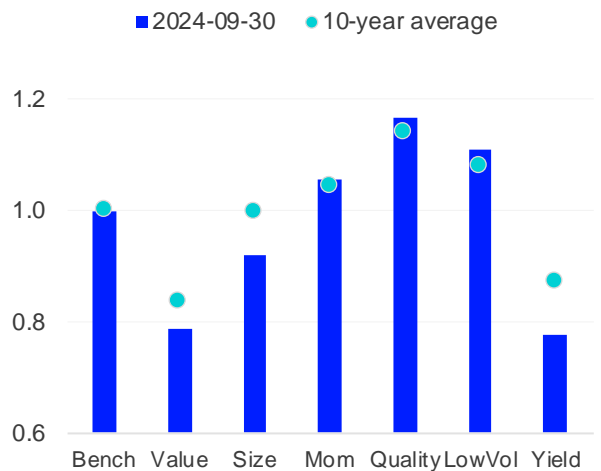
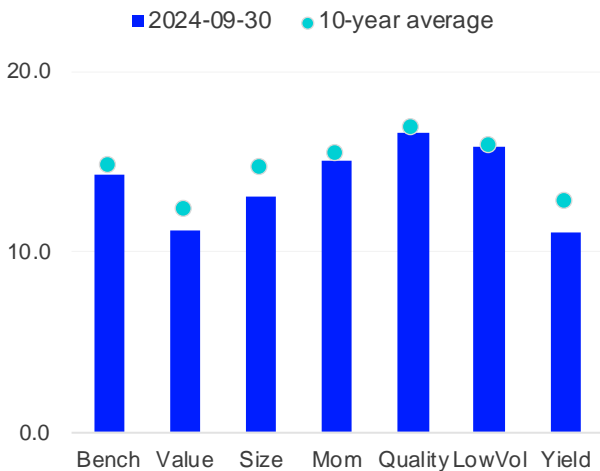
In relative terms, Quality, Low Vol and Momentum remained the most expensive and traded above their 10-year average P/Es, while other factors traded below their historical averages.

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 September 30, 2024. Past performance is no guarantee of future results.

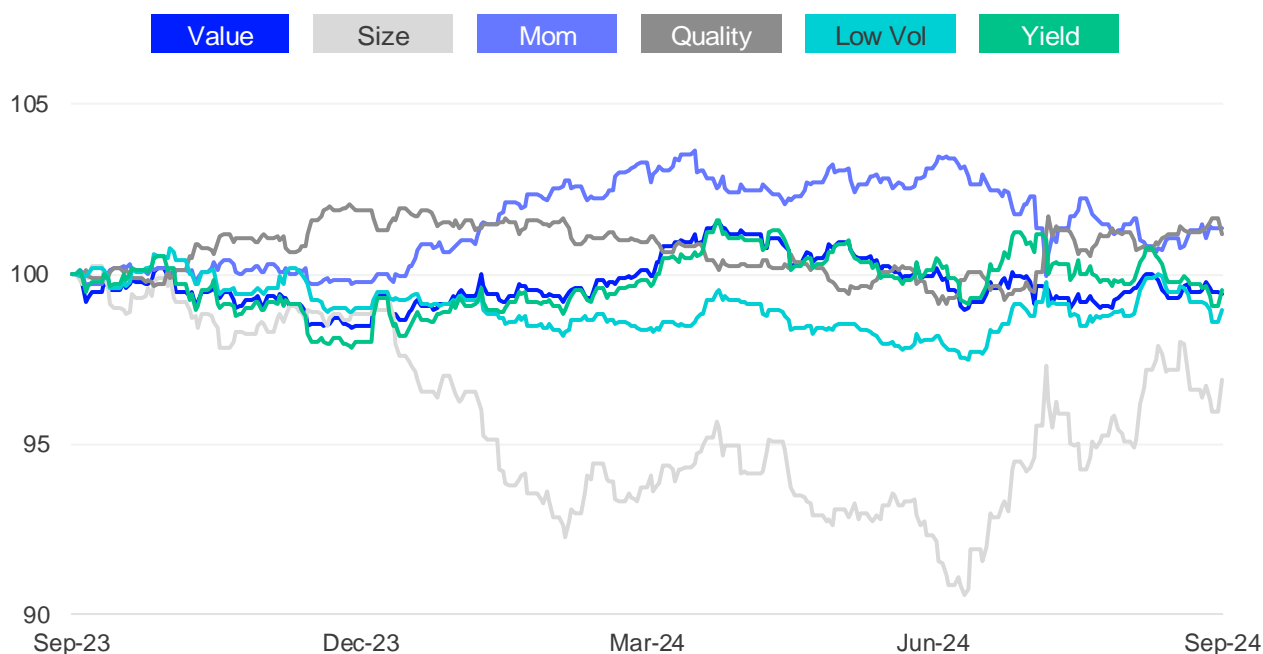
# Japan Equity Factor Insights

THIRD QUARTER | 2024

## Key Observations

- In Q3, Size outperformed the benchmark, in a reversal from Q2, while Momentum lagged the most.
- Size benefited from its underweight to Financials that steeply underperformed the benchmark, and positive selection within Discretionary, among others.
- Over 12M, Momentum and Quality led relative returns, while Size lagged the most despite its Q3 outperformance.
- Factor forward P/Es for most factors derated over Q3, except for Momentum and Size which expanded. The Quality-Value premium rose over the quarter relative to history.
- 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 September 30, 2024. Past performance is no guarantee of future results.

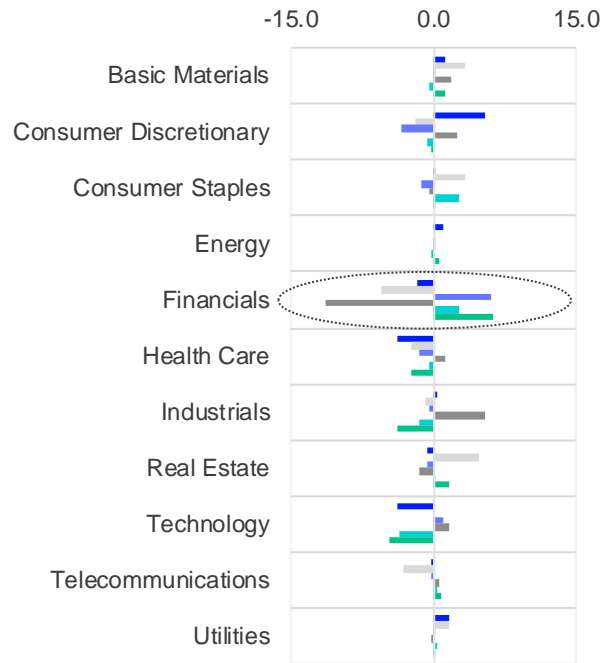
# Japan Factor Performance & Industry Attribution — 3M

## Size outpaces the benchmark

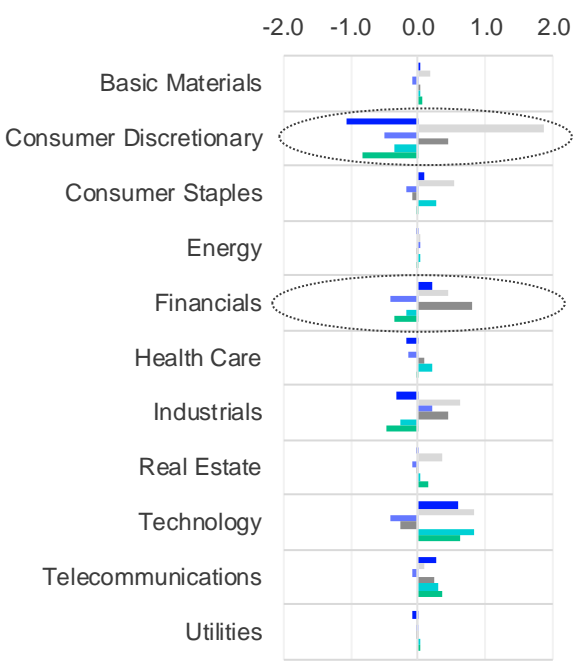
Size outpaced the benchmark after lagging badly in Q2. It benefited from positive allocation effects from Financials, Staples and Real Estate, as well as positive selection within Discretionary, Tech and Industrials. Momentum, which was the worst-performing factor, was hurt by its overweight to Financials that steeply underperformed the benchmark, and negative selection effects within Discretionary.

2024 Q3	Relative to Benchmark (TR %)					
FTSE Japan	Value	Size	Mom	Quality	Low Vol	Yield
-5.0%	-0.5	4.7	-1.6	1.6	0.9	-0.6

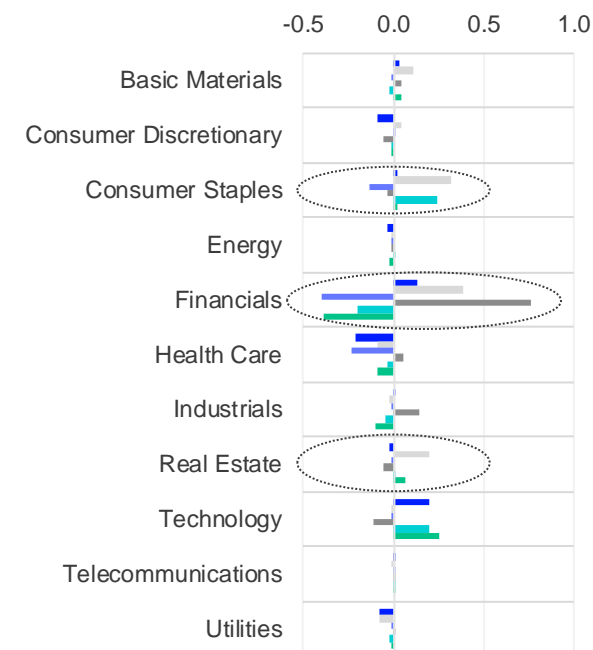
Industry active weights, 3M average



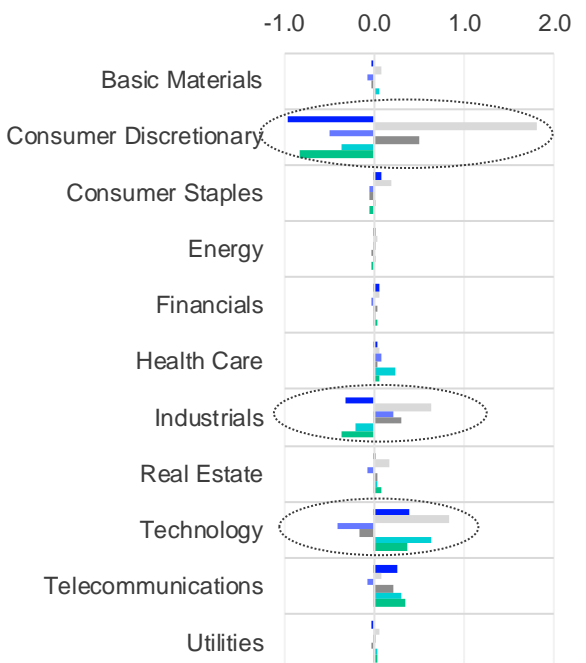
Total industry effects, 3M



Industry allocation effects, 3M



Stock selection within industry, 3M



Source: FTSE Russell and LSEG. All data as of September 30, 2024. Past performance is no guarantee of future results.

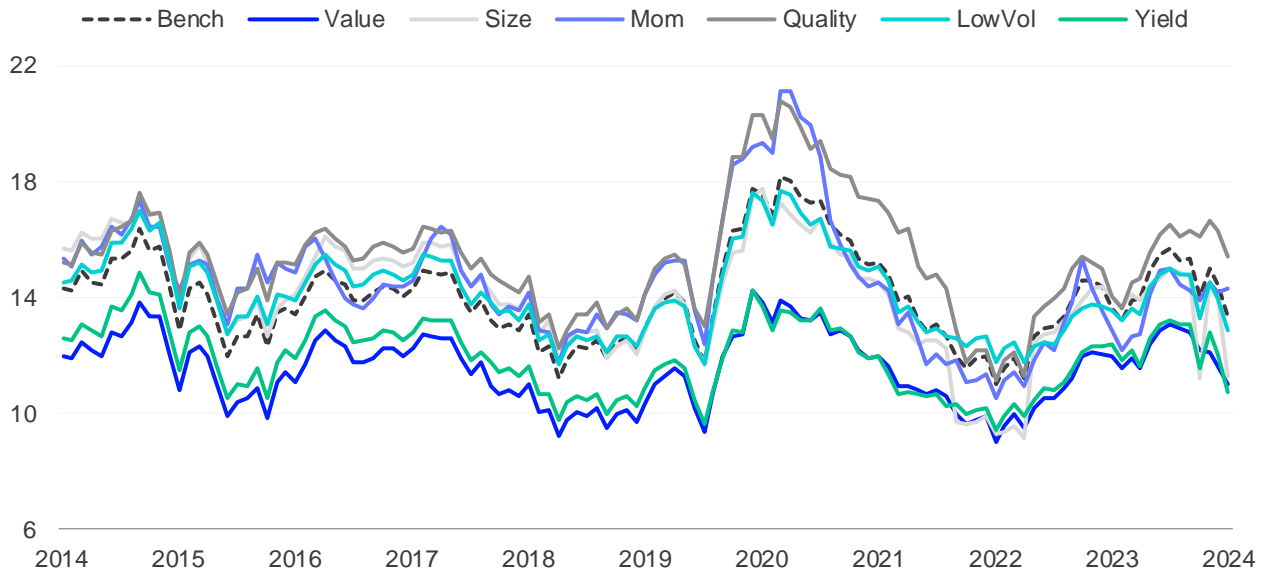


# Japan Factor Valuations

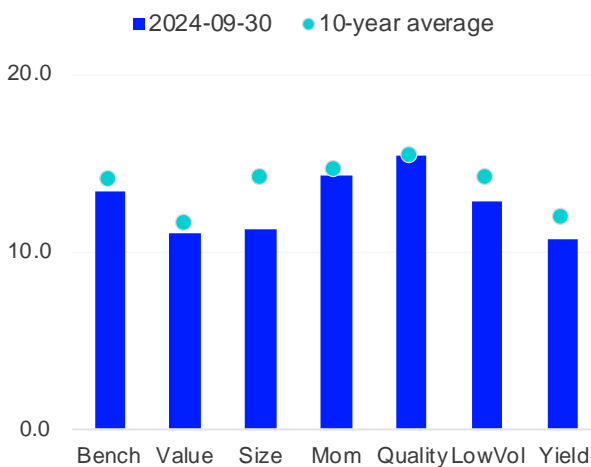
Factor forward P/Es for Momentum and Size expanded over Q3, while they contracted for other factors in Japan. At the end of Q3 absolute forward P/Es for all Japan factors were below their 10-year averages. The Quality-Value premium at 40% was higher than its historical average of 33%.

In relative terms, Quality, Momentum and Value traded above their 10-year average P/Es, while other factors traded at a discount to their historical average P/Es.

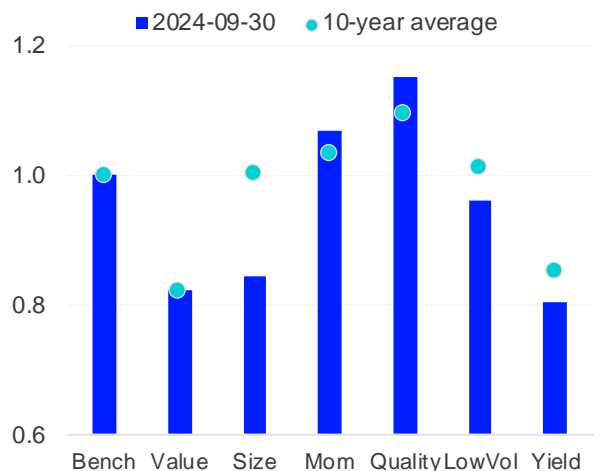
FTSE Japan – Absolute 12M forward P/Es



Current Absolute 12M P/Es vs history



Current Relative 12M P/Es vs history



Source: FTSE Russell and LSEG. All data as of September 30, 2024. Past performance is no guarantee of future results.

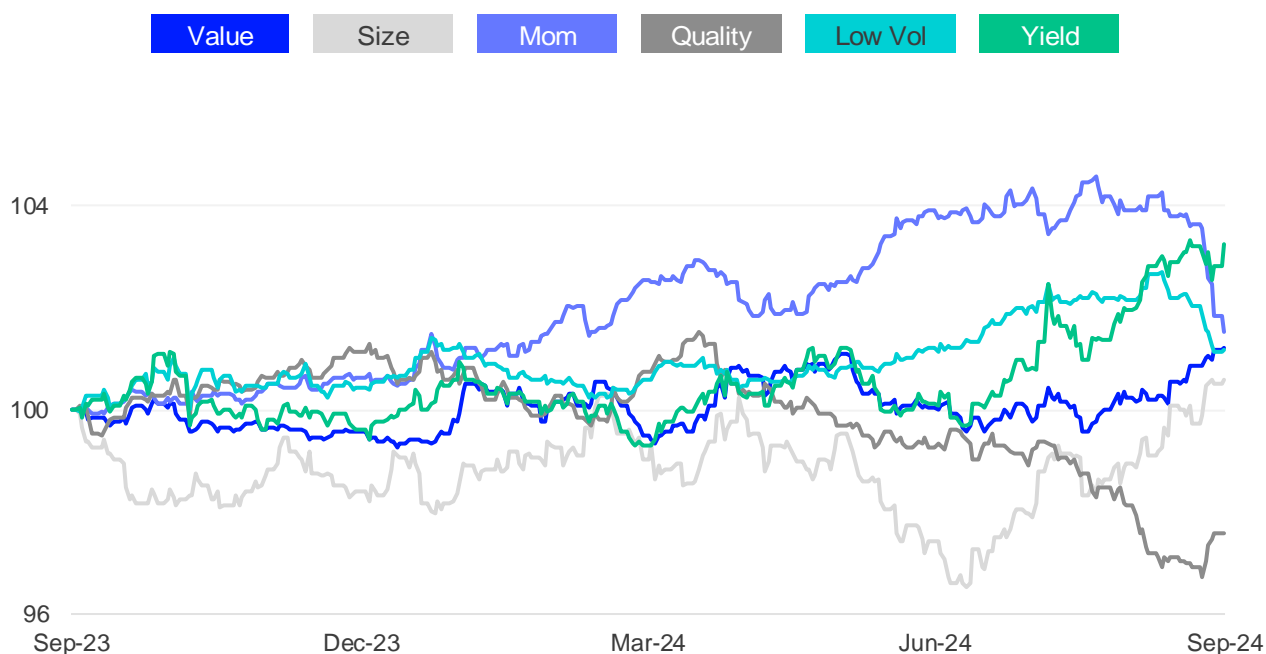
# Asia Pacific ex Japan Equity Factor Insights

THIRD QUARTER | 2024

## Key Observations

- In Q3, Size and Yield led factor relative performance, while Momentum lagged the most in a reversal from Q2.
- Large allocation effects from Telecoms and Financials, and selection effects within Financials, among others, drove factor relative performance.
- Over 12M, Yield led factor relative performance, while Quality lagged the most. Size finished fifth given its Q3 rebound.
- Factor forward P/Es expanded in Q3. Most absolute factor forward P/Es were below their long-term averages, except for Yield.
- In relative terms, Yield, Low Vol and Quality traded above their 10-year average.

Factor returns relative to benchmark (rebased)



Source: FTSE Russell and LSEG. All data as of September 30, 2024. Past performance is no guarantee of future results.

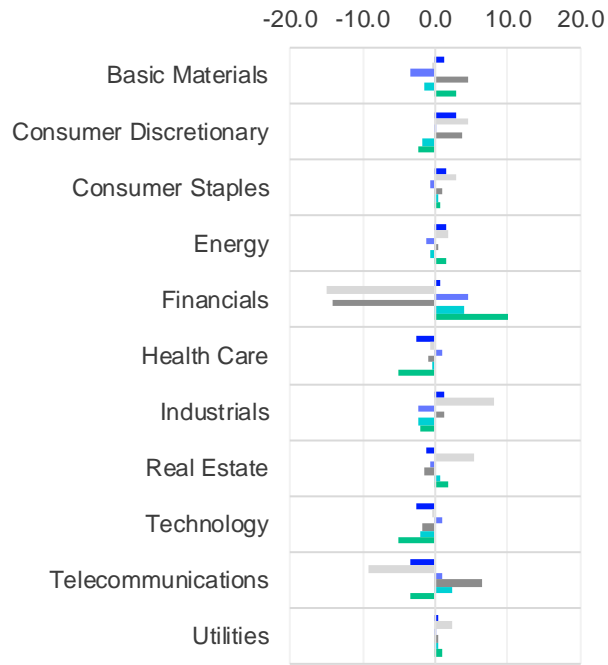
# Asia Pac ex Japan Factor Performance & Industry Attribution — 3M

## Size and Yield outperform, Momentum lags most

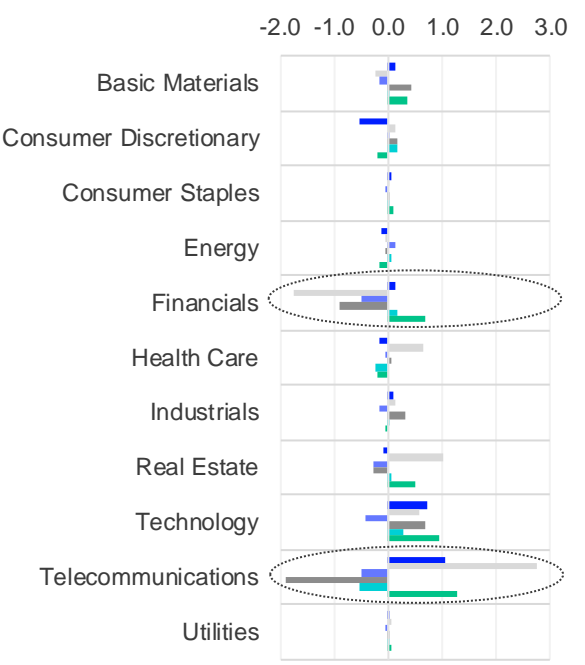
In a reversal from Q2, Momentum lagged the most. Size rebounded sharply to outperform, followed closely by Yield. Size, Yield and Value were helped by large positive allocation and selection effects within Telecoms that steeply underperformed the benchmark. Size also benefited from positive selection within Health Care, Tech and Discretionary. Momentum was hurt by a large negative selection effect within Financials.

2024 Q3	Relative to Benchmark (TR%)					
FTSE Dev Asia Pacific exJP	Value	Size	Mom	Quality	Low Vol	Yield
3.5%	1.2	3.4	-2.4	-1.8	0.0	3.2

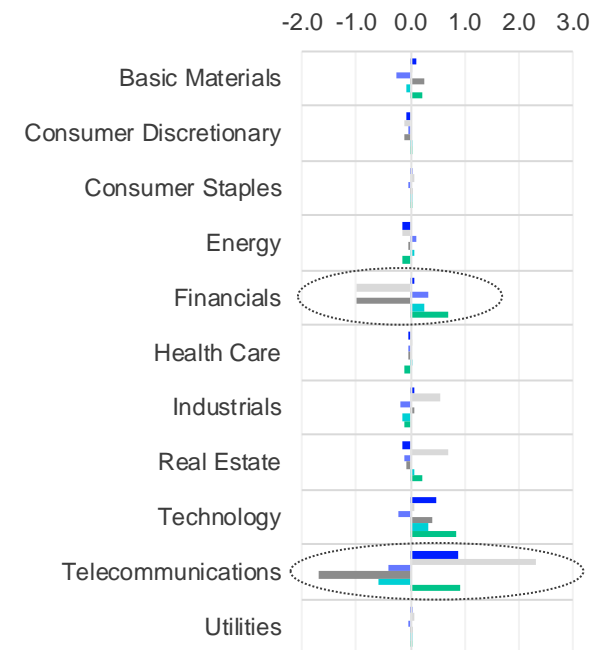
Industry active weights, 3M average



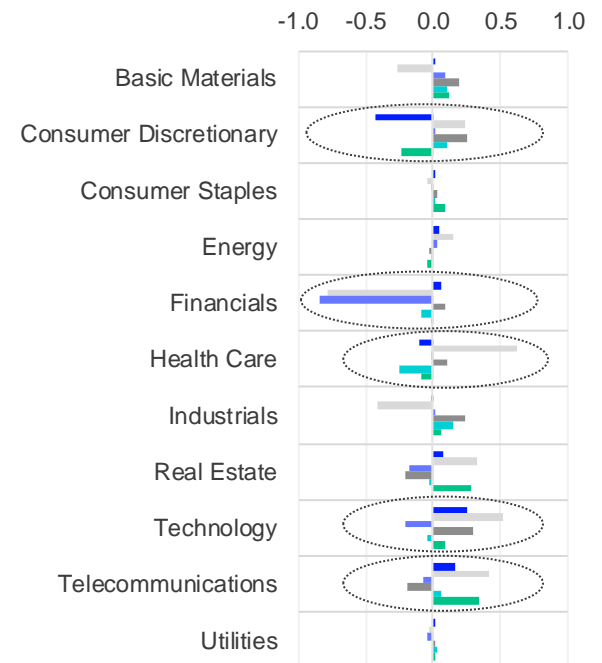
Total industry effects, 3M



Industry allocation effects, 3M



Stock selection within industry, 3M

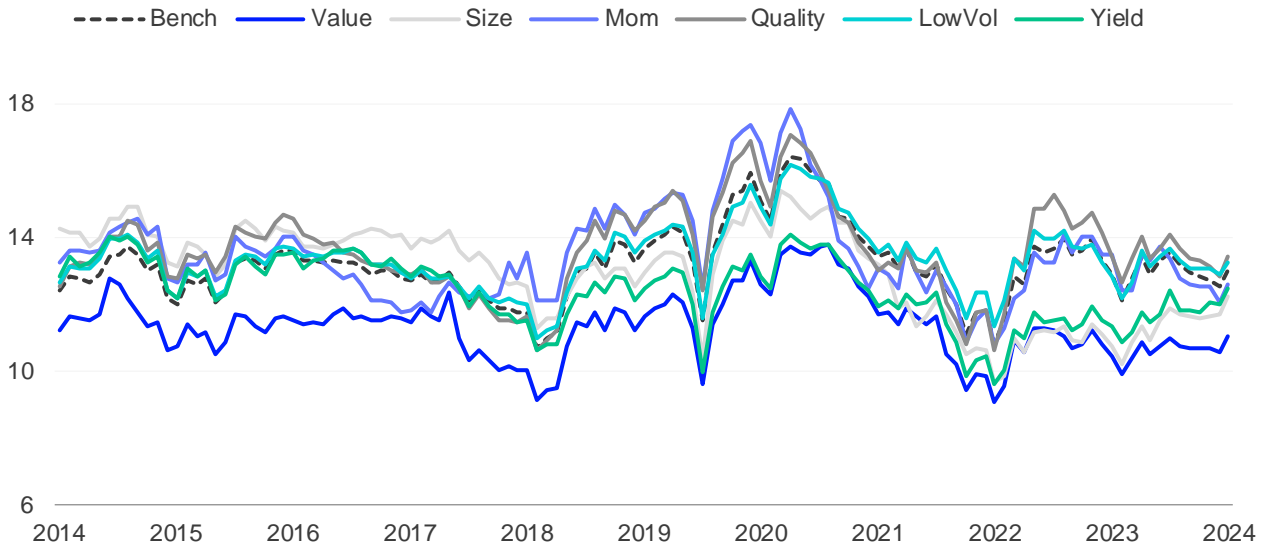


Source: FTSE Russell and LSEG. All data as of September 30, 2024. Past performance is no guarantee of future results.

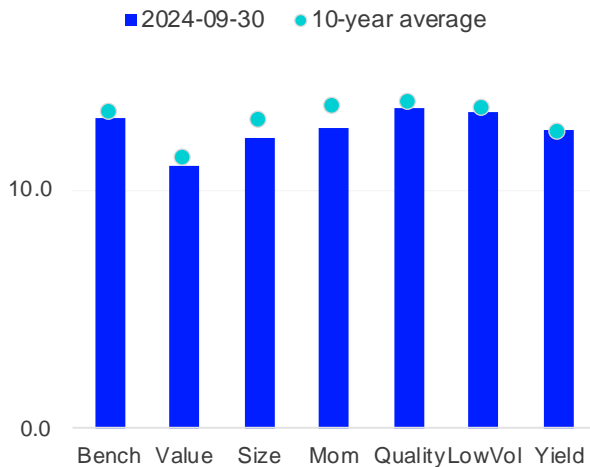
# Asia Pacific ex Japan Factor Valuations

Asia Pacific ex Japan factor forward P/E's expanded in Q3, after contracting the previous quarter. Most absolute factor forward P/E's were below their 10-year averages, except for Yield which traded slightly above its historical average. The Quality/Value premium declined further to 22% but was still above its 10-year average of 20% at quarter-end. In relative terms, Yield joined Low Vol and Quality in trading above its 10-year average.

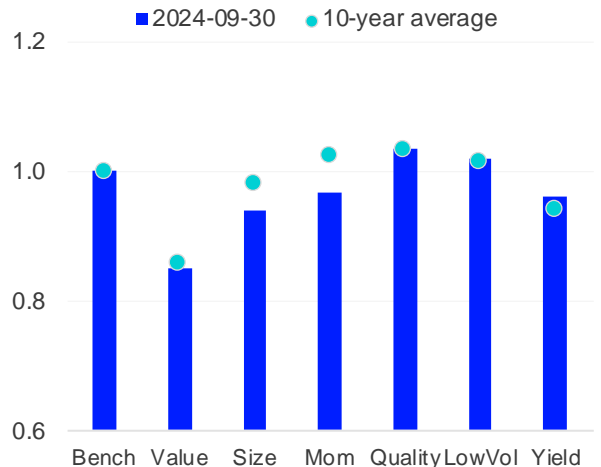
FTSE Asia Pacific ex Japan – Absolute 12M forward P/E's



Current Absolute 12M forward P/E's vs history



Current Relative 12M forward P/E's vs history



Source: FTSE Russell and LSEG. All data as of September 30, 2024. Past performance is no guarantee of future results.

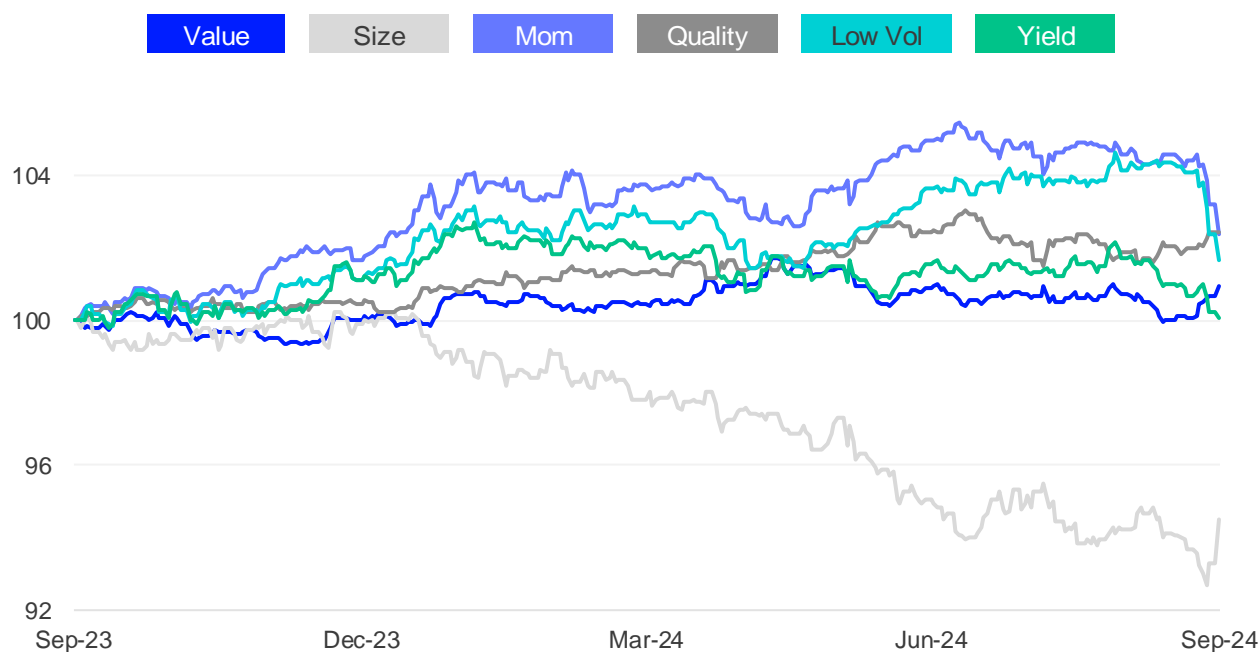
# Emerging Markets Equity Factor Insights

THIRD QUARTER | 2024

## Key Observations

- All EM factors, except Value, underperformed the benchmark in Q3. Momentum lagged the most in a reversal from Q1 and Q2.
- Allocation and selection effects within Discretionary and Tech continued to drive the bulk of EM factor relative performance.
- Over 12M, Momentum and Quality outperformed other factors, while Size lagged the most relative to the benchmark despite a late-Q3 rebound.
- All EM factor forward P/Es expanded during Q3. In absolute terms, 12M forward P/Es for all factors remained above their 10-year averages.
- In relative terms, Momentum, Size and Yield still traded at a discount to their 10-year averages.

Factor returns relative to benchmark (rebased)



Source: FTSE Russell and LSEG. All data as of September 30, 2024. Past performance is no guarantee of future results.

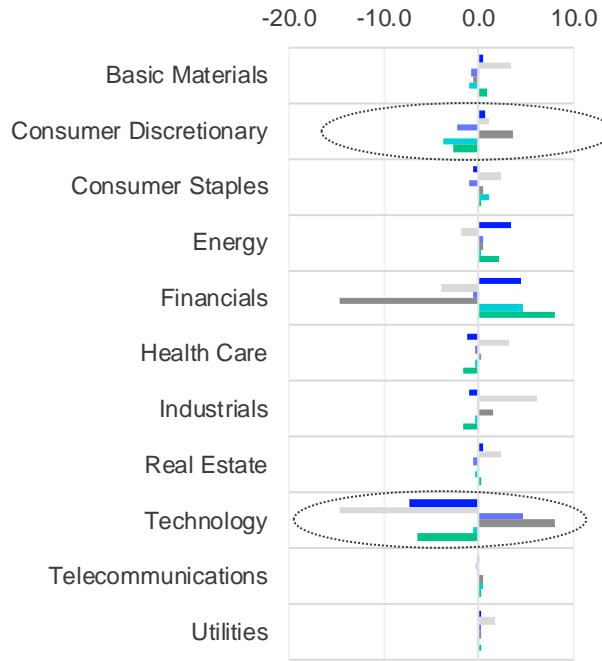
# Emerging Markets Factor Performance & Industry Attribution — 3M

## Factor performance lags broadly

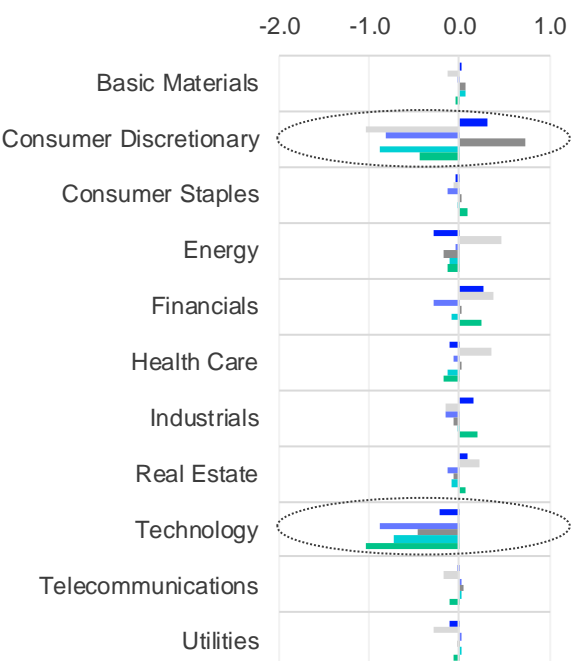
EM factors lagged the benchmark in Q3, except Value which marginally outperformed. Momentum was the worst-performing factor, in a sharp reversal from the first two quarters, followed by Low Vol and Yield. Many factors were helped by an overweight to Discretionary, which outperformed the benchmark, and an underweight to Tech, which underperformed the benchmark. But most factors were hurt by negative selection within Discretionary and Tech.

2024 Q3	Relative to Benchmark (TR %)					
FTSE Emerging	Value	Size	Mom	Quality	Low Vol	Yield
9.7%	0.0	-0.6	-2.7	0.0	-2.1	-1.6

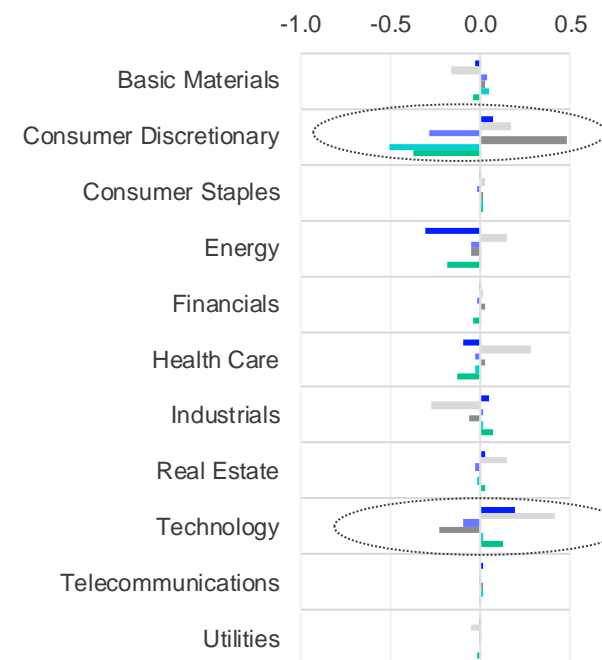
Industry active weights, 3M average



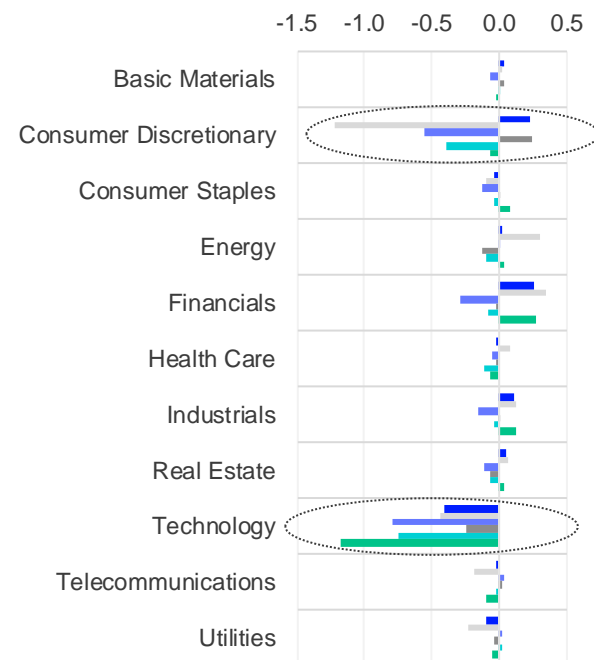
Total industry effects, 3M



Industry allocation effects, 3M



Stock selection within industry, 3M

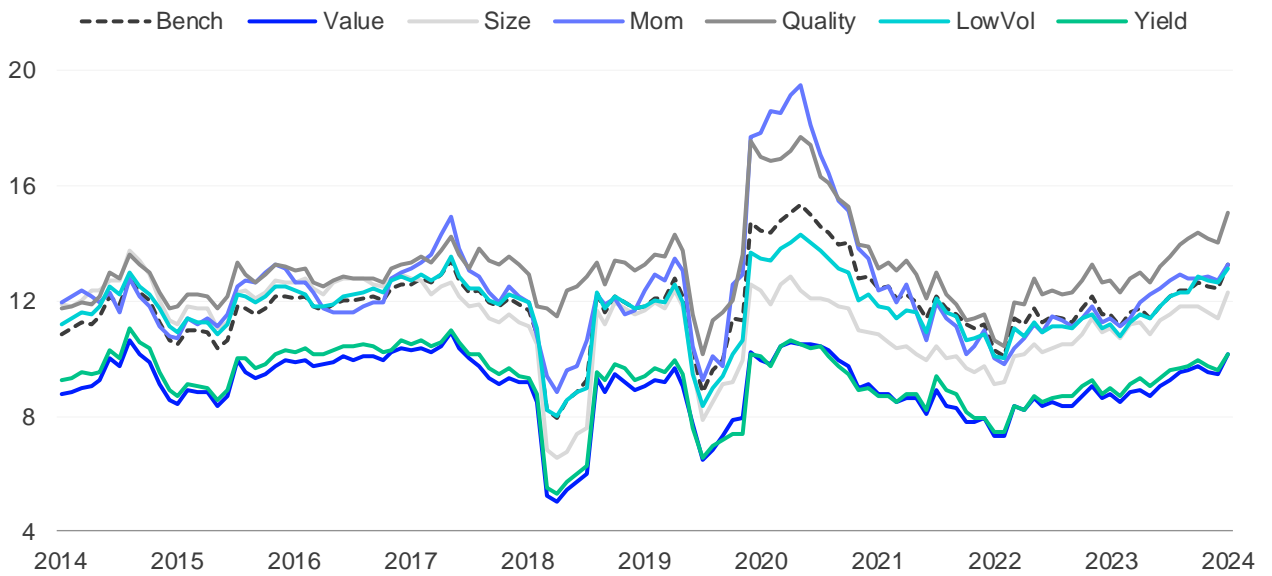


Source: FTSE Russell and LSEG. All data as of September 30, 2024. Past performance is no guarantee of future results.

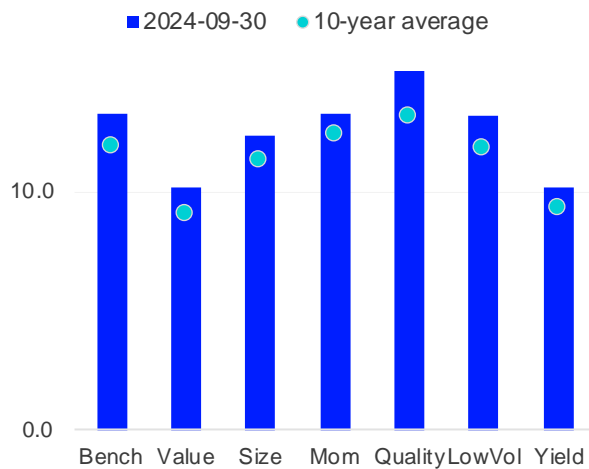
# Emerging Markets Factor Valuations

All EM factor forward P/Es expanded during Q3 as they have over the last two years. In absolute terms, 12M forward P/Es for all factors were 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 was steady at 48%, above its long-term average of 45%. In relative terms, Momentum, Size and Yield traded at a discount to their long-term averages.

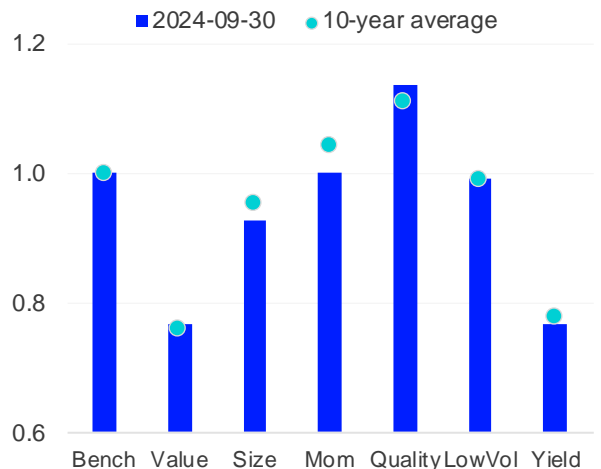
FTSE Emerging – Absolute 12M forward P/Es



Current Absolute 12M forward P/Es vs history



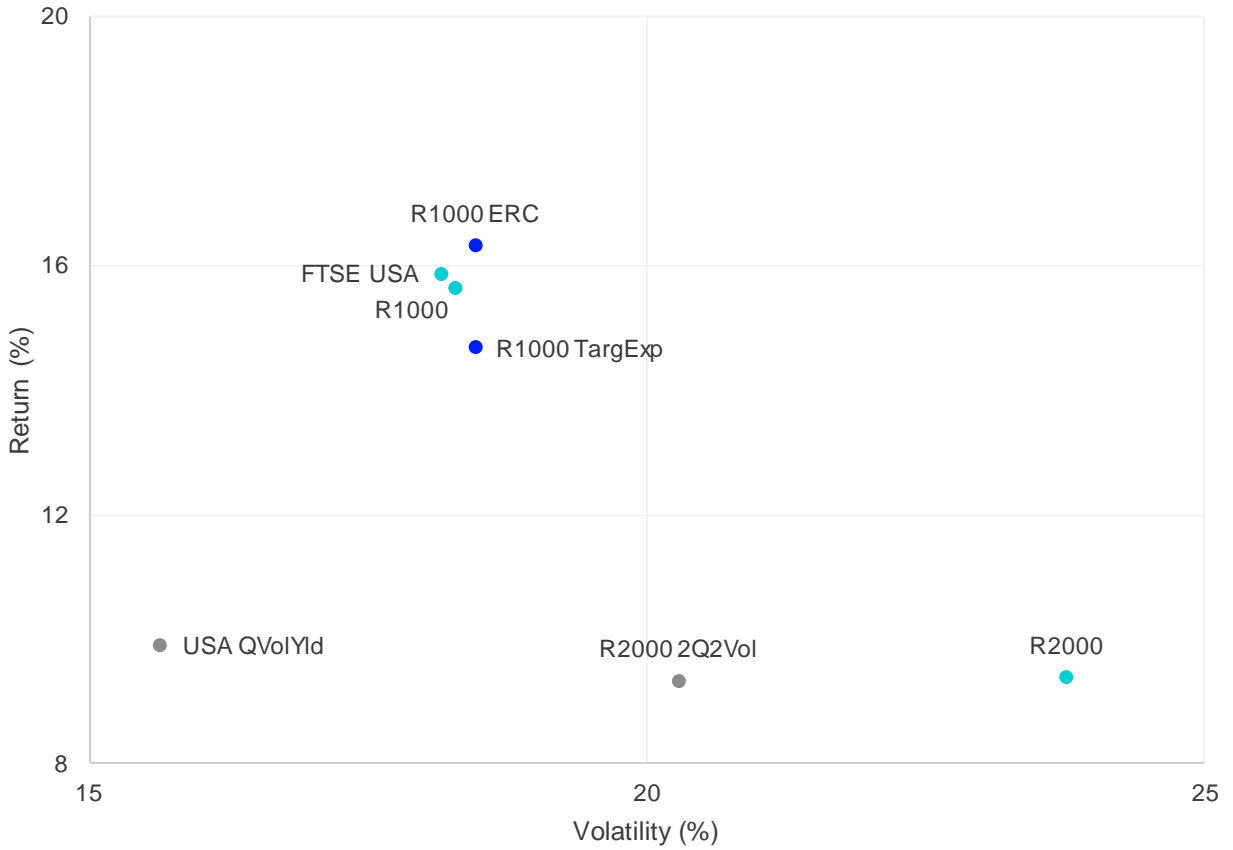
Current Relative 12M forward P/Es vs history



Source: FTSE Russell and LSEG. All data as of September 30, 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 %)

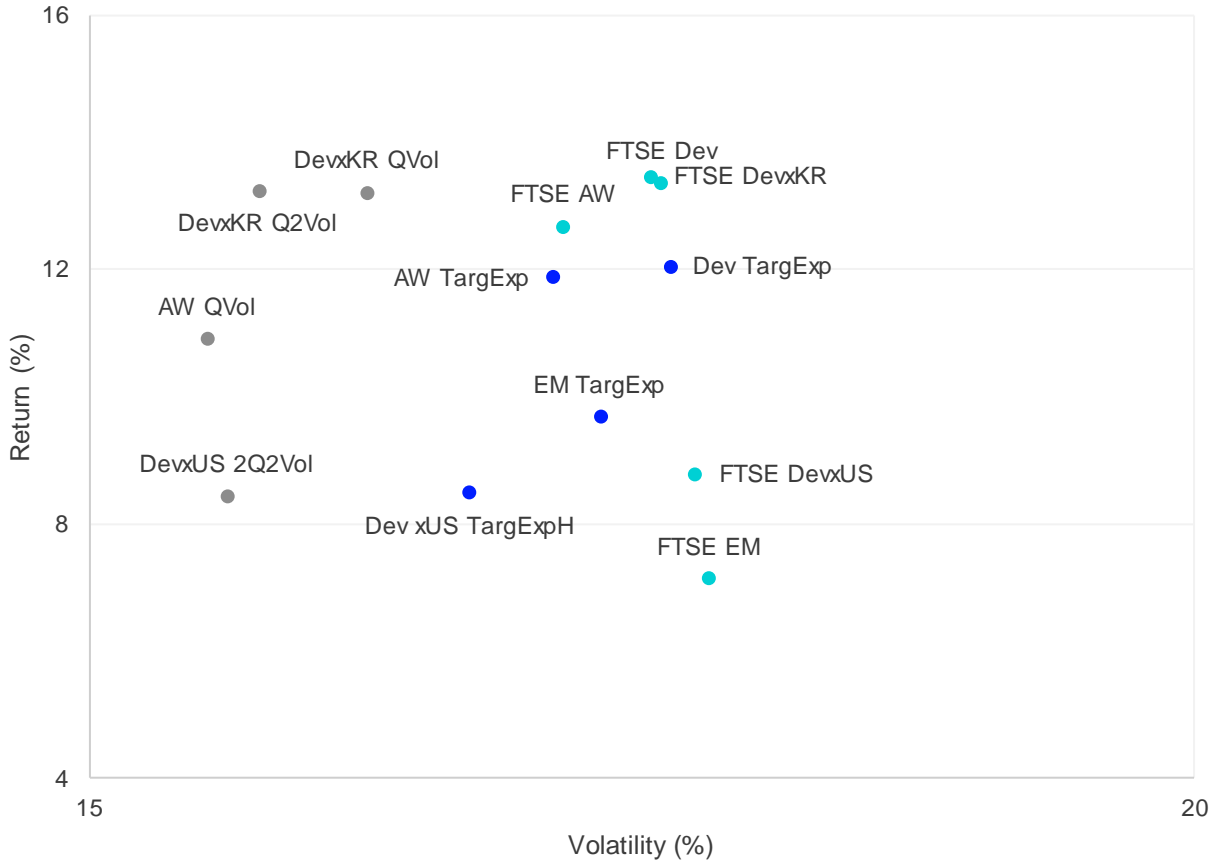
Label	Index	1-yr return	5-yr return	5-yr volatility
<b>Diversified Indices</b>				
● R1000 ERC	Russell 1000 Comprehensive Equal Factor Risk Contribution	35.6	16.3	18.5
● R1000 TargExp	Russell 1000 Comprehensive Target Exposure Factor Index	30.8	14.7	18.5
<b>Defensive Indices</b>				
● R2000 2Q2Vol	Russell 2000 2Qual/2Vol 3% Capped Factor Index	28.8	9.3	20.3
● USA QVolYld	FTSE USA Qual/Vol/Yield Factor Index	21.1	9.9	15.6
<b>Benchmarks</b>				
● FTSE USA	FTSE USA Index	36.2	15.9	18.2
● R1000	Russell 1000® Index	35.7	15.6	18.3
● R2000	Russell 2000® Index	26.8	9.4	23.8

Source: FTSE Russell and LSEG. All data as of September 30, 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
<b>Diversified Indices</b>				
● AW TargExp	FTSE All-World Comprehensive Target Exposure Factor Index	28.2	11.9	17.1
● Dev TargExp	FTSE Developed Comprehensive Target Exposure Factor Index	28.3	12.1	17.6
● Dev xUS TargExpH	FTSE Developed ex US Comprehensive High Target Exposure	27.4	8.5	16.7
● EM TargExp	FTSE Emerging Comprehensive Target Exposure Factor Index	28.3	9.7	17.3
<b>Defensive Indices</b>				
● AW Qvol	FTSE All-World Target Exposure Qual Vol Factor Index	28.2	10.9	15.5
● DevxKR Q2Vol	FTSE Developed ex Korea Qual/2 Vol Factor Index	26.1	13.2	15.8
● DevxKR QVol	FTSE Developed ex Korea Qual/Vol Factor Index	25.6	13.2	16.3
● DevxUS 2Q2Vol	FTSE Developed ex US 2Qual/2Vol 5% Capped Factor Index	22.9	8.4	15.6
<b>Benchmarks</b>				
● FTSE AW	FTSE All-World Index	32.1	12.7	17.1
● FTSE DevxKR	FTSE Developed ex Korea Index	32.9	13.5	17.5
● FTSE DevxUS	FTSE Developed Ex US Index	24.9	8.8	17.7
● FTSE Dev	FTSE Developed Index	32.5	13.4	17.6
● FTSE EM	FTSE Emerging Index	28.5	7.1	17.8

Source: FTSE Russell and LSEG. All data as of September 30, 2024. Past performance is no guarantee of future results.

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## 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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For over 35 years we have been at the forefront of driving change for the investor, always innovating to shape the next generation of benchmarks and investment solutions that open up new opportunities for the global investment community.

## CONTACT US

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